Charter Schools Institute
The State University of New York

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CHARTER SCHOOLS INSTITUTE

Proposal Transmittal Form

1. School Information

Proposed Name of Charter School: Brooklyn Success Academy Charter School 3

Proposed Location (School District or CSD & Region for NYC): NYC CSD 13 or 14

Enter Planned Enrollment & Grades	Grades Served	Proposed Enrollment
Year 1	K-1	188
Year 2	K-2	249
Year 3	K-3	401
Year 4	K-4	574
Year 5	K-5	689

Desired School Opening Date: August 2012

Desired Initial Charter Term: 5 Years

2. Proposed Affiliations

Educational Service Provider or Management Company (if any): Success Charter Network, Inc.

Public Contact Info (Name & Phone #): Jenny Sedlis, 646-747-6194

Partner Organization (if any):

Public Contact Info (Name & Phone #):

3. Lead Applicant Contact Information

Lead Applicant Name: Eva Moskowitz

Mailing Address: Success Charter Network [redacted]

City: New York State: NY Zip Code: 10027

E-Mail Address: [redacted] Home Phone #:

Cell Phone #: [redacted] Office Phone #: [redacted] Office Fax #: [redacted]

Lead Applicant Media/Public Contact Phone # (required): 646-747-4641

Lead Applicant Signature: Eva Moskowitz

Note: Authenticated Digital Signatures accepted. If a handwritten signature is used, at least one copy of the submitted proposal must bear an original (e.g., not photocopied) signature. By signing this Proposal Transmittal Form, the Lead Applicant certifies that the information contained in this Proposal to establish a charter school pursuant to the New York Charter Schools Act of 1998 (as amended) with the State University of New York Board of Trustees is true and accurate to the best of his or her knowledge.

Submit Completed Proposal to:

Charter Schools Institute
State University of New York
41 State Street, Suite 700
Albany, New York 12207
Phone: (518) 433-8277
Fax: (518) 427-6510
Web: www.newyorkcharters.org

FOR OFFICIAL USE ONLY: Received By: mh J2011 - 03 Date Received: 2/25/11

Charter Schools Institute
The State University of New York

Proposal Summary Form

1. Charter School Name

Brooklyn Success Academy Charter School 3

2. Charter School Location

New York City, Community School District 13 or 14

3. Anticipated Opening Date

August 2012

4. Management Organization Name (if applicable)

Success Charter Network, Inc

5. Other Partner Organization(s) (if applicable)

6. Student Population and Grades Served

	School Year	Grades Served	Total Enrollment
Year 1	2012-2013	K-1	188
Year 5	2017-2018	K-5	689

7. Applicant(s)

	Name	Bio
X	Eva Moskowitz	Ms. Moskowitz, a resident of Harlem and mother of three public school children, is a former City Council Member who successfully managed the startup and operation of seven other charter schools.

Add New Applicant

8. Proposed Board of Trustees

	Name	Bio
X		A list of proposed Trustees will be sent under separate cover.

Add New Trustee

9. Overview of the Proposed Program

The mission of the proposed charter school is to provide children in New York City with an exceptionally high quality education that gives them the knowledge, skills, character, and disposition to meet and exceed New York State standards and the resources to lead and succeed in school, college, and a competitive global economy. To do this, the school will operate on both an

extended school year and extended school day. The first day of the 2012-2013 school year will be on or around August 17, 2011 and the last day will be on or around June 20, 2012; subsequent years will follow a similar ten-month calendar. Breakfast will be served from 7:15am to 7:45am and instruction will start promptly at 7:45am. The school day will conclude at 4:00pm for Kindergarten, 4:30pm for first through fourth graders and 5:30pm for fifth graders.

The proposed curriculum follows Success Charter Network's (SCN) successful program that embraces whole-child education. Because of the extended school year and school day, the school model is able to offer a variety of subjects including SCN's developed THINK Literacy, TERC Investigation math, SCN's discovery based Science program, project based social studies and geography program, fine arts, chess, sports, and a variety of other programs including music, yoga, ballroom dancing, and theater.

In addition to a rich academic curriculum, the proposed charter intends to teach a set of core values to its scholars. These include ACTION: Agency, Curiosity, Try and Try, Integrity, Others, and No Shortcuts. The goal is to ensure the graduates are not only intellectual scholars, but also good citizens.

Every eight weeks students will be formally assessed using the Fountas and Pinnell reading assessment. The results are immediately reviewed and teachers create action plans for all scholars. Using a modified Response to Intervention (RTI) system, students' learning needs are assessed and students are placed into or graduated out of Tier I (in-class differentiation), Tier II (pullout and push-ins with a Special Education teacher), or Tier III (special education services). Strategies and specific goals are set for each of the eight weeks in the upcoming cycle.

SCN views its teachers and school leaders as Olympic athletes who must constantly train and improve their skills. Professional development is an essential ingredient of this charter and is a key professional responsibility of our teachers. Each year, teachers will receive approximately 400 hours of quality professional development. This starts with an intensive 4 week program before school starts and continues every Wednesday for 3 hours throughout the school year and 8 professional development days. In addition, teachers are given a wealth of opportunities to observe of excellent teachers at other schools (both inside and outside of SCN), visit other high-performing schools, and attend workshops designed to master effective teaching techniques. Teachers and school leaders are also sent to outside conferences, such as the Teachers' College Conferences, the National Council of Math Conference, National Science Teacher Association Conference, the DMI Math Conference, and the Understanding by Design Conference.

The school will have a principal focused solely on teaching and learning and Business Manager focused on the operational and financial aspects of the school. A Student Achievement Coordinator will assist the principal in special education and test administration. An Operations Manager will focus on facilities and supply management and a Community Relations Coordinator will focus on parent involvement and communication. In subsequent years, the school leadership team will expand to include an Assistant Principal, a Dean of Students, and a Testing Coordinator.

The proposed location is Community School District 13 or 14. There are various schools that have space available in both of these Community School Districts and they have been identified by the New York City Department of Education as district in need of additional choices.

1. Applicants and Founding Group

(a) Applicant Information

Provide a brief description of the applicant(s) -- relevant background and experience, including whether they are a parent, teacher, administrator and/or community resident.

Eva Moskowitz
[redacted]
New York, NY 10027
Work Telephone: [redacted]
E-mail: [redacted]
Facsimile: [redacted]

Media Contact: Jenny Sedlis
Email: [redacted]
Work Telephone: [redacted]

Ms. Moskowitz, a native and current resident of Harlem and mother of three public school children, is a former New York City Council Member and Chair of the Council's Education Committee. During her tenure as Chair, she held more than 100 oversight hearings. No aspect of education – from toilet paper to teacher quality – was too insignificant or too controversial to be explored. She remains a forceful advocate for education. She returned to her roots in teaching to implement everything she learned while visiting many of the New York City's 1,600 zone and public charter schools. After completing her Ph.D. in American History at Johns Hopkins University, Ms. Moskowitz was a history professor and taught civics at Prep for Prep, a program for gifted minority students. Ms. Moskowitz is the Founder and Chief Executive Officer of Success Charter Network. Ms. Moskowitz currently runs 7 schools and oversees more than 350 employees. Ms. Moskowitz currently runs the number one charter school in New York City, Harlem Success Academy 1. More information on the Success Charter Network and its relation to the schools can be found in Attachment 6.

Ms. Moskowitz is at least 18 years of age. Please see her attached resume on the following pages.

(b) Founding Group Members

Use the following table to list the active members of the founding group (including the applicants) who developed this proposal. Include a brief description of their relevant experience or skills, their role in the group or contributions to the proposal, and their proposed role, if any, in the school if it is approved, e.g., school leader, teacher, board member, service provider, etc.

Name	Relevant Experience/Skills and Role in Founding Group	Proposed Role(s) in School (If any)
Eva Moskowitz	Chief Executive Officer, Success Charter Network	Chief Executive Officer of Charter Management Organization; support start-up and operation of proposed school
Keri Hoyt	Chief Operating Officer, Success Charter Network	Chief Operating Officer of Charter Management Organization; support start-up and operation of proposed school; facilitate negotiations with NYC DOE
Jenny Sedlis	Director of External Affairs, Success Charter Network	Manage public outreach and student recruitment, manage marketing operations, oversee board recruitment and manage donor cultivation
Kristina Exline	Director of Operations and Student Affairs, Success Charter Network	Oversee start-up from a non-instructional standpoint; oversee facilities renovation and preparation; assist in hiring of non-instructional leadership.
Paul Fucaloro	Director of Instruction, Success Charter Network	Provide instructional start-up support and assist in training and development of school leaders.
Donna Rossi	Director of Human Resources, Success Charter Network	Manage new teacher and leader recruitment and other human resources functions
Laura Kanter	Director of Instructional Development, Success Charter Network	Manage curriculum development and services for students with disabilities
Arin Lavinia	Director of Literacy, Success Charter Network	Oversee rigorous literacy program and develop reading initiatives

(c) In addition, please attach a resume or biographical statement for each member of the founding group.

Eva Moskowitz (Chief Executive Officer) As founder and the Chief Executive Officer, Ms. Moskowitz is responsible for overseeing all activities and functions of Success Charter Network. As the former Education Chair of the New York City Council, Ms. Moskowitz was hailed by the New York Times as the Council's "unapologetically demanding voice." She insisted on two things from the city's education bureaucracy: accountability and competence. In her widely publicized education hearings, Ms. Moskowitz would ask what the city was doing to measure and improve teacher quality. During her tenure as Education Chair, she visited over 400 schools and examined all elements of school operations from financial reports to operational processes. Ms. Moskowitz has examined schools, school networks, and educational service providers both good and bad to craft the SCN school model. She demands that everyone on her staff raise the bar for competence and continue to think of new, innovative, and more efficient ways of handling school operations and instruction so that SCN can bring about real educational equity and achievement for its students.

Keri Hoyt (Chief Operating Officer) Ms. Hoyt started with the Princeton Review in 1991. In quick succession she ran Marketing for the Palo Alto office, ran the Graduate Services department for the Boston office, and then took over the Boston office itself. With Ms. Hoyt at the helm, the Boston office doubled in revenue and received the best office award 5 years in a row. While growing her team and her revenue line, Ms. Hoyt established a company-wide reputation as an innovative thinker, motivational manager, and emerging leader. It was this reputation and her stellar results that attracted the attention of the Princeton Review corporate office in New York City. In 2001, Keri moved to New York where her input was eagerly sought in many of the company's initiatives including Content, Higher Education Services, Admissions Services, Supplemental Education Services, Test Prep, and Institutional products and sales. In 2004, the company sent Ms. Hoyt to Wharton's Executive MBA program where she excelled. As a freshly minted MBA, Ms. Hoyt took on increasingly larger responsibilities within the company naming her one of its most senior executives. It has always been the impact she and the company's services had on students that motivated Ms. Hoyt. She is eagerly applying her hard earned knowledge and experience to Success Charter Network as she drives the organization's business operations, including conceptualizing strategy, implementing operating plans and budgets, and achieving targets through oversight and leadership of the Finance, Human Resources, External Affairs, Operations, Instructional Development and Data and Accountability departments.

Paul Fucaloro (Director of Instruction) Mr. Fucaloro has an M.B.A. in Statistical Marketing Research and over 38 years of education experience working as a classroom teacher, math specialist, literacy coach, and teacher trainer with the New York City Department of Education. He is a trained statistician, an adjunct/associate professor at Long Island University, and an expert in SCN's literacy and math curricula. He has also worked for the Princeton Review preparing students to excel at high stakes standardized tests. Mr. Fucaloro has been with SCN since its founding as the Director of Instruction. He is responsible for ensuring that school principals are consistently working to improve their leadership skills and their schools. Mr. Fucaloro spends a significant portion of his time working directly with SCN principals coaching them on how to effectively observe and provide feedback to teachers. He also works directly with teachers at SCN schools to ensure they constantly and consistently provide the highest level of instruction possible. He regularly observes teachers in order to provide coaching, feedback, and support that will help teachers to constantly improve their pedagogical techniques. Mr. Fucaloro also is responsible for the development and refinement of the SCN curriculum. He regularly meets with outside curricula providers to examine and evaluate their products. He also evaluates the strengths and weaknesses of the SCN curriculum in order to determine how to best improve it. Mr. Fucaloro is also responsible for preparing students for success on high stakes tests. He works with the Data and Accountability Department and school leaders and teachers to develop and implement a plan to ensure student success on New York State mandated assessments.

Jenny Sedlis (Director of External Affairs) Ms. Sedlis was one of the founding members of Success Charter Network in 2006. As the Director of External Affairs, she oversees all Board of Trustees interactions. Additionally, she oversees all government relations and compliance with Charter Schools Institute regulations and deadlines. Ms. Sedlis is also the primary point of contact for all SCN school boards, ensuring that each member has all the information necessary to closely monitor the school. She develops all of each SCN school's marketing and branding materials, and runs a student recruitment effort that in previous years has led to oversubscribed admissions lotteries. Ms. Sedlis manages all media relations. Ms. Sedlis manages development for SCN and its schools, overseeing relations with a dozen national foundations. Prior to joining Success Charter Network, Ms. Sedlis worked as Director of Community Affairs for City Council Member Eva Moskowitz.

Kristina Exline (Director of Operations and Student Affairs) As the Director of Operations and Student Affairs, Ms. Exline is responsible for most non-instructional operations at SCN schools. She trains and manages Business Managers and School Operations Managers who manage the day-to-day non-instructional operations of each school, allowing the principal to focus solely on teaching and learning. She also oversees the enrollment and lottery process for new student admissions. Ms. Exline also coordinates the successful start up of each new SCN school. This process includes arranging for facilities renovations, procuring necessary furniture, equipment, and supplies, and ensuring all operational policies and procedures are in place and fully explained to the staff. Her other responsibilities include logistical planning for large-scale events, overseeing the writing and amending of charter applications for SCN schools, and procuring appropriate insurance for SCN schools. Ms. Exline is a graduate of the University of Iowa. Prior to joining SCN, she worked on a number of national and statewide political campaigns. In 2003, Ms. Exline joined Eva Moskowitz's City Council office as her Senior Council Aide. She then went on and served as Ms. Moskowitz's Deputy Campaign Manager for her Manhattan Borough Presidency race where Ms. Exline recruited and trained a field staff of over 30 individuals.

Donna Rossi (Director of Human Resources) As the Director of Human Resources, Ms. Rossi currently leads a team that identifies and recruits qualified teaching, leadership, and operations candidates and runs them through an extensive and rigorous interview process that includes review of resumes, phone interviews, reference checks, demo lessons, and post-lesson feedback sessions. For the 2009-2010 school year, her team pored over more than 17,000 resumes in an effort to staff SCN's four existing schools and three planned schools. She also ensures that all employees are fingerprinted according to relevant laws and that all teaching staff members have appropriate certifications. Additionally, she oversees benefits administration and ensures that each SCN school is in compliance with all appropriate tax and labor laws. Ms. Rossi comes to SCN with eight years of increasingly senior staff recruitment experience. She graduated from Colorado State University and received her Masters degree from New School University. Ms. Rossi managed a team of direct-hire recruiters of not-for-profit staff where she recruited non-profit executives. She was last a Program Manager at the Social

Enterprise Program at Columbia Business School where she built a non-profit and worked with staff, students, and other stakeholders.

Laura Kanter (Director of Instructional Development) As the Director of Instructional Development, Ms. Kanter provides the operational instructional support that school leaders and teachers require in order to successfully implement the SCN curriculum and school culture. She ensures that each school has the instructional supplies and equipment necessary so that school leaders and teachers can focus exclusively on student achievement without concerning themselves with the delivery of curricular supplies. She coordinates and oversees all curricular contracts and special education services and paperwork for all SCN schools. She also plans professional development activities for teachers and leaders at SCN schools. This begins with a three-week summer orientation and continues throughout the school year. She consults with school leaders and faculty to develop and refine a professional development plan that addresses specific needs of the faculty in order to improve teaching skills and raise student achievement. Throughout the school year, Ms. Kanter works with the Data and Accountability Department to examine student assessment data in order to increase instructional effectiveness. Ms. Kanter also coordinates and leads the specific aspects of new staff orientation that introduces new teachers and leaders to the SCN culture and values. Ms. Kanter has been with SCN since its founding, and has served in her current capacity since April 2007. A graduate of Yale University, Ms. Kanter began her career in education as a teacher in Shanghai, China. While there, she taught social studies and English as a Second Language at an international school while simultaneously researching effective pedagogical techniques that allow students with special education needs to achieve at an extremely high level.

Arin Lavinia (Director of Literacy) As Director of Literacy, Ms. Lavinia plays a critical role in the development and refinement of the SCN balanced literacy program, with a strong focus on reading comprehension. She incorporates a variety of methods including readers' and writers' workshop, textual analysis, guided reading, word work, and more. Ms. Lavinia is responsible for the development of a network-wide curriculum map for literacy across all grades served and she works with teachers and school leaders to create unit and lesson plans to ensure comprehensive implementation. She coordinates with leaders to develop SCN reading and writing benchmarks, has created a literacy assessment plan, and oversees the planning and provision of professional development in the areas of effective reading and writing instruction, reading skills and strategies, and other literacy-focused areas. Ms. Lavinia has extensive experience in her field. After earning a Masters in Education from Lesley University, Ms. Lavinia taught first grade in a New York City public school before moving to the private sector to consult with schools and teachers in literacy planning and implementation. SCN is proud to have Ms. Lavinia's expertise driving the literacy program.

(d) Founding Group Origin

Describe how the founding group came together and the relationship of its members to each other.

The founding group members have worked closely together as members of the Success Charter Network (SCN). SCN team members have successfully facilitated the proposals, start-up, and highly successful operation of seven existing Success Academy Charter Schools, and have already received Regents approval for two more schools planned to open in the fall of 2011. Ms. Hoyt joined Success Charter Network in June 2009 after 18 successful years at The Princeton Review. Ms. Sedlis has worked with Ms. Moskowitz for 8 years and is a founder of Success Charter Network. Ms. Moskowitz is the founder of the first SCN school, Harlem Success Academy Charter School, and the founder and CEO of Success Charter Network. Please see above for detailed biographies of each of the applicant team members.

(e) Proposal Development

Describe the process used to develop this proposal. Your response should address who contributed to designing the school and to the writing of the proposal, which may include individuals outside of the founding group such as advisers or consultants.

Success Charter Network (SCN) has been improving the Success Academy school model continuously since 2006. Each element of the school design has been carefully chosen to ensure that children master reading and math skills, think deeply, problem-solve, write elegantly and clearly, and love being in school. The school model is the same at each of the approved nine Success Academies. School-based staff members often recommend ways to improve upon the school design and those changes are made across all schools. SCN leadership also often recognizes strengths of particular schools and ensure those practices are implemented at other schools. This proposal was developed by a committee of SCN leadership.

EVA MOSKOWITZ

[redacted] NY 10026 · [redacted]

[redacted]

[redacted]

school repairs, etc.).

- Created data management system for tracking constituent cases.

[redacted]

POLITICAL AND FUNDRAISING ACCOMPLISHMENTS

- Successfully elected to the City Council three times, raising over $900,000 during the course of the three elections.
- Ran $1.6 million Democratic primary campaign for Manhattan Borough President, raising funding in record time of 15 months, primarily through cold donor calls.
- Endorsed by all major New York City newspapers, including *The New York Times*, *The New York Daily News*, *The New York Post*, *Newsday*, *The New York Sun*, and *The New York Observer*.

ACADEMIC CAREER

Columbia University, *Chair of the faculty seminar in American Studies*	1996 – 1999
CUNY, *Assistant Professor of History*	1994 – 1995
Vanderbilt University, *Assistant Professor of History*	1992 – 1993
University of Virginia, *Visiting Professor of Communications and Mass Culture*	1989 – 1990

SELECTED AWARDS AND BOARD MEMBERSHIPS

- Aspen Institute's Aspen-Rodel Fellowship in Public Service, one of 24 participants nationwide, 2005
- Democratic Leadership Council "Top Ten Rising Stars Award," 2000 and 2003
- Creative Achiever Award from ArtsGenesis and New York City Cultural Institutions Group Award for leadership on arts education, 2004
- Charter School Champions Award, New York Charter Schools Association, 2003
- Anti-Defamation League, New York Regional Board

PUBLICATIONS

- In Therapy We Trust: America's Obsession with Self-Fulfillment, Johns Hopkins University Press, 2001.
- *Some Spirit in Me*, documentary on the impact of feminism on the lives of ordinary women, Filmakers Library, 1999.
- City Council Reports:
    - *Lost in Space: Science Instruction in New York City Public Schools*
    - *Keeping Score: Can You Judge a School by its Report Card?*
    - *Reading in New York City Schools*
    - *Good Apples: Recruiting and Retaining Quality Teachers in New York City*
    - *A Picture is Worth a Thousand Words: Arts Education in New York City Public Schools*
    - *Too Little, Too Late: Special Education in New York City*
    - *Fair or Foul? Physical Education in New York City Public School*
    - *Correcting Juvenile Injustice: A Bill of Rights for Children Released from Custody*
    - *From The Mouths of Babes: New York City Public School Kids Speak Out*
    - *The Education Budget Guide for Parents*
    - *The Chancellor's Regulations Guide for Parents*
    - *Breaking Through the Static: How to Find Information about the Safety of Your Cell Phone*
    - *At an Unhappy Hour: The Ten Noisiest Bars in Manhattan*

EDUCATION

- John Hopkins University, Ph.D. in American History
- University of Pennsylvania, B.A. with Honors in History, Phi Beta Kappa

PERSONAL

- Mother of [redacted] who attend NYC public schools.
- Life-long New Yorker, avid cyclist, proficient in French.

2. Mission

Attach the mission statement for the proposed charter school.

The mission of the proposed charter school is to provide children in New York City with an exceptionally high quality education that gives them the knowledge, skills, character, and disposition to meet and exceed New York State and Common Core standards and the resources to lead and succeed in school, college, and a competitive global economy.

3. Enrollment

(a) Enrollment Plan

Use the following table to submit student enrollment information for the first five operational years of the proposed charter school. Be sure to include the following:

- **ages of the students to be served in each grade (for kindergarten, indicate the date by which a student must turn five in order to be eligible to enroll in the charter school (December 1 or 31));**
- **number of students to be served in each grade;**
- **total number of enrolled students for each year of the charter term;**
- **classes per grade; and**
- **average number of students per class.**

Grades	Ages	Number of Students				
		Year 1 2012-13	Year 2 2013-14	Year 3 2014-15	Year 4 2015-16	Year 5 2016-17
K	4-5	84	78	104	130	130
1	5-6	104	77	104	130	130
2	6-7		94	104	130	130
3	7-8			89	99	124
4	8-9				85	94
5	9-10					81
Ungraded						
Total Students		188	249	401	574	689
Classes Per Grade		3- gr. K 4- gr. 1	3- gr. K 3- gr. 1 4- gr. 2	4- gr. K 4- gr. 1 4- gr. 2 3- gr. 3	5- gr. K 5- gr. 1 5- gr. 2 4- gr. 3 3- gr. 4	5- gr. K 5- gr. 1 5- gr. 2 5- gr. 3 4- gr. 4 3- gr. 5
Average Number of Students Per Class		27	25	27	26	26

During its initial charter term, the proposed charter school will serve students in kindergarten through fifth grade. To be eligible for enrollment, students must attain the age of five years by December 31. Students may occasionally be promoted early or retained in a grade, as determined by teachers, instructional leaders, and special education staff; this may occasionally result in the enrollment in a particular grade of a student older or younger than the ages shown above.

3. Enrollment

(b) Enrollment Rationale

Provide the rationale for the enrollment plan submitted as your response to Request No. 3(a) above. In your rationale please address the following:

- **the reason for choosing to serve the grades specified and the number of students in each grade;**
- **the extent to which the proposed charter school's grade configuration aligns with the school district of its proposed location; and**
- **the pattern of growth over time, including assumptions for each grade regarding student attrition and any plans to replace students or limit the intake of students.**

The proposed schools will target an area with particularly high demand for choice in public education. Students in New York City School District 13 consistently perform poorly on state and city assessments. Only 43 % of students in grades 3, 4 and 5 met the most basic standards of the 2010 English Language Arts assessments and 52 % of District 13 students in grades 3, 4 and 5 met the basic standards of the 2010 Mathematics assessments. Students in New York City School District 14 consistently perform poorly on state and city assessments. Only 39 % of students in grades 3, 4, and 5 met the most basic standards of the 2010 English Language Arts assessments and only 51 % of District 14 students in grades 3, 4, and 5 met the basic standards of the 2010 Mathematics assessments.

There is great demand for public charter schools in Districts 13 and 14. It is clear there are thousands of children who need access to a high quality education. The applicant intends to open three schools that will increase family access to an exceptional free public education. There is great demand for additional high quality educational choices in this area. This was evidenced by the 7,000 students who applied for just 1,100 spaces at Success Academies during the admissions season for the 2010-2011 school year leaving 5,900 students on wait lists for Success Academies alone. Across the city there are thousands of more students anxiously awaiting a spot to open in a top performing school. This shows that there is a citywide demand for high quality education that is simply not being met.

By enrolling more students in the primary years in an academically rigorous program, the school will help prevent a larger number of students from falling behind their more affluent peers. Instead of trying to catch disadvantaged middle or high school students up with their more affluent peers, the school will make sure these disadvantaged students match or exceed the level of their peers from the very beginning of their school

experience, giving them a firm foundation to prepare them for middle school, high school, college, and beyond.

The ultimate goal of the school is to give students the academic and character skills they need to graduate from college and succeed in life. In order to do this effectively, the school plans to expand one grade level per year and become a K-5 school by the fifth year of the school's charter. The applicant intends to seek approval to expand to serve grades K-8 in a subsequent charter term.

The enrollment chart found in Attachment 3(a) indicates the school's plans to admit new students in grades K, 1, 2, and 3 each year to reach the approximate total numbers listed. The student attrition rate is assumed to be ten percent each year. This rate assumption was calculated based on many factors including student attrition data from the four existing Harlem Success Academy Charter Schools with more than two years of operating experience, and student attrition data from other schools serving students in Districts 13 and 14.

While the school would work diligently to prevent student attrition, the calculated annual attrition rate of five percent is a realistic expectation for this proposed school.

More information on the school's admissions and enrollment process can be found in Attachment 36.

3. Enrollment

(c) Ultimate Enrollment Plan

Provide the grade span and enrollment size the school ultimately intends to serve (even if it would occur after the initial charter period) and the year it will reach that point.

The proposed charter school will initially serve grades K and 1 and will ultimately scale to serve grades K through 5 in the fifth year of the initial charter term, detailed in Attachment 3(a). The applicant intends to continue to scale to serve grades K through 8 in the second charter term, continuing to serve one additional grade each year. The proposed school would therefore likely reach full scale in the 2019-2020 school year with an approximate enrollment of 1,089 students.

3. Enrollment

(d) Collective Bargaining Waiver

If the charter school would enroll more than 250 students at any point during the first two (2) years of operation, indicate whether you are requesting a waiver from the requirement that all employees must be members of existing collective bargaining organizations in the school district where the charter school would be located.

The proposed school does not intend to exceed a total enrollment of 250 students in its first two years of operation and therefore does not plan to request a waiver of the requirement of collective bargaining.

4. Community Need and Impact

(a) Community Description

Describe the community from which the proposed school will recruit and draw its students. Your response should include:

- **community and school demographics;**
- **rationale for selecting that community;**
- **local public schools and grade configurations; and**
- **existing educational options.**

(b) Target Population

Describe the specific population of students that the proposed charter school intends to serve.

(c) Need for the Proposed Charter School

Explain the need for this charter school in this community, including the performance of the local schools.

(d) Programmatic Impact

Describe the *programmatic* impact of the establishment of the proposed charter school on existing public and nonpublic schools in the same geographic area.

(e) Five Percent Districts

If the proposed charter school will be located in a district where more than five percent of students are enrolled in charter schools, either provide evidence that the school district of location approves of the establishment of the proposed charter school or explain how the establishment of the proposed charter school will have a "significant educational benefit" to the students who attend that school.

As described in greater detail in Attachment 3(b), the communities served by the proposed charter schools have a very strong need and demand for expanded choice in quality public education. New York City Community School Districts 13 and 14, the proposed location for the charter school, are characterized by children eligible for free or reduced price lunch, low-income families, and schools that consistently underperform when compared to other schools in the city of New York, particularly their more affluent peers. While District 13 has only 4.3% limited English proficiency, 71.8% of the population is eligible for Free or Reduced Price Lunch program. Over 86% of District 14 is eligible for FRPL and 12.7% of its population is classified as LEP. The area is also characterized by a range of ethnic groups; the combined area formed by Districts 13 and 14 are approximately 41% white, 30% black, 21% Hispanic, and 5% Asian.

Disappointingly, the zone public schools of Brooklyn have allowed double-digit achievement gaps between the performance of white students and their African American and Hispanic peers. This gap is even more pronounced when income is considered and the gap continues to widen as students get older.

There is great demand for public charter schools in Manhattan, the Bronx and Brooklyn. Whether one cites the one of the 7,000 students who applied for just 1,100 spaces at Success Academies during the admissions season for the 2010-2011 school year or one of the thousands of students who applied for a shrinking DOE gifted and talented program, it's clear that the supply of high quality educational options is outstripped by demand. The proposed schools will give Brooklyn students additional choices that will give them a firm foundation to prepare for middle school, high school, college, and beyond.

These new public charter schools expect to influence zone public, public charter, and non-public schools by setting high expectations and placing a greater emphasis on teaching core subjects to prepare students to meet and exceed state standards. Opening the proposed charter schools in these districts will bring a new, high-performing educational option to vastly increase access to excellence, including a culture of rigor and best practices.

Zone schools that are co-located with existing Success Charter Network (SCN) schools have already begun adopting some of the SCN best practices. For example, one school has modeled parts of its school culture on a Harlem Success Academy, including posting college paraphernalia on classroom doors and hallways. Strong academic performance by the new charter school's students using the Success Charter Network curriculum and learning philosophy will demonstrate to the District that all children, regardless of background, can learn and will hopefully influence District decisions on programming. Any school district official, or official from a charter or nonpublic school will be welcome at any time to observe and benefit from the model of success at the new charter school.

The Success Charter Network also expects to influence the public education system by educating a group of at-risk students at a very high level, preparing them to succeed in middle school, high school, college, and beyond. This high-level of preparation will eliminate the achievement gap for these students. It will allow the high schools that enroll these children to teach them rigorous academic courses rather than try to catch them up to meet the academic prowess of their more affluent peers.

The impact of the proposed charter school will therefore be not only an additional and much-needed new educational option for families, but will also serve as an example of excellence. In addition, SCN believes in sharing best practices at every opportunity, from curriculum to professional development to assemblies. The applicants and SCN want all children to receive an excellent education and know that zone schools do not enjoy many of the freedoms that public charter schools have. The Board looks forward to learning from the deeper experience that many zone schools have by fostering sharing and collaboration amongst each other that can occur when educating children comes first.

5. Partner Organization

Describe any partner organizations that will have a significant relationship with the proposed school. For each partner organization provide the following:

- **name of the organization;**
- **description of the nature and purpose of the proposed school's relationship with the organization;**
- **description of the process and criteria used to select the partner organization, including other organizations considered;**
- **proof of the legal status of the organization (e.g. New York not-for-profit corporation, university, college, museum or educational institution) and whether or not the organization has authority to do business in New York;**
- **proof of tax-exempt status under Internal Revenue Code section 501(c)(3);**
- **letter of intent or commitment from a bona fide representative of the partner organization indicating that the organization will be involved in the charter school and the terms and extent of its involvement; and**
- **name of a contact person for the partner organization, along with the address, phone number, facsimile number (if applicable), and e-mail of such contact person for the partner organization.**

The proposed charter school does not intend to form a significant relationship with a partner organization.

6. Management Organization

Describe any organization that will have significant responsibility for managing the proposed school's educational program, staffing, operations and/or other aspects of the school. Provide the following:

- **name of the organization;**
- **detailed explanation of the extent of the organization's proposed role in the governance, management and/or operation of the school;**
- **description of the process and criteria used to select the management organization, including other organizations that were considered, and the rationale for selecting this organization;**
- **description of the role of the management company in selecting proposed members of the school's board of trustees;**
- **draft management contract or, at minimum, term sheet indicating the fees proposed to be paid by the proposed school to the management organization, the length of the proposed contract, the terms of the contract's renewal, and provisions for termination; and**
- **copies of the last two contracts that the management organization has executed with operating charter schools (in New York or other states) and, if applicable, the status of those charter schools' applications for tax-exempt status under section 501(c)(3) of the Internal Revenue Code.**

Note: Management organizations must complete a Due Diligence Questionnaire in conjunction with this proposal.

The proposed charter school will be part of the network of schools run by the Success Charter Network (SCN), a 501(c)(3) non-profit organization that functions as a charter management organization. Please see the attached organization chart for the Success Charter Network.

Attached are copies of the contractual agreements into which SCN has entered with Harlem Success Academy 5 and Bronx Success Academy 1; the management contract for the proposed school will be substantially similar.

SCN was founded to create a replicable elementary and middle school model that would give all students a phenomenal education and bring high quality education to underserved parts of New York City. Each SCN school is dedicated to the mission of providing New York City elementary students with the knowledge, skills, character, and disposition to meet and exceed New York State standards and give them the resources to lead and succeed in the school, college, and life.

Consisting of intelligent, hard-working, and passionate individuals with impressive accomplishments and experience in the education field, SCN is in a unique position to provide considerable support to ensure that the school opens smoothly and operates at a consistently high level. Because of its highly skilled and experienced staff, SCN is fully capable of providing excellent support in the fields of finance, operations, human resources, data and accountability, instructional development, technology, and external affairs.

The SCN staffing plan is unique and unlike that of any other charter management organization. Most charter management organizations begin with just enough staffers to open and run a single school, and then grow their team as they open new schools. SCN takes a different approach. With a clear understanding of the risks of advance staffing, and with a close and continuous evaluation of the finances, SCN assembled a wide-ranging team early on. This allowed SCN to develop the systems and structures necessary for replicating its successful school model and to begin executing additional replication plans as soon as its next charters were granted, alleviating the scramble to find additional staff members when the SCN team needed to be focused on executing its replication plans.

After opening its first school in 2006, three more in 2008, and three more in 2010, SCN is using what it has already learned about opening, running, and replicating schools to open its next set of two additional schools in August 2011 and will be ready again for August 2012.

Eva Moskowitz (Chief Executive Officer) As founder and the Chief Executive Officer, Ms. Moskowitz is responsible for overseeing all activities and functions of Success Charter Network. As the former Education Chair of the New York City Council, Ms. Moskowitz was hailed by the New York Times as the Council's "unapologetically demanding voice." She insisted on two things from the city's education bureaucracy: accountability and competence. In her widely publicized education hearings, Ms. Moskowitz would ask the what the city was doing to measure and improve teacher quality. During her tenure as Education Chair, she visited over 400 schools and examined all elements of school operations from financial reports to operational processes. Ms. Moskowitz has examined schools, school networks, and educational service providers both good and bad to craft the SCN school model. She demands that everyone on her staff raise the bar for competence and continue to think of new, innovative, and more efficient ways of handling school operations and instruction so that SCN can bring about real educational equity and achievement for its students.

Keri Hoyt (Chief Operating Officer) Ms. Hoyt drives the organization's business operations, including conceptualizing strategy, implementing operating plans and budgets, and achieving targets through oversight and leadership of the Human Resources, External Affairs, Operations, Instructional Development, Technology and Data and Accountability departments as well as the school leaders.

Chuck Klein (Financial Controller) Mr. Klein creates financial policies and controls for SCN schools, creates the annual operating school budgets, ensures schools follow proper record keeping procedures in order to be prepared for annual audits, and oversees all financial transactions and operations undertaken by SCN schools. He also performs financial modeling for future schools and ensures that each school maintains fiscal discipline.

Paul Fucaloro (Director of Instruction) Mr. Fucaloro has an M.B.A. in Statistical Marketing Research and over 38 years of education experience working as a classroom teacher, math specialist, literacy coach, and teacher trainer with the New York City Department of Education. He is a trained statistician, an adjunct/associate professor at Long Island University, and an expert in SCN's literacy and math curricula. He has also worked for the Princeton Review preparing students to excel at high stakes standardized tests. Mr. Fucaloro has been with SCN since its founding as the Director of Instruction. He is responsible for ensuring that school principals are consistently working to improve their leadership skills and their schools. Mr. Fucaloro spends a significant portion of his time working directly with SCN principals coaching them on how to effectively observe and provide feedback to teachers. He also works directly with teachers at SCN schools to ensure they constantly and consistently provide the highest level of instruction possible. He regularly observes teachers in order to provide coaching, feedback, and support that will help teachers to constantly improve their pedagogical techniques. Mr. Fucaloro also is responsible for the development and refinement of the SCN curriculum. He regularly meets with outside curricula providers to examine and evaluate their products. He also evaluates the strengths and weaknesses of the SCN curriculum in order to determine how to best improve it. Mr. Fucaloro is also responsible for preparing students for success on high stakes tests. He works with the Data and Accountability Department and school leaders and teachers to develop and implement a plan to ensure student success on New York State mandated assessments.

Arin Lavinia (Director of Literacy) As Director of Literacy, Ms. Lavinia plays a critical role in the development and refinement of the SCN balanced literacy program, with a strong focus on reading comprehension. She incorporates a variety of methods including readers' and writers' workshop, textual analysis, guided reading, word work, and more. Ms. Lavinia is responsible for the development of a network-wide curriculum map for literacy across all grades served and she works with teachers and school leaders to create unit and lesson plans to ensure comprehensive implementation. She coordinates with leaders to develop SCN reading and writing benchmarks, has created a literacy assessment plan, and oversees the planning and provision of professional development in the areas of effective reading and writing instruction, reading skills and strategies, and other literacy-focused areas. Ms. Lavinia has extensive experience in her field. After earning a Masters in Education from Lesley University, Ms. Lavinia taught first grade in a New York City public school before moving to the private sector to consult with schools and teachers in literacy planning and implementation. SCN is proud to have Ms. Lavinia's expertise driving the literacy program.

Laura Kanter (Director of Instructional Development) As the Director of Instructional Development, Ms. Kanter provides the operational instructional support that school leaders and teachers require in order to successfully implement the SCN curriculum and school culture. She ensures that each school has the instructional supplies and equipment necessary so that school leaders and teachers can focus exclusively on student achievement without concerning themselves with the delivery of curricular supplies. She coordinates and oversees all curricular contracts and special education services and paperwork for all SCN schools. She also plans professional development activities for teachers and leaders at SCN schools. This begins with a three-week summer orientation and continues throughout the school year. She consults with school leaders and faculty to develop and refine a professional development plan that addresses specific needs of the faculty in order to improve teaching skills and raise student achievement. Throughout the school year, Ms. Kanter works with the Data and Accountability Department to examine student assessment data in order to increase instructional effectiveness. Ms. Kanter also coordinates and leads the specific aspects of new staff orientation that introduces new teachers and leaders to the SCN culture and values. Ms. Kanter has been with SCN since its founding, and has served in her current capacity since April 2007.

Haady Taslim (Director of Data and Accountability) The Director of Data and Accountability, Mr. Taslim joined SCN in March of 2007 and has served in his current role since July 2007, providing teachers and school leaders with real-time information on student performance to ensure dramatic gains in student achievement. After researching and selecting appropriate assessments, he arranges for the delivery of the assessments to each school and develops an assessment schedule. In addition to giving school leaders and teachers basic student results, he also conducts extensive analysis to look for significant differences between genders, races, and special education students. Working with teachers, school leaders, and the Instructional Development team, he uses assessment data to systematize best practices in teaching and to strategize new methods of instruction that will lead to stronger student performance and increased student achievement. He also designs database solutions to accommodate the data needs for a large pool of teachers and school leaders at multiple schools.

Jenny Sedlis (Director of External Affairs) Ms. Sedlis was one of the founding staff members of Success Charter Network in 2006. As the Director of External Affairs, she oversees all Board of Trustees interactions. Additionally, she oversees all government relations and compliance with Charter Schools Institute regulations and deadlines. Ms. Sedlis is also the primary point of contact for all SCN school boards, ensuring that each member has all the information necessary to closely monitor the school. She develops all of each SCN school's marketing and branding materials, and runs a student recruitment effort that in previous years has led to oversubscribed admissions lotteries. Ms. Sedlis manages all media relations. Ms. Sedlis manages development for SCN and its schools, overseeing relations with a dozen national foundations. Prior to joining Success Charter Network, Ms. Sedlis worked as Director of Community Affairs for City Council Member Eva Moskowitz.

Bryan Winther (Director of Information and Communications Technology) Seeking to integrate his IT background with the desire to help achieve social and educational equality, Mr. Winther joined the Success Charter Network in 2007. Mr. Winther works to develop new efficient solutions for data management and school operations. In addition, he provides end-user technical support for the staff of SCN schools. He is currently refining the technology plan for future SCN schools that will most effectively and efficiently allow collaboration and interaction among instructional faculty members at different schools.

Kristina Exline (Director of Operations and Student Affairs) As the Director of Operations and Student Affairs, Ms. Exline is responsible for most non-instructional operations at SCN schools. She trains and manages Business Managers and School Operations Managers who manage the day-to-day non-instructional operations of each school, allowing the principal to focus solely on teaching and learning. She also oversees the enrollment and lottery process for new student admissions. Ms. Exline also coordinates the successful start up of each new SCN school. This process includes arranging for facilities renovations, procuring necessary furniture, equipment, and supplies, and ensuring all operational policies and procedures are in place and fully explained to the staff. Her other responsibilities include logistical planning for large-scale events, overseeing the writing and amending of charter applications for SCN schools, and procuring appropriate insurance for SCN schools.

Donna Rossi (Director of Human Resources) As the Director of Human Resources, Ms. Rossi currently leads a team that identifies and recruits qualified teaching, leadership, and operations candidates and runs them through an extensive and rigorous interview process that includes review of resumes, phone interviews, reference checks, demo lessons, and post-lesson feedback sessions. For the 2009-2010 school year, her team pored over more than 17,000 resumes in an effort to staff SCN's four existing schools and three planned schools. She also ensures that all employees are fingerprinted according to relevant laws and that all teaching staff members have appropriate certifications. Additionally, she oversees benefits administration and ensures that each SCN school is in compliance with all appropriate tax and labor laws.

The specific services provided by the Success Charter Network will be:

A. Start-up: In an effort to allow school leaders to focus exclusively on teaching and learning from the very moment the charter is granted, SCN will manage the school's entire operational start-up process. It begins this process over a year and a half in advance of the anticipated opening date of the school by conducting extensive research to find appropriate space in existing New York City public schools for the location of the new charter school in its proposed community. The criteria for being identified as a possible site for a future SCN school include: having at least five years of declining enrollment, having a minimum of 300 empty student seats according to New York City Department of Education statistics, and being an academically failing school with fewer than fifty percent

of students meeting basic state standards as measured by New York State assessments. SCN will work closely with the Department of Education to identify suitable locations for new schools. Once a school site has been identified, SCN must begin extensive negotiations with and apply pressure on the New York City Department of Education to ensure final decisions are made and space is allocated to the new school in January rather than June in order to allow sufficient time for the renovation and preparation of the space. Once a final decision has been made and the new school has been assigned space in an existing school, SCN will begin negotiations with the leaders of the school or schools already occupying the space in order to develop a schedule to share the common spaces in the building including the cafeteria, gymnasium, auditorium, play yard, library, entrances, and stairwells. Based on these negotiations, SCN will, in consultation with the charter school leaders, create a daily schedule for the school. SCN will also oversee minor renovations which will likely include installing updating light fixtures and ceiling tiles, renovating bathrooms, cabling each room for wireless internet access, and repainting rooms and hallways. SCN will secure the procurement of desks, chairs, tables, interactive white boards, books and other classroom equipment and instructional supplies as well as the furniture, equipment, and office supplies needed in the main administrative office of the school. SCN also procures appropriate insurance for each SCN school.

B. Finance: Through careful research conducted at other successful charter schools, extensive financial modeling, and experience with the existing Success Academy Charter Schools, SCN has already developed a start-up budget and proposed operating budget for the first five years of the school's operation and drafted internal controls, protocols, and procedures. In consultation with the school principal and the Board of Trustees, SCN will refine this projected annual operating budget for the school each year. It will then produce monthly and quarterly variance reports and conduct meetings with the school's leadership and Board of Trustees to go over these reports and give recommendations to ensure the fiscal health of the school. At the end of each fiscal year, SCN will ensure that annual fiscal audits are conducted by an independent Certified Public Accountant; it will also ensure the school is prepared for the audit by following proper financial and record keeping procedures throughout the year. SCN will also set up operating bank accounts and credit card accounts and will manage the accounting, bookkeeping, payroll, accounts payable, and accounts receivable for the school. SCN will fill out the bi-monthly reports required by the New York City Department of Education in order to receive per pupil funding. SCN will also secure grants for the school by maintaining relationships with philanthropic foundations and individuals and by writing grant applications and budget proposals to the Walton Foundation, the Buck Foundation, the New York State Charter School Program, and the State Stimulus Fund. Additionally, SCN will manage grant compliance by submitting all post-award financial, statistical, and narrative documentation as required by the grant's terms. SCN conducts extensive research looking for new grant opportunities and will apply for additional grants for the school whenever an appropriate opportunity is found.

SCN will also manage title funding for the school by completing the consolidated title application each year and submitting all required paperwork to ensure continued funding.

C. Curriculum: SCN will provide and continuously improve a research-based, results-driven curriculum that will ensure high student achievement and excellent results on New York State mandated assessments. This curriculum as it currently exists can be found in Attachment 10(a-d). However, SCN believes in continuous improvement in all areas and is always working to improve its curriculum. This improvement comes from extensive research, in-depth demonstrations, classroom trials, and evaluations by teachers, school leaders, and SCN personnel. SCN is always searching for new and better curricula and teaching devices. It recently added a rigorous writing curriculum after research, meetings and demonstrations with teachers and instructional leaders, contract evaluations, and negotiations with the company. Similar research, trial, and evaluation have led SCN to add handwriting books, problem solving materials, and classroom morning meetings to its curriculum. SCN schools will share best practices and collaborate through inter-visitation in order to continuously improve instruction. SCN will also provide student assessments and arrange for their scoring and the return of data in a timely manner to allow for modifications to teaching and learning as described in Attachments 12 and 18.

D. Human Resources: SCN will recruit the most effective teachers, administrators, and other school personnel to work in the school. While the school principal will have final authority to hire and fire school staff, SCN will conduct extensive screening and interviewing so that it can recommend only the best candidates to the principal. The SCN hiring process consists of submission of a cover letter, resume, and application; phone interview; reference checks; scheduling of a demo lesson; post-lesson debriefing with the candidate; and finally a recommendation to the school principal if SCN determines the candidate will be an excellent fit. If the candidate is hired, SCN will then create an employment letter and conduct an orientation for the new employee. This orientation will include an explanation of the SCN-administered payroll and generous benefits package, which includes health insurance, dental insurance, vision insurance, a flexible spending account, a mass transit reimbursement account, life insurance, long-term disability, and a 403b retirement plan. SCN has been so successful in publicizing the schools and recruiting teachers, to fill about 175 positions network-wide in anticipation of the 2010-2011 school year, the team reviewed over 16,000 resumes. SCN has developed strategic relationships with Teach for America, New Leaders for New Schools, New York Teaching Fellows, and several colleges of education including Hunter College, Columbia University Teachers College, and the University of Pennsylvania School of Education. These organizations bring qualified applicants to the attention of the SCN Human Resources Department easing the process of finding extremely talented candidates for teaching and administrative positions at SCN schools.

E. School Leader Training: SCN will provide intensive training to future school leaders through its school leadership residency program in which talented future school leaders work at an SCN school for 1-2 years teaching and training under the principal and Director of Instruction so that they are ready to become principals at future SCN schools. This intensive training allows future leaders to provide excellent instruction at an SCN school while simultaneously learning from and being mentored by a highly effective and successful school leader. SCN currently has a number of leadership residents in this highly selective program. SCN will also continuously work with and evaluate school leaders to improve their leadership capacity. Specifically, the Director of Instruction spends approximately half of his time directly training school principals. He reads all feedback that is given via e-mail from principals to teachers in order to ensure and improve the quality of this feedback. He also coaches principals on how to effectively conduct teacher evaluations and feedback sessions; how to communicate and impart SCN's core values and culture to teachers, students, and parents; and how to implement key school initiatives. For example, if a principal decides that his or her school should undertake a student engagement initiative, the Director of Instruction gives the principal training, advice, and feedback on the planning and execution of the initiative.

F. Professional Development: SCN will provide professional development opportunities for teachers, administrators, and other school personnel. The professional development plan will be designed by SCN in consultation with the school leaders and faculty to address specific weaknesses and improve teaching and learning at the school. Professional development will begin with a three-week faculty orientation and training that takes place before the school year begins. This orientation will allow the faculty to become experts in the SCN curriculum, culture, and procedures. Throughout the school year, professional development will be scheduled every Wednesday afternoon and approximately eight additional days throughout the year. The professional development plan will be constantly examined and evaluated throughout the year to ensure that teachers and school leaders are receiving the most effective training that will have a direct, positive impact on student achievement. School operations staff at SCN schools also receive professional development. SCN constantly trains and advises each school operations team on how to most effectively and efficiently run the non-instructional operations of the school, which include school health and safety protocols, scheduling, facilities management, and administrative office protocols. A more detailed description of the instructional professional development plan can be found in Attachment 15.

G. Information Technology: When the school is undergoing its pre-opening renovations, SCN will arrange for the purchase and installation of a server that can host an e-mail system, database software, and a shared drive that will allow users to save documents directly to the server and access them remotely. The e-mail system set up by SCN will allow users to participate in discussions with their colleagues via an online bulletin board-style discussion conference, to share

contacts and calendars in order to facilitate communication and scheduling, and to create web pages for their classes. SCN will also arrange for the purchase and set up of laptop computers for each staff member, wireless Internet access throughout the school, a multi-line telephone system, and a high-volume copier/printer/scanner. SCN will also install its digital database system at the school. This system allows for the easy management of all student data including attendance, emergency contact information, health conditions, academic data, and records of all contact between the school and the family. The database also allows for timely analysis of student performance data and comparison of class statistics. SCN will also likely install a digital library program for the school that allows each teacher to easily maintain a classroom library by scanning books with his or her computer to create an inventory, lend books to students, and check them back in. This library system also tracks the number of books a student has read and their reading levels in order to ensure students are reading books that are appropriate for their reading ability. The SCN technology component will also allow interaction between SCN schools by giving teachers and leaders at different schools the opportunity to easily share instructional best practices and lesson plans and the ability to participate in discussions hosted on the SCN server. SCN schools also use an in-house system called Edutube that allows teachers, equipped with video cameras, to record their lessons and upload them to a network resource. This, in turn, allows other SCN teachers to learn best practices and things to avoid by observing their fellow faculty

H. School Evaluation: A core tenet of the SCN mission is continuous evaluation and improvement. SCN is constantly evaluating the performance of each SCN school and providing constructive criticism and guidance to improve teaching and learning. The Chief Executive Officer, Chief Operating Officer, Director of Instruction and Director of Literacy spend a significant amount of their time observing schools, meeting with school leaders and teachers, and examining relevant data in order to accurately evaluate each school and offer relevant feedback. SCN will continuously evaluate school academic data to determine how to improve instruction. Using the assessments described in Attachment 12, it will examine the school's progress towards achieving its student achievement goals (found in Attachment 17(a)). SCN constantly analyzes student assessment data from a multitude to different perspectives to locate any significant differences between gender, race, or special education status. SCN then reports any significant information to school leaders so that they can work with SCN to develop ways to address these shortcomings and eliminate any hint of achievement gaps before they have a chance to fully form. SCN also examines student performance data and high stakes tests in order to create and refine a test preparation strategy that will ensure success on required state assessments. SCN is always researching different assessments to find those that are the most reliable indicator of student achievement and the most reliable predictor of student performance on state-mandated assessments. SCN will also examine fiscal data to evaluate fiscal solubility and potential improvements in school operations.

I. External Affairs: SCN manages all external affairs and relations for SCN schools. SCN will provide CSI with any information necessary for oversight and evaluation of all schools. It will facilitate Institute visits, and will ensure the timely completion of the initial charter school accountability plan, the annual accountability plan progress reports, and the accountability plan for renewal. SCN will ensure that the Board is able to review all school data that will allow them to make informed decisions about the school. SCN will negotiate with the Department of Education and ensure that the start-up team can enter school sites in the time necessary to renovate and open the school. SCN will market the school during the recruitment process described in Attachment 24. SCN is committed to the widest possible accessibility, passing out several thousand brochures at apartment buildings near the school; holding information sessions at local churches, preschools, after school programs, and recreation centers and even goes door-to-door so all parents have a fair and equal chance to put in applications. In previous years, this campaign has led to the admissions process being oversubscribed by approximately 600%. The External Affairs Department of SCN will also handle all press relations for the schools.

J. Enrollment: SCN has designed a digital lottery process that will allow it to hold a digital admissions lottery for multiple schools simultaneously. This system will randomly assign applicants to available seats at each school and place remaining students on waiting lists once all seats have been filled. SCN will then send letters to each applicant informing them of the results of the admissions lottery and beginning the summer enrollment process. This process introduces incoming students and their families to the SCN curriculum, culture, and values. SCN also uses the summer enrollment process to collect required forms including birth certificate, proof of residency, health forms, immunization record, home language questionnaire, ethnic identity form, and field study permission slip. SCN will also facilitate each family's application for a public library card, arrange for students to be fitted for the school uniform, and make sure they receive financial assistance for the school uniform if needed. Throughout the summer, SCN will keep in contact with accepted families so that if any decide to decline their seat, a student from the waiting list can be given the spot. SCN also obtains any existing IEPs for new students with special education requirements and ensures that all of a student's needs will be met by the school. SCN attends meetings as required by the student's CSE throughout the year to ensure he or she is being serviced appropriately by the school. At the end of the enrollment process, SCN will ensure incoming students are registered as attending with the New York City Department of Education, entered in the school's student database, and receiving free public transportation passes and school meals if eligible.

The current rate SCN charges for providing these numerous and extensive services is approximately $1349 for the 2009-2010 year (only 9.9975% of the estimated New York City Department of Education per pupil funding) per enrolled student. This amount will increase or decrease proportionally to any increase or decrease the New York City Department of Education makes in its per pupil funding payments to the school.

This rate of less than 10% of the school's per pupil funding from the New York City Department of Education is a fiscal windfall for the school, as it would cost much more for the school to hire the additional employees necessary to successfully perform the many functions that will be carried out on behalf of the school by SCN.

The management contract shall be executed upon the granting of this charter and shall be in effect for the duration of the charter unless terminated by either party per the terms of the contract. The contract will automatically renew at the end of the term, provided the charter is renewed, and provided further that the school board does not vote to terminate the renewal.

In the event either party terminates the contract during the initial term, the school board of trustees will apply to revise the Charter to change the name of the school.

All school assets will be fully owned and governed by the Board of Trustees of the school.

Applications have been submitted to the Internal Revenue Service requesting tax-exempt status of each of the existing Success Academy Charter Schools; no application has been denied as of the date of this application.

Academic and Business Services Agreement

By and Between

The Success Charter Network, Inc.

and

Harlem Success Academy Charter School 5

This academic and business services agreement (the ñAgreementò) is made and entered into as of _____ (the ñEffective Dateò) by and between The Success Charter Network, Inc., a Delaware not for profit corporation (ñthe Networkò) and Harlem Success Academy Charter School 5, a New York education corporation (the ñSchool,ò and the School together with the Network, each a ñPartyò and collectively the ñPartiesò).

Whereas, the Network is a charter management organization with the qualifications, experience, and expertise necessary to effectively manage charter schools;

Whereas, the Authorizer (as defined below) granted the School authority to operate a charter school;

Whereas, the School is entering in to this Agreement with the Network in order to meet its obligations under the Charter Contract (defined below), especially its commitment to providing a high-quality education for its students;

Whereas, it is the Partiesô intention to create a relationship based on trust, common educational objectives, and clear accountability, through which they will work together to bring educational excellence to the School;

Whereas, the Parties desire to enter into a written agreement to set forth the terms and conditions of their agreement;

Now, therefore, in consideration of the recitals and the mutual covenants, representations, warranties, conditions, and agreements hereinafter expressed, the Parties agree as follows:

1. DEFINITIONS

"Agreement" has the meaning set forth in the recitals.

"Authorizer" means the State Education Department.

"Board of Trustees" means the Board of Trustees of the School.

"Charter Contract" means the Schoolôs contract with the Authorizer, which authorizes the Board of Trustees to organize and operate the School, and which includes the final charter application.

"Charter School Law" means the laws permitting the creation of charter schools in the State of New York and governing the development and operation of charter schools in the State of New York, including the *New York Charter Schools Act of 1998*, as amended.

"Effective Date" has the meaning set forth in the recitals.

"Facility" means a building or other structure of sufficient size to house the actual and anticipated enrollment level of the School, suitable for use by the School, and meeting all applicable building codes, zoning ordinances and laws, environment laws and regulations, the Charter Contract, and all other laws and regulations applicable to the operation of the School.

The "Marks" refer to the ñHarlem Success Academy 5ò and ñSuccess Academyò trademarks.

The "Network" has the meaning set forth in the recitals.

The "Network School Model" means the school model based on the Network curriculum, described in the Charter Contract.

"Party" and "Parties" have the meaning set forth in the recitals.

"Principal" means the employee of the School responsible for the day-to-day academic program of the School.

ñ**Proprietary Information"** means all copyright and other proprietary rights to all instructional materials, training materials, curriculum and lesson plans, and any other materials developed in whole or in party by the Network, its employees, agents, or subcontractors.

"Regulatory Authority" means any United States federal, State, or local government, or political subdivision thereof, any authority, agency, or commission entitled to exercise any administrative, executive, judicial, legislative, regulatory, or taxing authority or power, any court or tribunal (or any department, bureau, or division thereof), any arbitrator or arbitral body, or any similar body.

"Reimbursement Payment" means reimbursement payments for certain expenses incurred by the Network on behalf of the School.

"School" has the meaning set forth in the recitals.

"State" means New York State.

2. REPRESENTATIONS AND WARRANTIES

2.1 Representations and Warranties of the Network

The Network represents and warrants as follows:

(a) Organization and Status. The Network is a non-stock, not for profit corporation duly organized under the laws of the state of Delaware, with the purpose and legal ability to contract to provide educational management services. The Network shall notify the School of any change in its corporate status. The Network shall not change its corporate status such that this Agreement is materially affected.

(b) Authority. The Network is authorized to do business in the State. The Network has all requisite power and authority to execute and deliver this Agreement, to perform its obligations hereunder, and to otherwise consummate the transactions contemplated hereby. This Agreement constitutes a valid and binding obligation of the Network, enforceable against the Network in accordance with its terms.

(c) Full Disclosure. No representation or warranty of the Network herein and no statement, information, or certificate furnished or to be furnished by the Network pursuant hereto or in connection with the transactions contemplated hereby contains any untrue statement of a material fact or omits or will omit to state a material fact necessary in order to make the statements contained herein or therein not misleading.

(d) Litigation. There is no suit, claim, action, or proceeding now pending or, to the knowledge of the Network, threatened before any Regulatory Authority to which the Network is a Party or which may result in any judgment, order, decree, liability, award, or other determination which will or may reasonably be expected to have a material adverse effect upon the Network. No such judgment, order, decree, or award has been entered against the Network which has, or may reasonably be expected to have, such effect. There is no claim, action, or proceeding now pending or, to the knowledge of the Network, threatened before any Regulatory Authority involving the Network which will or may reasonably be expected to prevent or hamper the performance of the agreements of the Network contemplated by this agreement.

(e) Ability. The Network, its personnel and subcontractors, being employed and/or used, or to be employed and/or used, by the Network, for the performance of its obligations hereunder are qualified, experienced, and

have expertise to carry out the management services provided for herein with all necessary professional skill, care, and diligence.

(f) Ownership of Marks, Proprietary Information, and the Network School Model. The Network is the owner of and has the right to use and license to the School, or permit the School to use, as provided herein, the Marks, Proprietary Information and the Network School Model, and such ownership, use, or license does not infringe upon the rights of any third party.

(g) Conduct of the Network. The Network has complied, and at all times during the Term will materially comply, collectively, with all local, State, and federal laws and regulations that are applicable to the Network, which include, but are not limited to the Internal Revenue code, the non-profit corporation law of Delaware and the Charter Schools Law. The Network has maintained and will maintain adequate records of the activities and decisions of the Network to ensure and document compliance with all such laws and regulations.

2.2 Representations and Warranties of the School

The School represents and warrants as follows:

(a) Organization and Tax Exempt Status. The School is, and at all times during the Term will be, an education corporation duly organized under the laws of the New York, with the purpose and legal ability to contract to operate a charter school and to contract for education management services. The School is recognized by the Internal Revenue Service as a tax exempt organization.

(b) Authority. The School has all requisite power and authority to execute and deliver this Agreement, to perform its obligations hereunder, and to otherwise consummate the agreements contemplated hereby and thereby. This Agreement constitutes a valid and binding obligation of the School, enforceable against the School in accordance with its respective terms.

(c) Litigation. There is no suit, claim, action, or proceeding now pending or, to the knowledge of the School, threatened before any Regulatory Authority to which the School is a Party or which may result in any judgment, order, decree, liability, award, or other determination which will or may reasonably be expected to have a material adverse effect upon the School. No such judgment, order, decree, or award has been entered against the School which has, or may reasonably be expected to have, such effect. There is no claim, action, or proceeding now pending or, to the knowledge of the School, threatened before any Regulatory Authority involving the School which will or may reasonably be expected to prevent

or hamper the consummation of the agreements contemplated by this Agreement.

(d) Full Disclosure. No representation or warranty of the School herein and no statement, information, or certificate furnished or to be furnished by the School pursuant hereto or in connection with the agreement contemplated hereby contains any untrue statement of a material fact or omits or will omit to state a material fact necessary in order to make the statements contained herein or therein not misleading.

(e) Conduct of the School and the Board of Trustees. The School has materially complied, and at all times during the Term will materially comply, collectively, with all local, State, and federal laws and regulations that are applicable to the School, which include, but are not limited to the Internal Revenue Code, the non-for-profit corporation law of New York, the open records and meetings laws of New York, and the Charter Schools Law. Any lack of compliance shall not be attributable to the Network. The School has maintained and will maintain adequate records of the activities and decisions of the School to ensure and document compliance with all such laws and regulations. The School agrees to provide the Network with copies of all such records, and to allow the Network to, at the Networkôs discretion, assist with the preparation and retention of such records.

(f) Due Authorization. The Board of Trustees is authorized to organize and operate the School and the School is vested by the Authorizer with all powers necessary to carry out the educational program outlined in the Charter Contract. Except as so delegated to the Network herein (unless such delegation is prohibited by applicable law), the School shall at all times retain all rights and responsibilities under the Charter Contract.

3. AUTHORITY

3.1 Delegation of Authority to the Network

The School hereby authorizes the Network to undertake the functions specified in this Agreement in regards to business and academic services of the School on behalf of the School, it being understood that, at all times, the Network remains accountable and subject to the oversight of the School. The School also authorizes the Network to take such reasonable other actions that may not be expressly set forth in this Agreement, but which are implicit in this Agreement and are necessary in the Networkôs good faith and reasonable judgment to properly and efficiently manage or operate the School, provided such actions are consistent with the Charter Contract, applicable laws, and the annual School budget approved by the Board of Trustees.

3.2 The Network's Authority to Subcontract

Except to the extent prohibited by law of this Agreement, the Network may subcontract any function or service it is obligated to provide hereunder, provided that no such subcontract permitted hereunder shall relieve or discharge the Network from any obligation or liability under this Agreement.

3.3 Authorizer Authority

Nothing in this Agreement shall be construed in any way to limit the authority of the State Education Department, including, but not limited to, the authority to take and enforce action pursuant to Section 2855 of the *New York Charter Schools Act of 1998*, as amended.

3.4 Conflict with Charter

To the extent there are any conflicts between the terms of the Charter Contract and the terms of this Agreement, the terms of the Charter Contract shall control.

4. DUTIES AND OBLIGATIONS OF THE NETWORK

In order to assist the School in carrying out the terms of the Charter Contract, the Network agrees to provide the educational management and operational services set forth under this Section, and in connection therewith, shall have the right to direct the following duties, in consultation and communication with the Board of Trustees and/or the School administration on key matters:

4.1 Education and Instruction-Related Services

The Network shall provide the following education and instruction-related services to and on behalf of the Charter School, all of which shall be researched-based and rooted in sound educational philosophy:

(a) Designing the educational programs and programs of instruction including rules and requirements relating to student admissions, student records, access to equal educational opportunities, school year and school day requirements, special education, student testing, extracurricular and co-curricular activities and programs;

(b) Selecting and acquiring instructional and curricular materials, equipment and supplies, which may be acquired from affiliated or unaffiliated entities; provided, however, that if such materials, equipment, and supplies are acquired from persons or entities affiliated with the Network, the prices paid for such items shall be reasonable and fair to the School in

light of the nature of the items purchased and in all cases such materials, equipment and supplies shall be and remain property of the School, subject to any superceding liens or encumbrances; and

(c) Designing, implementing, and monitoring professional development activities for the School's instructional personnel.

4.2 Management and Operation Services

The Network shall provide the following management and operation services to and on behalf of the School:

(a) Generally managing the business administration of the School, including the preparation and maintenance of operating procedures of the School;

(b) Managing personnel and payroll functions of the School for employees of the School, as more specifically described in Section 4.3 below;

(c) Arranging for the contracting of services required by the School, which shall include but not necessarily be limited to, transportation, technology, auditing, custodial and food services, and which services shall be paid for in accordance with the appropriate line items in the School's budget;

(d) Evaluating and identifying the School's facilities including making any improvements thereto as the Network shall deem necessary or appropriate for the attainment of the School's educational objectives;

(e) Managing the purchasing or leasing of materials, supplies, and equipment for use at the School, provided that the items shall be and remain the property of the School; provided further that in the event the School intends to enter into a lease agreement with the Network, then such an agreement shall be separately documented and not be made a part of or incorporated into this Agreement and such lease agreement shall be separately negotiated by independent counsel representing the School;

(f) Arranging for the contracting on behalf of the School for the provision of any other services or the acquisition of any other property, which the Network reasonably deems necessary to the attainment of the educational goals of the School;

(g) Designing and implementing the School's student recruitment and enrollment procedures; and

(h) Periodically providing students, parents, faculty members and other School stakeholders with written School information or materials,

provided that in all cases such communication must be prior-approved by the Board of Trustees or Principal, as applicable.

4.3 Human Resources and Employment-Related Services

The Network shall assist with the selection, training, and management of the educational and administrative staff of the School, including, determining, with the Principal, staff needs; recommending the hiring and firing of staff, as may be required from time to time (after approval from the Board of Trustees in the case of the Principal and with the Principal in the case of all other staff personnel); assisting the Board of Trustees in the case of the Principal and assisting the Principal in the case of all other staff personnel in setting compensation levels (subject to the requirements of applicable laws or regulations); directing the development and training of staff (in cooperation and consultation with the School administration); establishing procedures for hiring substitute staff so that the School is adequately staffed at all times; establishing personnel policies upon Board of Trustees approval; and establishing employment related administrative procedures, if any. The parties acknowledge and agree that, the principal, teachers, administrative and other staff of the School shall be employees of the School and not of the Network. The Network will also arrange for the administration of employee benefits for employees of the School.

4.4 Budgeting and Financial Reporting Services

Prior to the beginning of each fiscal year, the Network shall prepare with the Principal and submit to the Board of Trustees for its review a proposed annual budget for such fiscal year. The final annual budget, to the extent that the Network in its reasonable discretion considers it financially prudent and in the educational interests of the School students to do so, shall incorporate any amendments and revisions proposed by the Board of Trustees, provided that said amendments and revisions do not prevent the School from fully compensating the Network for the educational management and operations services performed under this Agreement. The Network shall discuss with the Board of Trustees or its designee any amendments or revisions proposed by the Board of Trustees that the Network does not reasonably consider prudent to incorporate. The Network and the Board of Trustees or its designee shall come to agreement on the resolution of any such proposed amendments or revisions prior to offering a final budget to the Board of Trustees for its approval.

The Network shall also provide other budgets, financial reports, and financial statements to the Board of Trustees as may be required by the Charter Contract or applicable law and regulations, including:

(a) Within 45 days after the close of each fiscal quarter, unaudited financial statements of the School for the fiscal quarter most recently ended;

(b) From time to time upon the request of the Board of Trustees, but no less frequent than on a quarterly basis, a financial statement that provides a detail of budget to actual revenues and expenditures, with an explanation of variances;

The Network shall also cooperate with the auditors retained by the Board of Trustees to prepare annual audited financial statements of the School. The Network shall coordinate its work and the work of the auditors so as to allow for the delivery of such audited statements within 120 days after the close of each fiscal year.

4.5 Procurement of Insurance

The Network shall procure and maintain for itself and separately, on behalf of the School, insurance policies covering commercial liability, worker's compensation, directors and officers liability coverage, and any other insurance required by applicable law or by any agreement to which the Network or the School is a party.

4.6 Funding of Operating Deficits

In the event that the cash receipts of the School are insufficient to fund all of the cash expenditures required to be made by or on behalf of the School for any fiscal year, the Network may advance funds to the School (any such advance being referred to herein as an "Operating Deficit Contribution"). Such Operating Deficit Contribution, if any, shall accumulate no interest.

4.7 Charter School Performance Standard

Provided that the Board of Trustees and the School administration support the recommendations made by the Network with respect to material educational, operational, financial, and employment-related matters affecting the School (and the implementation, management, and assessment of same), the Network warrants that the School shall attain, during or prior to the last year of the term of its First Charter, the academic performance standards committed to in its First Charter or, alternatively, its students shall attain a level of academic performance, as measured by the outcome of standardized, local, national, or state-wide testing, which exceeds the average performance of students of comparable socioeconomic background in the School's district.

5. OBLIGATIONS OF THE CHARTER SCHOOL

The School, acting through its Board, shall be obligated to perform the following duties or services:

5.1 Approval of School Policies

The School shall cooperate with the Network in the preparation of broad policies of the School, which shall be consistent with the Charter Contract.

5.2 Maintenance of Charter Contract

The School shall do, or cause to be done, all things necessary to ensure that all legal requirements, and all such conditions as may have been imposed by the authority granting the Charter Contract, are fully complied with at all times. If the School shall at any time receive notice from any public authority or other person that the School is or may be in violation of the Charter Contract, the Act, or any provision of any applicable law or regulation, the School shall immediately notify the Network of the asserted violation and shall thereafter work diligently with the Network to determine whether such asserted violation in fact exists, to correct any violation found to exist, and to vigorously contest the asserted violation if the same is found not to exist.

5.3 Payment of the Network Fee

As compensation to the Network for the services rendered to the School pursuant to this Agreement, the School shall pay to the Network an amount each year equal to the product of (x) the total full-time equivalent enrollment of students in the School as defined under Section 119.1 of the New York State Commissioner of Education Regulations multiplied by (y) one thousand two hundred forty-two dollars and eighty-eight cents ($1242.88) (the "Per Pupil Fee"), provided that the Per Pupil Fee shall be increased or decreased each year by the percentage increase or decrease in the Final Adjusted Expense Per Pupil for charter schools in the New York City school district as calculated by the New York State Education Department annually, commencing with and including the 2008-2009 school year (the product of (x) multiplied by the Per Pupil Fee, the "the Network Fee"), such that the Per Pupil Fee shall equal 9.9975% of the New York Cityôs Final Adjusted Expense Per Pupil. The Network Fee shall be payable to the Network bi-monthly on or before the first business day of July, September, November, January, March, and May, with appropriate adjustments made on a bi-monthly basis to reflect actual student enrollment changes. Solely for purposes of determining the bimonthly payments to the Network prior to the fall opening of the School in any fiscal year, the total student enrollment projected in the final Board approved budget for the fiscal year will be utilized. Any Network Fee, or portion thereof, not paid within thirty (30) days of its due date shall bear interest at an annualized rate of 7.5% per annum on the outstanding past due amount, provided that such past due payments are not as a result of the New York City Department of Education's failure to timely remit the Adjusted Expense Per Pupil to the Charter School.

In the event of any material change in the level or scope of the Network's services required under this Agreement due to a change in the School's key design

elements, curriculum, programs, operation, or any other reason, the parties will negotiate in good faith an appropriate adjustment in the Network Fee to reflect the additional services to be provided by the Network, except that no material change affecting the Network Fee shall be made to the key design elements without the mutual consent of the Board and the Network.

It is understood by both parties that all expenses incurred by the Network and its employees in the performance of this Agreement shall be included in the Network Fee and shall not be reimbursable to the Network from the Charter School except as provided for in section 5.4 below; provided, however, that in the event that the Network and the Charter School enter into a separate agreement or agreements whereby the Charter School commits to reimbursing the Network for certain expenses, this section shall not apply to such reimbursable expenses.

5.4 Reimbursement of Expenses

The following expenses incurred by the Network shall be subject to reimbursement by the School:

(a) All books, curriculum, furniture, technology, supplies or other property that is delivered to the School;

(b) All software for computers located at the School;

(c) All insurance purchased for the benefit of the School;

(d) All advertising purchased for the benefit of the School;

The Reimbursement Payment shall be due on the same days the Network Fee is due and shall be subject to the same provisions with respect to late payment. The Network shall advise the School of the amount of the Reimbursement Payment ten (10) days prior to the date on which it is due.

6. TAX STATUS

Both the Network and the School shall take all reasonable steps to maintain status as a tax-exempt organization under federal and state law such that contributions to the School are deductible to the donor for federal income tax purposes. In the event of arbitration pursuant to Section 8 of this Agreement, the School and the Network shall agree that, notwithstanding any claims for relief each may seek from the other, it will require that any relief granted be consistent with maintaining the School's tax-exempt status. If the Board of Trustees and the Network conclude it is appropriate to do so, the School may seek to establish a separate tax-exempt organization to conduct fund raising activities and receive tax-deductible contributions in support of the School and/or of education generally.

7. EFFECTIVE DATE AND DURATION

7.1 This Agreement shall take effect upon (a) the agreement of both parties, and (b) the approval by the applicable Authorizer of the Charter (or its approval by operation of law) pursuant to subdivision 2852(5-a) or (5-b) of the Act.

7.2 Provided that the School satisfies the academic performance results set forth in the First Charter by the close of the term of this Agreement, which shall be June 30, this Agreement may automatically renew for four (4) successive one (1) year renewal periods, except that the Board of Trustees, by majority vote, may terminate renewal of this Agreement. The parties hereto agree to commence negotiations regarding renewal of this Agreement no later than 90 (ninety) days before the expiration of this Agreement (the end of the fifth year of the agreement).

7.3 In the event this Agreement is not renewed for any reason, then the School shall pay to the Network any and all deferred or otherwise owed Network Fees, Operating Deficits Contributions, or any other compensation accrued under or in connection with this Agreement. Such fees shall be paid ratably to the Network on a monthly basis within a 48 month period, but in no event shall monthly payments to the Network be less than seventy-five percent (75%) of monthly payments then currently paid by the School to any other education management company, staff trainer, consultant, curriculum developer, or provider of central services.

7.4 If it is determined that the School shall close, the Board of Trustees shall delegate to the Principal the responsibility to manage the dissolution process under the advisement of the Treasurer of the Board of Trustees. This process shall include notification to parents of children currently enrolled in the School.

The School will work closely with appropriate representatives of the district of location, the New York City Department of Education (NYC DOE), to develop and implement a dissolution plan that will govern the process of transferring students and student records. Initially, a list of students attending the School will be sent to the NYC DOE. The School will coordinate any planned or voluntary dissolution with the district to facilitate reintegration of its students and their records, and will provide the district with a minimum notice of 120 days for any voluntary dissolution.

Prior to dissolution, the School will conduct a series of meetings for parents to provide information about the dissolution and to support them in making decisions regarding selection of educational programs for their children. School representatives will also meet one-on-one with each enrolled student's family to ensure that all parents are aware of their options regarding educational services

for their child in New York City public schools, charter schools, and nonpublic schools.

The dissolution plan will provide that all property which the School has leased, borrowed, or contracted for use will be returned. The return of such property will conform with contractual prearrangement, where applicable, or will be done with reasonable promptness. All remaining assets of the School shall be transferred to another charter school within the New York City School District.

The School will establish an escrow account of no less than $75,000 to pay for legal and audit expenses that would be associated with dissolution should it occur. The account will be created over the School's first three years of instruction in increments of $25,000 each year.

8. TERMINATION

8.1 This Agreement may be terminated for any reason by the School with 60 days notice and by the Network with 180 days notice.

8.2 This Agreement may also be terminated under the following conditions:

(a) If the Network shall under such laws as shall be applicable to it commence any case or proceeding, or file any petition in bankruptcy, or for reorganization, liquidation or dissolution, or be adjudicated, insolvent or bankrupt, or shall apply to any tribunal for a receiver, intervenor, conservator or trustee for itself or for any substantial part of its property; or if there shall be commenced against it any such action and the same shall remain undismissed; or if by any act it shall indicate its consent to, approval of, or acquiescence in any such proceeding, or the appointment of any receiver, intervenor, conservator or trustee for it or any substantial part of its property or shall suffer any of the same to continue undischarged; or if it shall become subject to any intervention whatsoever that shall deprive it of the management of the aggregate of its property or any substantial part thereof; or if it shall wind up or liquidate its affairs or there shall be issued a warrant of attachment, execution, or similar process against any substantial part of its property, and such warrant, execution or process shall remain undismissed, unbounded or undischarged for a period of ninety (90) days, this Agreement shall be deemed immediately terminated upon the occurrence of such event.

(b) If the Network is found by an administrative or judicial body to have made fraudulent use of funds, or if an administrative or judicial body has permanently revoked any license which may be required for the Network to carry on its business and perform its obligations and functions under

this Agreement, this Agreement shall be deemed immediately terminated upon the occurrence of such event.

(c) If there shall occur or shall become known to either party an intentional material breach of the other's obligations, representation, or warranties under this Agreement, including, without limitation, the improper delay or non-payment of the Network Fee, such party may terminate this Agreement upon ninety (90) days written notice to the other provided that the other party may prevent termination by curing such breach within ninety (90) days of receipt of such written notice.

(d) If there shall become known to the Board of Trustees at any time after the effective day of this Agreement an intentional material breach of the Network's obligations under this Agreement which, in the Board of Trusteesô reasonable judgment, jeopardizes the safety, health, or well-being of the students at the School, the Board of Trustees shall have the right to terminate this Agreement immediately.

(e) The Network shall have the right to terminate this Agreement, on thirty (30) days prior written notice to the Board of Trustees, in the event that performance of its obligations hereunder is made impossible or impracticable by circumstances beyond the Networkôs control.

(f) The Network and/or the School may terminate said agreement for cause at any time by unanimous vote of either of the entitiesô boards. Such termination is subject to the stipulations of item 9.2 and following.

8.2 Upon expiration or termination of this Agreement for any reason, the Parties agree to cooperate in good faith and use their best efforts to complete a prompt and orderly separation, it being the intention of both parties that the School shall remain open and operating in its normal course in the event of such expiration or termination of this Agreement, in accordance with the following rights and obligations of the Parties:

(a) The School shall have the right to use the Network Proprietary Information, as defined under Section 9 hereof, then currently in use by the School, until the last day of the then current school year. The School may continue to use the Network Proprietary Information indefinitely thereafter for a reasonable annual fee that shall be agreed by the Parties or, failing that, determined by an arbitrator pursuant to the arbitration provisions herein, which fee shall not exceed 20% of the Network Fee that would otherwise be payable were this Agreement still in place;

(b) The Network shall provide the School with all student records, financial reports, employee records, and other School data in the Networkôs possession and not currently in possession by the Board of Trustees; and

(c) The Network shall provide the School with reasonable educational and operational transition assistance for a period of sixty (60) days after the termination of this Agreement, provided that the School shall pay to the Network all fees, expenses and other costs of the Network consultants and agents who may, from time to time, upon mutual agreement of the parties, provide assistance to the School or its students.

8.3 In the event that this Agreement is terminated or not renewed at a time when the Network has loaned funds to the School, guaranteed any debt or other financial obligation of the School, or provided credit support, whether in the form of a letter of credit or otherwise, to the School, notwithstanding any other provision of this Agreement to the contrary, such termination shall be effective and the School shall remain liable to the Network until the first date on which such loan has been repaid in full, such guarantee has been released by the beneficiary thereof, or such letter of credit or other credit support has been released and/or returned to the Network, all in accordance with the term therein.

8.4 In the event of termination, neither Party shall have any further obligations to the other hereunder except those which cannot be disclaimed by law, liability for amounts accrued and unpaid hereunder, and obligations expressly stated to be effective after the termination hereof.

8.5 In the event to Termination, the Network may require the School to take such steps as shall be necessary to make clear to the public that the School is no longer associated with the Network and those schools associated with the Network.

9. PROPRETARY INFORMATION

9.1 The School agrees that the Network and its affiliates shall own all trademark, copyright, and other proprietary rights (collectively the "Intellectual Property Rights"), whether developed before or after the date of this Agreement, in and to all instructional materials, training materials, curriculum and lesson plans, instructional and management methods, and any other materials and methods developed or provided in whole or in part by the Network, its employees, agents or subcontractors, and any person working under the Network's direction (collectively the "the Network Proprietary Information"). During the term of this Agreement and after its termination, the School shall maintain all the Network Proprietary Information and written and oral ideas, information or designs disclosed to the School, in confidence, and shall not disclose, publish, copy, transmit, modify, alter, or use in any fashion the Network Proprietary Information other than to the extent necessary for implementation of this Agreement. During the term of this Agreement and after its termination, the School shall take reasonable measures to assure that no School employees or agents disclose,

publish, copy, transmit, modify, alter, or use such confidential information or the Network Proprietary Information other than in accordance with this Agreement.

9.2 The School agrees that the Network shall own all intellectual property rights in all material that is developed by the parties together or by any employee or consultant of the School pursuant to this Agreement. The School agrees that it will take reasonable measures to ensure that all contributions of its employees or consultants to such materials will constitute a "work made for hire" within the meaning of the Copyright Act of 1976, 17 U.S.C. 101. In the event that such works may not constitute a "work made for hire," the School agrees to cause the applicable employee or consultant to execute an assignment of his or her rights in such contribution to the Network.

10. INDEMNIFICATION

10.1 Liability

The Network shall not be liable for any act or omission resulting in loss or damage to the School or the Board of Trustees, or any of their respective affiliates, except to the extent that such loss or damage is caused by the gross negligence or willful misconduct of the Network. The Network makes no representation or warranty of successful management or operation of the School by the Network. The liability of the Network, if any, under this Agreement shall under no circumstances extend to indirect or consequential damages. Under no circumstances shall the Network have any liability under this Agreement for any action taken by it at the direction of, or specifically approved by, the Board, except to the extent that the Network shall have been grossly negligent or engaged in willful misconduct in the carrying out of such instructions.

10.2 Indemnification by Charter School

The School shall indemnify and hold harmless the Network and its affiliates, and their directors, officers, employees, subcontractors, agents or representatives (the "Network Indemnitees") from, against, and with respect to any and all claims, demands, suits, liabilities losses, damages, costs and expenses (including interest, penalties, and attorney's fees and disbursements) (collectively, "the Network Claims") arising out of or as a result of any action taken or not taken by the Network or any of the Network Indemnities pursuant to this Agreement; in connection with any material noncompliance by the Network with any agreements, covenants, warranties, or undertakings of the Network contained in or made pursuant to this Agreement or otherwise; and relating to any material breach of the representations and warranties of the Network contained in or made pursuant to this Agreement, other than the Network Claims arising out of or as a result of the gross negligence, recklessness or willful misconduct of the Network. In addition, the School shall reimburse the Network for any and all legal expenses

and costs associated with the defense of any the Network Claim other than the Network Claims arising out of the gross negligence, recklessness, or willful misconduct of the Network.

10.3 Indemnification by the Network

The Network shall indemnify and hold harmless the School and its affiliates, and their directors, officers, employees, subcontractors, agents or representatives (the "Charter School Indemnitees") from, against, and with respect to any and all claims, demands, suits, liabilities, losses, damages, costs, and expenses (including interest, penalties, and attorney's fees and disbursements) (collectively, "Charter School Claims") arising out of or as a result of any action taken or not taken by the School or any of the Charter School Indemnitees pursuant to this Agreement; in connection with any material noncompliance by the School with any agreements, covenants, warranties, or undertakings of the School contained in or made pursuant to this Agreement or otherwise; and relating to any material breach of the representations and warranties of the School contained in or made pursuant to this Agreement, other than Charter School Claims arising out of or as a result of the gross negligence, recklessness, or willful misconduct of the Charter School. In addition, the Network shall reimburse the School for any and all legal expenses and costs associated with the defense of any Charter School Claim other than Charter School Claims arising out of the gross negligence, recklessness, or willful misconduct of the Charter School.

11. ARBITRATION

11.1 General

Any controversy or claim arising out of or relating to this Agreement or the breach hereof shall be finally settled by arbitration. The arbitration shall be held in New York, New York and shall be conducted in accordance with the Rules of the American Arbitration Association ("AAA") in effect at the time of the arbitration.

12. MISCELANEOUS PROVISIONS

12.1 Notices

All communications and notices relating to this Agreement are to be delivered in writing, with confirmation of delivery, to the following address or to such other address as either party may designate from time to time.

If to the Charter School, to:

Gideon Stein, Chairman
c/o Argyle Holdings, LLC

[redacted]
New York, NY 10007

With a copy to:

Stacey Apatov, Principal
Harlem Success Academy Charter School 5
301 West 140th Street
New York, NY 10030

If to the Network, to:

Eva Moskowitz, CEO
Success Charter Network
34 West 118th Street, 2nd Floor
New York, NY 10026

12.2 Governing Law

The rights and remedies of either Party under this Agreement shall be cumulative and in addition to any other rights given to either Party by law and the exercise of any right or remedy shall not impair either Party's right to any other remedy. This Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of New York (other than the provisions thereof relating to conflicts of law).

12.3 Enforceability and Validity of Certain Provisions

If any provisions of this Agreement shall be held, or deemed to be, or shall, in fact, be inoperative or unenforceable as applied in any particular situation, such circumstances shall not have the effect of rendering any other provisions herein contained invalid, inoperative, or unenforceable to any extent whatsoever. The invalidity of any one or more phrases, sentences, clauses, or paragraphs herein contained shall not affect the remaining portions of this Agreement or any part hereof.

12.4 Entire Agreement

This Agreement shall not be changed, modified, or amended nor shall a waiver of its terms or conditions be deemed effective except by a writing signed by the parties hereto. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supercedes all prior agreements or understandings, written or oral, in respect thereof.

12.5 Waiver

The failure by either party hereto to insist upon or to enforce its rights shall not constitute a waiver thereof, and nothing shall constitute a waiver of such party's right to insist upon strict compliance with the provisions hereof. No delay in exercising any right, power, or remedy created hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power, or remedy by any such party preclude any other or further exercise thereof or the exercise of any other right, power, or remedy. No waiver by any party hereto to any breach of or default in any term or condition of this Agreement shall constitute a waiver of or assent to any succeeding breach of or default in the same or any other term or condition hereof.

12.6 Succession

The covenants and agreements contained herein shall be binding upon, and inure to the benefit of, the heirs, legal representatives, successors, and permitted assigns of the respective parties hereto.

12.7 Assignment

This Agreement may not be assigned by either party without the prior written consent of the other party; provided, however, that the Network may assign this Agreement in connection with a sale, merger, or other transaction in which all or substantially all the assets of the Network are sold or exchanged. Both Parties acknowledge that an assignment of this Agreement by either party may constitute a revision of the First Renewal Charter and may require approval by the SUNY Trustees pursuant to the Act.

12.8 Form of Execution

This Agreement may be executed by facsimile and in any number of counterparts, each of which shall be an original, but all of which shall together constitute one and the same instrument.

12.9 Compliance with Law

Each of the School, including its Board of Trustees and staff, and the Network shall manage and operate the School, and shall conduct all of its affairs in compliance with all applicable federal, state, and local statutes, rules and regulations, including without limitation requirements prohibiting discrimination in employment.

12.10 FERPA

The School hereby designates employees of the Network, to the extent permitted by law, as agents of the School having a legitimate educational interest such that they are entitled to access to education records under 20 U.S.C. 5 1232g, the

Family Educational Rights and Privacy Act ("FERPA"). The Network, its officers, and employees shall comply with FERPA at all times.

12.11 Access to Records

The Network and its employees, officers, and representatives shall have access at all times to the properties, books, and records of the School. The School shall furnish such information and documents in its possession relating to the School as the Network may request in its sole discretion. The School shall have access at all times to the properties, books, and records of the School. the Network shall furnish such properties, books, and records in its possession to the School as the school may request.

12.12 Relationship of Parties

The Network and its employees shall serve as independent contractors in rendering services under this Agreement and are not and shall not be the employees or servants of the School or the Board of Trustees. The Network may act as an agent of the School or the Board of Trustees in conducting transactions necessary for the operation of the School. Notwithstanding any other provision of this Agreement, the parties hereto understand and agree that the Network shall be required only to devote such of its resources to providing the services called for by this Agreement as are reasonably necessary and appropriate to the discharge thereof. The School expressly acknowledges that the Network shall not be required to apply its full resources to the performance of this Agreement.

12.13 Absence of Partnership

Neither this Agreement nor any arrangement contemplated hereby shall create the relationship of partners, joint ventures, or principal and agent between the Parties hereto or any of their respective affiliates, except as the parties expressly agree otherwise in writing. None of the parties hereto has any authority to represent or bind the other parties in any manner whatsoever.

12.14 Further Actions

Each Party hereto shall, at all times, cooperate in taking such actions and doing or causing to be done all things necessary, proper, or advisable or reasonably requested by the other party hereto to effect the intent and purpose of this Agreement and implement the transactions contemplated hereby.

12.15 Entire Agreement

This Agreement is the entire agreement of the parties with respect to the subject matter hereof and supersedes all other prior agreements, understandings, statements, representations, and warranties, oral or written, express or implied,

between the parties hereto and their respective affiliates, representatives, and agents in respect of the subject matter hereof.

12.16 Delegation of Authority

Nothing in the Agreement shall be construed as delegating to the Network any of the powers or authority of the School, which are not subject to delegation by the School under New York law.

12.17 Survival

All representations, warranties, and indemnities made herein shall survive termination of this Agreement.

In witness whereof, the Parties have caused this Agreement to be signed and delivered by their duly authorized representatives.

This Agreement contains a binding arbitration provision which may be enforced by the Parties.

Success Charter Network, Inc.

By: _____

Title: _____

Date: _____

Harlem Success Academy Charter School 5

By: _____

Title: _____

Date: _____

between the parties hereto and their respective affiliates, representatives, and agents in respect of the subject matter hereof.

12.16 Delegation of Authority

Nothing in the Agreement shall be construed as delegating to the Network any of the powers or authority of the School, which are not subject to delegation by the School under New York law.

12.17 Survival

All representations, warranties, and indemnities made herein shall survive termination of this Agreement.

In witness whereof, the Parties have caused this Agreement to be signed and delivered by their duly authorized representatives.

This Agreement contains a binding arbitration provision which may be enforced by the Parties.

Success Charter Network, Inc.

By: _____

Title: _____

Date: _____

Harlem Success Academy Charter School 5

By: _____

Title: _____

Date: _____

Academic and Business Services Agreement

By and Between

The Success Charter Network, Inc.

and

Bronx Success Academy Charter School 1

This academic and business services agreement (the "Agreement") is made and entered into as of 6/29/10 (the "Effective Date") by and between The Success Charter Network, Inc., a Delaware not for profit corporation ("the Network") and Bronx Success Academy Charter School 1, a New York education corporation (the "School," and the School together with the Network, each a "Party" and collectively the "Parties").

Whereas, the Network is a charter management organization with the qualifications, experience, and expertise necessary to effectively manage charter schools;

Whereas, the Anthorizer (as defined below) granted the School anthority to operate a charter school;

Whereas, the School is entering in to this Agreement with the Network in order to meet its obligations under the Charter Contract (defined below), especially its commitment to providing a high-quality education for its students;

Whereas, it is the Parties' intention to create a relationship based on trust, common educational objectives, and clear accountability, through which they will work together to bring educational excellence to the School;

Whereas, the Parties desire to enter into a written agreement to set forth the terms and conditions of their agreement;

Now, therefore, in consideration of the recitals and the mutual covenants, representations, warranties, conditions, and agreements hereinafter expressed, the Parties agree as follows:

1. DEFINITIONS

"Agreement" has the meaning set forth in the recitals.

"Authorizer" means the State Education Department.

"Board of Trustees" means the Board of Trustees of the School.

"Charter Contract" means the School's contract with the Authorizer, which authorizes the Board of Trustees to organize and operate the School, and which includes the final charter application.

"Charter School Law" means the laws permitting the creation of charter schools in the State of New York and governing the development and operation of charter schools in the State of New York, including the *New York Charter Schools Act of 1998*, as amended.

"Effective Date" has the meaning set forth in the recitals.

"Facility" means a building or other structure of sufficient size to house the actual and anticipated enrollment level of the School, suitable for use by the School, and meeting all applicable building codes, zoning ordinances and laws, environment laws and regulations, the Charter Contract, and all other laws and regulations applicable to the operation of the School.

The "Marks" refer to the "Bronx Success Academy 1" and "Success Academy" trademarks.

The "Network" has the meaning set forth in the recitals.

The "Network School Model" means the school model based on the Network curriculum, described in the Charter Contract.

"Party" and "Parties" have the meaning set forth in the recitals.

"Principal" means the employee of the School responsible for the day-to-day academic program of the School.

"Proprietary Information" means all copyright and other proprietary rights to all instructional materials, training materials, curriculum and lesson plans, and any other materials developed in whole or in party by the Network, its employees, agents, or subcontractors.

"Regulatory Authority" means any United States federal, State, or local government, or political subdivision thereof, any authority, agency, or commission entitled to exercise any administrative, executive, judicial, legislative, regulatory, or taxing authority or power, any court or tribunal (or any department, bureau, or division thereof), any arbitrator or arbitral body, or any similar body.

"Reimbursement Payment" means reimbursement payments for certain expenses incurred by the Network on behalf of the School.

"School" has the meaning set forth in the recitals.

"State" means New York State.

2. REPRESENTATIONS AND WARRANTIES

2.1 Representations and Warranties of the Network

The Network represents and warrants as follows:

(a) Organization and Status. The Network is a non-stock, not for profit corporation duly organized under the laws of the state of Delaware, with the purpose and legal ability to contract to provide educational management services. The Network shall notify the School of any change in its corporate status. The Network shall not change its corporate status such that this Agreement is materially affected.

(b) Authority. The Network is authorized to do business in the State. The Network has all requisite power and authority to execute and deliver this Agreement, to perform its obligations hereunder, aud to otherwise consummate the transactions contemplated hereby. This Agreement constitutes a valid and binding obligation of the Network, enforceable against the Network in accordance with its terms.

(c) Full Disclosure. No representation or warranty of the Network herein and no statement, information, or certificate furnished or to be furnished by the Network pursuant hereto or in connection with the transactions contemplated hereby contains any untrue statement of a material fact or omits or will omit to state a material fact necessary in order to make the statements contained herein or therein not misleading.

(d) Litigation. There is no suit, claim, action, or proceeding now pending or, to the knowledge of the Network, threatened before any Regulatory Authority to which the Network is a Party or which may result in any judgment, order, decree, liability, award, or other determiuation which will or may reasonably be expected to have a material adverse effect upou the Network. No such judgment, order, decree, or award has been entered against the Network which has, or may reasonably be expected to have, such effect. There is no claim, action, or proceeding now pending or, to the knowledge of the Network, threatened before any Regulatory Authority involving the Network which will or may reasonably be expected to prevent or hamper the performance of the agreements of the Network contemplated by this agreement.

(e) Ability. The Network, its personnel and subcontractors, being employed and/or used, or to be employed and/or used, by the Network, for the performance of its obligations hereunder are qualified, experienced, and

have expertise to carry out the management services provided for herein with all necessary professional skill, care, and diligence.

(f) Ownership of Marks, Proprietary Information, and the Network School Model. The Network is the owner of and has the right to use and license to the School, or permit the School to use, as provided herein, the Marks, Proprietary Information and the Network School Model, and such ownership, use, or license does not infringe upon the rights of any third party.

(g) Conduct of the Network. The Network has complied, and at all times during the Term will materially comply, collectively, with all local, State, and federal laws and regulations that are applicable to the Network, which include, but are not limited to the Internal Revenue code, the non-profit corporation law of Delaware and the Charter Schools Law. The Network has maintained and will maintain adequate records of the activities and decisions of the Network to ensure and document compliance with all such laws and regulations.

2.2 Representations and Warranties of the School

The School represents and warrants as follows:

(a) Organization and Tax Exempt Status. The School is, and at all times during the Term will be, an education corporation duly organized under the laws of the New York, with the purpose and legal ability to contract to operate a charter school and to contract for education management services. The School is recognized by the Internal Revenue Service as a tax exempt organization.

(b) Authority. The School has all requisite power and authority to execute and deliver this Agreement, to perform its obligations hereunder, and to otherwise consummate the agreements contemplated hereby and thereby. This Agreement constitutes a valid and binding obligation of the School, enforceable agaiust the School in accordance with its respective terms.

(c) Litigation. There is no suit, claim, action, or proceeding now pending or, to the knowledge of the School, threatened before any Regulatory Authority to which the School is a Party or which may result in any judgment, order, decree, liability, award, or other determination which will or may reasonably be expected to have a material adverse effect upon the School. No such judgment, order, decree, or award has been entered against the School which has, or may reasonably be expected to have, such effect. There is no claim, action, or proceeding now pending or, to the knowledge of the School, threatened before any Regulatory Authority involving the School which will or may reasonably be expected to prevent

or hamper the consummation of the agreements contemplated by this Agreement.

(d) Full Disclosure. No representation or warranty of the School herein and no statement, information, or certificate furnished or to be furnished by the School pursuant hereto or in connection with the agreement contemplated hereby contains any untrue statement of a material fact or omits or will omit to state a material fact necessary in order to make the statements contained herein or therein not misleading.

(e) Conduct of the School and the Board of Trnstees. The School has materially complied, and at all times during the Term will materially comply, collectively, with all local, State, and federal laws and regulations that are applicable to the School, which include, but are not limited to the Internal Revenue Code, the non-for-profit corporation law of New York, the open records and meetings laws of New York, and the Charter Schools Law. Any lack of compliance shall not be attributable to the Network. The School has maintained and will maintain adequate records of the activities and decisions of the School to ensure and document compliance with all such laws and regulations. The School agrees to provide the Network with copies of all such records, and to allow the Network to, at the Network's discretion, assist with the preparation and retention of such records.

(f) Due Authorization. The Board of Trustees is authorized to organize and operate the School and the School is vested by the Authorizer with all powers necessary to carry out the educational program outlined in the Charter Contract. Except as so delegated to the Network herein (unless such delegation is prohibited by applicable law), the School shall at all times retain all rights and responsibilities under the Charter Contract.

3. AUTHORITY

3.1 Delegation of Authority to the Network

The School hereby authorizes the Network to undertake the functions specified in this Agreement in regards to business and academic services of the School on behalf of the School, it being understood that, at all times, the Network remains accountable and subject to the oversight of the School. The School also authorizes the Network to take such reasonable other actions that may not be expressly set forth in this Agreement, but which are implicit in this Agreement and are necessary in the Network's good faith and reasonable judgment to properly and efficiently manage or operate the School, provided such actions are consistent with the Charter Contract, applicable laws, and the annual School budget approved by the Board of Trustees.

3.2 The Network's Authority to Subcontract

Except to the extent prohibited by law of this Agreement, the Network may subcontract any function or service it is obligated to provide hereunder, provided that no such subcontract permitted hereunder shall relieve or discharge the Network from any obligation or liability under this Agreement.

3.3 Authorizer Authority

Nothing in this Agreement shall be construed in any way to limit the authority of the State Education Department, including, but not limited to, the authority to take and enforce action pursuant to Section 2855 of the *New York Charter Schools Act of 1998*, as amended.

3.4 Conflict with Charter

To the extent there are any conflicts between the terms of the Charter Contract and the terms of this Agreement, the terms of the Charter Contract shall control.

4. DUTIES AND OBLIGATIONS OF THE NETWORK

In order to assist the School in carrying out the terms of the Charter Contract, the Network agrees to provide the educational management and operational services set forth under this Section, and in connection therewith, shall have the right to direct the following duties, in consultation and communication with the Board of Trustees and/or the School administration on key matters:

4.1 Education and Instruction-Related Services

The Network shall provide the following education aud iustruction-related services to and on behalf of the Charter School, all of which shall be researched-based and rooted in sound educational philosophy:

(a) Designing the educational programs and programs of instruction including rules and requirements relating to student admissions, student records, access to equal educatioual opportunities, school year and school day requirements, special education, student testiug, extracurricular and co-curricular activities and programs;

(b) Selecting and acquiring instructional aud curricular materials, equipment and supplies, which may be acquired from affiliated or unaffiliated entities; provided, however, that if such materials, equipment, and supplies are acquired from persons or entities affiliated with the Network, the prices paid for such items shall be reasonable and fair to the School in

light of the nature of the items purchased and in all cases such materials, equipment and supplies shall be and remain property of the School, subject to any superceding liens or encumbrances; and

(c) Designing, implementing, and monitoring professional development activities for the School's instructional personnel.

4.2 Management and Operation Services

The Network shall provide the following management and operation services to and on behalf of the School:

(a) Generally managing the business administration of the School, including the preparation and maintenance of operating procedures of the School;

(b) Managing personnel and payroll functions of the School for employees of the School, as more specifically described in Section 4.3 below;

(c) Arranging for the contracting of services required by the School, which shall include but not necessarily be limited to, transportation, technology, auditing, custodial and food services, and which services shall be paid for in accordance with the appropriate line items in the School's budget;

(d) Evaluating and identifying the School's facilities including making any improvements thereto as the Network shall deem necessary or appropriate for the attainment of the School's educational objectives;

(e) Managing the purchasing or leasing of materials, supplies, and equipment for use at the School, provided that the items shall be and remain the property of the School; provided further that in the event the School intends to enter into a lease agreement with the Network, then such an agreement shall be separately documented and not be made a part of or incorporated into this Agreement and such lease agreement shall be separately negotiated by independent counsel representing the School;

(f) Arranging for the contracting on behalf of the School for the provision of any other services or the acquisition of any other property, which the Network reasonably deems necessary to the attainment of the educational goals of the School;

(g) Designing and implementing the School's student recruitment and enrollment procedures; and

(h) Periodically providing students, parents, faculty members and other School stakeholders with written School informatiou or materials,

provided that in all cases such communication must be prior-approved by the Board of Trustees or Principal, as applicable.

4.3 Human Resources and Employment-Related Services

The Network shall assist with the selection, training, and management of the educational and administrative staff of the School, including, determining, with the Principal, staff needs; recommending the hiring and firing of staff, as may be required from time to time (after approval from the Board of Trustees in the case of the Principal and with the Principal in the case of all other staff personnel); assisting the Board of Trustees in the case of the Principal and assisting the Principal in the case of all other staff personnel in setting compensation levels (subject to the requirements of applicable laws or regulations); directing the development and training of staff (in cooperation and consnltation with the School administration); establishing procedures for hiring substitute staff so that the School is adequately staffed at all times; establishing personnel policies upon Board of Trustees approval; and establishing employment related administrative procedures, if any. The parties acknowledge and agree that, the principal, teachers, administrative and other staff of the School shall be employees of the School and not of the Network. The Network will also arrange for the administration of employee benefits for employees of the School.

4.4 Budgeting and Financial Reporting Services

Prior to the beginning of each fiscal year, the Network shall prepare with the Principal and submit to the Board of Trustees for its review a proposed annual budget for such fiscal year. The final annual budget, to the extent that the Network in its reasonable discretion considers it financially prudent and in the educational interests of the School students to do so, shall incorporate any amendments and revisions proposed by the Board of Trustees, provided that said amendments and revisions do not prevent the School from fully compensating the Network for the educational management and operations services performed under this Agreement. The Network shall discuss with the Board of Trustees or its designee any amendments or revisions proposed by the Board of Trustees that the Network does not reasonably consider prudent to incorporate. The Network and the Board of Trustees or its designee shall come to agreement on the resolution of any such proposed amendments or revisions prior to offering a final budget to the Board of Trustees for its approval.

The Network shall also provide other budgets, financial reports, and financial statements to the Board of Trustees as may be required by the Charter Contract or applicable law and regulations, including:

(a) Within 45 days after the close of each fiscal quarter, unaudited financial statements of the School for the fiscal quarter most recently ended;

(b) From time to time upon the request of the Board of Trustees, but no less frequent than on a quarterly basis, a financial statement that provides a detail of budget to actual revenues and expenditures, with an explanation of variances;

The Network shall also cooperate with the auditors retained by the Board of Trustees to prepare annual audited financial statements of the School. The Network shall coordinate its work and the work of the auditors so as to allow for the delivery of such audited statements within 120 days after the close of each fiscal year.

4.5 Procurement of Insurance

The Network shall procure and maintain for itself and separately, on behalf of the School, insurance policies covering commercial liability, worker's compensation, directors and officers liability coverage, and any other insurance required by applicable law or by any agreement to which the Network or the School is a party.

4.6 Funding of Operating Deficits

In the event that the cash receipts of the School are insufficient to fund all of the cash expenditures required to be made by or on behalf of the School for any fiscal year, the Network may advance funds to the School (any such advance being referred to herein as an "Operating Deficit Contribution"). Such Operating Deficit Contribution, if any, shall accumulate no interest.

4.7 Charter School Performance Standard

Provided that the Board of Trustees and the School administration support the recommendations made by the Network with respect to material educational, operational, financial, and employment-related matters affecting the School (and the implementation, management, and assessment of same), the Network warrants that the School shall attain, during or prior to the last year of the term of its First Charter, the academic performance standards committed to in its First Charter or, alternatively, its students shall attain a level of academic performance, as measured by the outcome of standardized, local, national, or state-wide testing, which exceeds the average performance of students of comparable socioeconomic background in the School's district.

5. OBLIGATIONS OF THE CHARTER SCHOOL

The School, acting through its Board, shall be obligated to perform the following duties or services:

5.1 Approval of School Policies

The School shall cooperate with the Network in the preparation of broad policies of the School, which shall be consistent with the Charter Contract.

5.2 Maintenance of Charter Contract

The School shall do, or cause to be done, all things necessary to ensure that all legal requirements, and all such conditions as may have been imposed by the authority granting the Charter Contract, are fully complied with at all times. If the School shall at any time receive notice from any public authority or other person that the School is or may be in violation of the Charter Contract, the Act, or any provision of any applicable law or regulation, the School shall immediately notify the Network of the asserted violation and shall thereafter work diligently with the Network to determine whether such asserted violation in fact exists, to correct any violation found to exist, and to vigorously contest the asserted violation if the same is found not to exist.

5.3 Payment of the Network Fee

As compensation to the Network for the services rendered to the School pursuant to this Agreement, the School shall pay to the Network an amount each year equal to the product of (x) the total full-time equivalent enrollment of students in the School as defined under Section 119.1 of the New York State Commissioner of Edncation Regulations multiplied by (y) one thousand two hundred forty-two dollars and eighty-eight cents ($1242.88) (the "Per Pupil Fee"), provided that the Per Pupil Fee shall be increased or decreased each year by the percentage increase or decrease in the Final Adjusted Expense Per Pupil for charter schools in the New York City school district as calculated by the New York State Education Department annnally, commencing with and including the 2008-2009 school year (the product of (x) multiplied by the Per Pupil Fee, the "the Network Fee"), such that the Per Pupil Fee shall equal 9.9975% of the New York City's Final Adjusted Expense Per Pupil. The Network Fee shall be payable to the Network bi-monthly on or before the first business day of July, September, November, January, March, and May, with appropriate adjustments made on a bi-monthly basis to reflect actual student enrollment changes. Solely for purposes of determining the bimonthly payments to the Network prior to the fall opening of the School in any fiscal year, the total student enrollment projected in the final Board approved budget for the fiscal year will be utilized. Any Network Fee, or portion thereof, not paid within thirty (30) days of its due date shall bear interest at an annnalized rate of 7.5% per annnm on the ontstanding past due amonnt, provided that such past due payments are not as a result of the New York City Department of Education's failure to timely remit the Adjusted Expense Per Pupil to the Charter School.

In the event of any material change in the level or scope of the Network's services required under this Agreement due to a change in the School's key design

elements, curriculum, programs, operation, or any other reason, the parties will negotiate in good faith an appropriate adjustment in the Network Fee to reflect the additional services to be provided by the Network, except that no material change affecting the Network Fee shall be made to the key design elements without the mutual consent of the Board and the Network.

It is understood by both parties that all expeuses incurred by the Network and its employees in the performance of this Agreement shall be included in the Network Fee and shall not be reimbursable to the Network from the Charter School except as provided for in section 5.4 below; provided, however, that in the event that the Network and the Charter School enter into a separate agreement or agreements whereby the Charter School commits to reimbursing the Network for certain expenses, this section shall not apply to such reimbursable expenses.

5.4 Reimbursement of Expenses

The following expenses incurred by the Network shall be subject to reimbursement by the School:

(a) All books, curriculum, furniture, technology, supplies or other property that is delivered to the School;

(b) All software for computers located at the School;

(c) All insurance purchased for the benefit of the School;

(d) All advertising purchased for the benefit of the School;

The Reimbursement Payment shall be due on the same days the Network Fee is due and shall be subject to the same provisions with respect to late payment. The Network shall advise the School of the amount of the Reimbursement Payment ten (10) days prior to the date on which it is due.

6. TAX STATUS

Both the Network and the School shall take all reasonable steps to maintain status as a tax-exempt organization under federal and state law such that contributions to the School are deductible to the donor for federal income tax purposes. In the event of arbitration pursuant to Section 8 of this Agreement, the School and the Network shall agree that, notwithstanding any claims for relief each may seek from the other, it will require that any relief granted be consistent with maintaining the School's tax-exempt status. If the Board of Trustees and the Network conclude it is appropriate to do so, the School may seek to establish a separate tax-exempt organization to conduct fund raising activities and receive tax-deductible contributions in support of the School and/or of education generally.

7. EFFECTIVE DATE AND DURATION

7.1 This Agreement shall take effect upon (a) the agreement of both parties, and (b) the approval by the applicable Authorizer of the Charter (or its approval by operation of law) pursuant to subdivision 2852(5-a) or (5-b) of the Act.

7.2 Provided that the School satisfies the academic performance results set forth in the First Charter by the close of the term of this Agreement, which shall be June 30, this Agreement may automatically renew for four (4) successive one (1) year renewal periods, except that the Board of Trustees, by majority vote, may terminate renewal of this Agreement. The parties hereto agree to commence negotiations regarding renewal of this Agreement no later than 90 (ninety) days before the expiration of this Agreement (the end of the fifth year of the agreement).

7.3 In the event this Agreement is not renewed for any reason, then the School shall pay to the Network any and all deferred or otherwise owed Network Fees, Operating Deficits Contributions, or any other compensation accrued under or in connection with this Agreement. Such fees shall be paid ratably to the Network on a monthly basis within a 48 month period, but in no event shall monthly payments to the Network be less than seventy-five percent (75%) of monthly payments then currently paid by the School to any other education management company, staff trainer, consultant, curriculum developer, or provider of central services.

7.4 If it is determined that the School shall close, the Board of Trustees shall delegate to the Principal the responsibility to manage the dissolution process under the advisement of the Treasurer of the Board of Trustees. This process shall include notification to parents of children currently enrolled in the School.

The School will work closely with appropriate representatives of the district of location, the New York City Department of Education (NYC DOE), to develop and implement a dissolution plan that will govern the process of transferring students and student records. Initially, a list of students attending the School will be sent to the NYC DOE. The School will coordinate any planned or voluntary dissolution with the district to facilitate reintegration of its students and their records, and will provide the district with a minimum notice of 120 days for any voluntary dissolution.

Prior to dissolution, the School will conduct a series of meetings for parents to provide information about the dissolution and to support them in making decisions regarding selection of educational programs for their children. School representatives will also meet one-on-one with each enrolled student's family to ensure that all parents are aware of their options regarding educational services

for their child in New York City public schools, charter schools, and nonpublic schools.

The dissolution plan will provide that all property which the School has leased, borrowed, or contracted for use will be returned. The return of such property will conform with contractual prearrangement, where applicable, or will be done with reasonable promptness. All remaining assets of the School shall be transferred to another charter school within the New York City School District.

The School will establish an escrow account of no less than $75,000 to pay for legal and audit expenses that would be associated with dissolution should it occur. The account will be created over the School's first three years of instruction in increments of $25,000 each year.

8. TERMINATION

8.1 This Agreement may be terminated for any reason by the School with 60 days notice and by the Network with 180 days notice.

8.2 This Agreement may also be terminated under the following conditions:

(a) If the Network shall under such laws as shall be applicable to it commence any case or proceeding, or file any petition in bankruptcy, or for reorganization, liquidation or dissolution, or be adjudicated, insolvent or bankrupt, or shall apply to any tribunal for a receiver, intervenor, conservator or trustee for itself or for any substantial part of its property; or if there shall be commenced against it any such action and the same shall remain undismissed; or if by any act it shall indicate its consent to, approval of, or acquiescence in any such proceeding, or the appointment of any receiver, intervenor, conservator or trustee for it or any substantial part of its property or shall suffer any of the same to continue undischarged; or if it shall become subject to any intervention whatsoever that shall deprive it of the management of the aggregate of its property or any substantial part thereof; or if it shall wind up or liquidate its affairs or there shall be issued a warrant of attachment, execution, or similar process against any substantial part of its property, and such warrant, execution or process shall remain undismissed, unbounded or undischarged for a period of ninety (90) days, this Agreement shall be deemed immediately terminated upon the occurrence of such eveut.

(b) If the Network is found by an administrative or judicial body to have made fraudulent use of funds, or if an administrative or judicial body has permanently revoked any license which may be required for the Network to carry on its business and perform its obligations and functions under

this Agreement, this Agreement shall be deemed immediately terminated upon the occurrence of such event.

(c) If there shall occur or shall become known to either party an intentional material breach of the other's obligations, representation, or warranties under this Agreement, including, without limitation, the improper delay or non-payment of the Network Fee, such party may terminate this Agreement npon ninety (90) days written notice to the other provided that the other party may prevent termination by curing such breach within ninety (90) days of receipt of such written notice.

(d) If there shall become known to the Board of Trustees at any time after the effective day of this Agreement an intentional material breach of the Network's obligations under this Agreement which, in the Board of Trustees' reasonable judgment, jeopardizes the safety, health, or well-being of the students at the School, the Board of Trustees shall have the right to terminate this Agreement immediately.

(e) The Network shall have the right to terminate this Agreement, on thirty (30) days prior written notice to the Board of Trustees, in the event that performance of its obligations hereunder is made impossible or impracticable by circumstances beyond the Network's control.

(f) The Network and/or the School may terminate said agreement for cause at any time by unanimous vote of either of the entities' boards. Such termination is subject to the stipulations of item 9.2 and following.

8.2 Upon expiration or termination of this Agreement for any reason, the Parties agree to cooperate in good faith and use their best efforts to complete a prompt and orderly separation, it being the intention of both parties that the School shall remain open and operating in its normal course in the event of such expiration or termination of this Agreement, in accordance with the following rights and obligations of the Parties:

(a) The School shall have the right to use the Network Proprietary Information, as defined under Section 9 hereof, then currently in use by the School, until the last day of the then current school year. The School may continue to use the Network Proprietary Information indefinitely thereafter for a reasonable aunual fee that shall be agreed by the Parties or, failing that, determined by an arbitrator pursuant to the arbitration provisions herein, which fee shall not exceed 20% of the Network Fee that would otherwise be payable were this Agreement still iu place;

(b) The Network shall provide the School with all student records, financial reports, employee records, and other School data in the Network's possession and not currently in possession by the Board of Trustees; and

(c) The Network shall provide the School with reasonable educational and operational transition assistance for a period of sixty (60) days after the termination of this Agreement, provided that the School shall pay to the Network all fees, expenses and other costs of the Network consultants and agents who may, from time to time, upon mutual agreement of the parties, provide assistance to the School or its students.

8.3 In the event that this Agreement is terminated or not renewed at a time when the Network has loaned funds to the School, guaranteed any debt or other financial obligation of the School, or provided credit support, whether in the form of a letter of credit or otherwise, to the School, notwithstanding any other provision of this Agreement to the contrary, such termination shall be effective and the School shall remain liable to the Network until the first date on which such loan has been repaid in full, such guarantee has been released by the beneficiary thereof, or such letter of credit or other credit support has been released and/or returned to the Network, all in accordance with the term therein.

8.4 In the event of termination, neither Party shall have any further obligations to the other hereunder except those which cannot be disclaimed by law, liability for amounts accrued and unpaid hereunder, and obligations expressly stated to be effective after the termination hereof.

8.5 In the event to Termination, the Network may require the School to take such steps as shall be necessary to make clear to the public that the School is no longer associated with the Network and those schools associated with the Network.

9. PROPRETARY INFORMATION

9.1 The School agrees that the Network and its affiliates shall own all trademark, copyright, and other proprietary rights (collectively the "Intellectual Property Rights"), whether developed before or after the date of this Agreement, in and to all instructional materials, training materials, curriculum and lesson plans, instructional and management methods, and any other materials and methods developed or provided in whole or in part by the Network, its employees, agents or subcontractors, and any person working under the Network's direction (collectively the "the Network Proprietary Information"). During the term of this Agreement and after its termination, the School shall maintain all the Network Proprietary Information and written and oral ideas, information or designs disclosed to the School, in confidence, and shall not disclose, publish, copy, transmit, modify, alter, or use in any fashion the Network Proprietary Information other than to the extent necessary for implementation of this Agreement. During the term of this Agreement and after its termination, the School shall take reasonable measures to assure that no School employees or agents disclose,

pnblish, copy, transmit, modify, alter, or use such confidential information or the Network Proprietary Information other than in accordance with this Agreement.

9.2 The School agrees that the Network shall own all intellectual property rights in all material that is developed by the parties together or by any employee or consultant of the School pursuant to this Agreement. The School agrees that it will take reasonable measures to ensure that all contribntions of its employees or consultants to such materials will constitute a "work made for hire" within the meaning of the Copyright Act of 1976, 17 U.S.C. 101. In the event that such works may not constitnte a "work made for hire," the School agrees to cause the applicable employee or consnltant to execnte an assignment of his or her rights in such contribution to the Network.

10. INDEMNIFICATION

10.1 Liability

The Network shall not be liable for any act or omission resulting in loss or damage to the School or the Board of Trustees, or any of their respective affiliates, except to the extent that snch loss or damage is cansed by the gross negligence or willful misconduct of the Network. The Network makes no representation or warranty of successful management or operation of the School by the Network. The liability of the Network, if any, under this Agreement shall under no circnmstances extend to indirect or consequential damages. Under no circumstances shall the Network have any liability nnder this Agreement for any action taken by it at the direction of, or specifically approved by, the Board, except to the extent that the Network shall have been grossly negligent or engaged in willful misconduct in the carrying out of such instructions.

10.2 Indemnification by Charter School

The School shall indemuify aud hold harmless the Network and its affiliates, and their directors, officers, employees, subcontractors, agents or representatives (the "Network Indemnitees") from, against, and with respect to any and all claims, demands, suits, liabilities losses, damages, costs and expenses (including interest, penalties, and attorney's fees and disbursements) (collectively, "the Network Claims") arising out of or as a result of any action taken or not taken by the Network or any of the Network Indemnities pursuant to this Agreement; in connection with any material noncompliance by the Network with any agreements, covenants, warranties, or undertakings of the Network contained in or made pursuant to this Agreement or otherwise; and relatiug to any material breach of the representations and warranties of the Network contained in or made pursuant to this Agreement, other than the Network Claims arising out of or as a result of the gross negligence, recklessuess or willful misconduct of the Network. Iu addition, the School shall reimburse the Network for any and all legal expenses

and costs associated with the defense of any the Network Claim other than the Network Claims arising out of the gross negligence, recklessness, or willful misconduct of the Network.

10.3 Indemnification by the Network

The Network shall indemnify and hold harmless the School and its affiliates, and their directors, officers, employees, subcontractors, agents or representatives (the "Charter School Indemnitees") from, against, and with respect to any and all claims, demands, suits, liabilities, losses, damages, costs, and expenses (including interest, penalties, and attorney's fees and disbursements) (collectively, "Charter School Claims") arising out of or as a result of any action taken or not taken by the School or any of the Charter School Indemnitees pursuant to this Agreement; in connection with any material noncompliance by the School with any agreements, covenants, warranties, or undertakings of the School contained in or made pursuant to this Agreement or otherwise; and relating to any material breach of the representations and warranties of the School contained in or made pursuant to this Agreement, other than Charter School Claims arising out of or as a result of the gross negligence, recklessness, or willful misconduct of the Charter School. In addition, the Network shall reimburse the School for any and all legal expenses and costs associated with the defense of any Charter School Claim other than Charter School Claims arising out of the gross negligence, recklessness, or willful misconduct of the Charter School.

11. ARBITRATION

11.1 General

Any controversy or claim arising out of or relating to this Agreement or the breach hereof shall be finally settled by arbitration. The arbitration shall be held in New York, New York and shall be conducted in accordance with the Rules of the American Arbitration Association ("AAA") in effect at the time of the arbitration.

12. MISCELANEOUS PROVISIONS

12.1 Notices

All communications and notices relating to this Agreement are to be delivered in writing, with confirmation of delivery, to the following address or to such other address as either party may designate from time to time.

If to the Charter School, to:

Robert Reffkin, Chairman
c/o Goldman Sachs

[redacted]
New York, NY 10282

With a copy to:

Michele Caracappa, Principal
Bronx Success Academy Charter School 1
510 East 141st Street
Bronx, NY 10454

If to the Network, to:

Eva Moskowitz, CEO
Success Charter Network
34 West 118th Street, 2nd Floor
New York, NY 10026

12.2 Governing Law

The rights and remedies of either Party under this Agreement shall be cumulative and in addition to any other rights given to either Party by law and the exercise of any right or remedy shall not impair either Party's right to any other remedy. This Agreement shall be governed by and construed and enforced in accordance with the internal laws of the State of New York (other than the provisions thereof relating to conflicts of law).

12.3 Enforceability and Validity of Certain Provisions

If any provisions of this Agreement shall be held, or deemed to be, or shall, in fact, be inoperative or unenforceable as applied in any particular situation, such circumstances shall not have the effect of rendering any other provisions herein contained invalid, inoperative, or unenforceable to any extent whatsoever. The invalidity of any one or more phrases, sentences, clauses, or paragraphs herein contained shall not affect the remaining portions of this Agreement or any part hereof.

12.4 Entire Agreement

This Agreement shall not be changed, modified, or amended nor shall a waiver of its terms or conditions be deemed effective except by a writing signed by the parties hereto. This Agreement constitutes the entire agreement between the parties with respect to the subject matter hereof and supercedes all prior agreements or understandings, written or oral, in respect thereof.

12.5 Waiver

The failure by either party hereto to insist npon or to enforce its rights shall not constitnte a waiver thereof, and nothing shall constitute a waiver of snch party's right to insist upon strict compliance with the provisions hereof. No delay in exercising any right, power, or remedy created hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power, or remedy by any such party preclude any other or further exercise thereof or the exercise of any other right, power, or remedy. No waiver by any party hereto to any breach of or defanlt in any term or condition of this Agreement shall constitnte a waiver of or assent to any succeeding breach of or defanlt in the same or any other term or condition hereof.

12.6 Succession

The covenants and agreements contained herein shall be binding npon, and innre to the benefit of, the heirs, legal representatives, snccessors, and permitted assigns of the respective parties hereto.

12.7 Assignment

This Agreement may not be assigned by either party withont the prior written consent of the other party; provided, however, that the Network may assign this Agreement in connection with a sale, merger, or other transaction in which all or substantially all the assets of the Network are sold or exchanged. Both Parties acknowledge that an assignment of this Agreement by either party may constitute a revision of the First Renewal Charter and may require approval by the SUNY Trnstees pnrsuant to the Act.

12.8 Form of Execution

This Agreement may be executed by facsimile and in any number of counterparts, each of which shall be an original, but all of which shall together constitute one and the same instrument.

12.9 Compliance with Law

Each of the School, including its Board of Trustees and staff, and the Network shall manage and operate the School, and shall conduct all of its affairs in compliance with all applicable federal, state, and local statutes, rules and regulations, including without limitation requirements prohibiting discrimination in employment.

12.10 FERPA

The School hereby designates employees of the Network, to the extent permitted by law, as agents of the School having a legitimate educational interest such that they are entitled to access to education records under 20 U.S.C. 5 1232g, the

Family Educational Rights and Privacy Act ("FERPA"). The Network, its officers, and employees shall comply with FERPA at all times.

12.11 Access to Records

The Network and its employees, officers, and representatives shall have access at all times to the properties, books, and records of the School. The School shall furnish such information and documents in its possession relating to the School as the Network may request in its sole discretion. The School shall have access at all times to the properties, books, and records of the School. the Network shall furnish such properties, books, and records in its possession to the School as the school may request.

12.12 Relationship of Parties

The Network and its employees shall serve as independent contractors in rendering services under this Agreement and are not and shall not be the employees or servants of the School or the Board of Trustees. The Network may act as an agent of the School or the Board of Trustees in conducting transactions necessary for the operation of the School. Notwithstanding any other provision of this Agreement, the parties hereto understand and agree that the Network shall be required only to devote such of its resources to providing the services called for by this Agreement as are reasonably necessary and appropriate to the discharge thereof. The School expressly acknowledges that the Network shall not be required to apply its full resources to the performance of this Agreement.

12.13 Absence of Partnership

Neither this Agreement nor any arrangement contemplated hereby shall create the relationship of partners, joint ventures, or principal and agent between the Parties hereto or any of their respective affiliates, except as the parties expressly agree otherwise in writing. None of the parties hereto has any authority to represent or bind the other parties in any manner whatsoever.

12.14 Further Actions

Each Party hereto shall, at all times, cooperate in taking such actions and doing or causing to be done all things necessary, proper, or advisable or reasonably requested by the other party hereto to effect the intent and purpose of this Agreement and implement the transactions contemplated hereby.

12.15 Entire Agreement

This Agreement is the entire agreement of the parties with respect to the subject matter hereof and supersedes all other prior agreements, understandings, statements, representations, and warranties, oral or written, express or implied,

between the parties hereto and their respective affiliates, representatives, and agents in respect of the subject matter hereof.

12.16 Delegation of Authority

Nothing in the Agreement shall be construed as delegating to the Network any of the powers or authority of the School, which are uot subject to delegation by the School under New York law.

12.17 Survival

All representations, warranties, and indemnities made herein shall survive termination of this Agreement.

In witness whereof, the Parties have caused this Agreement to be signed and delivered by their duly authorized representatives.

This Agreement contains a binding arbitration provision which may be enforced by the Parties.

Success Charter Network, Inc.

By: _____

Title: CEO, Success Charter Network

Date: 6/28/10

Bronx Success Academy Charter School I

By: _____

Title: Chairman

Date: 6-28-2010

7. Proposal History

(a) Community Outreach

Explain and provide evidence of the following:

- **the methods used to inform stakeholders in the intended community about the proposed charter school;**
- **the strategies used to solicit community input regarding the educational and programmatic needs of students and your proposal to meet those needs;**
- **the form and nature of feedback received from community stakeholders and the process for incorporating that feedback into the submitted proposal; and**
- **the extent to which community input regarding the educational and programmatic needs of students was incorporated into the application.**

The applicant and board of trustees of these proposed public charter schools have eagerly sought input from community leaders and parents in the community and plans to continuously solicit feedback. The applicant is using variety of methods to ensure the involvement of local stakeholders and opportunities to provide feedback on the proposed programming of the school.

All Success Charter Network (SCN) schools hold information sessions as part of the robust SCN student recruitment process each year. In order to present the key elements of the proposed public charter schools, Success Charter Network officials also attend community meetings to provide information to community members and solicit their feedback.

These community meetings were with Community Board 1, 2, and 3 of Brooklyn and the Community Education Councils for Districts 13 and 14 of Brooklyn. At these meetings, SCN officials discussed the schools' culture, mission, school district, target population, proposed grades, enrollment projections, and academic programming. At these meetings, there were opportunities for the community to provide comment on the proposal. Representatives from SCN responded to community questions about the school. A representative recorded notes from oral comments and also collected written comments from those who provided it. The Founding Group then reviewed the feedback. Individuals who could not attend these meetings were provided with contact information for Success Charter Network so that they could submit public comment.

The applicant has also reached out to elected officials who represent Districts 13 and 14. These elected officials include New York City Council Members, State Senators, Assembly members and Congressional representatives. In addition, the applicant has

reached out to the Community School District Superintendents as well as the presidents of the Community Education Councils and Community Boards of District 13 and 14.

Success Charter Network has already sent dated correspondence to elected officials, community organizations, community school district superintendents, Community Education Councils (CECs), and community boards informing them of our proposal to open three new public charter schools in Districts 13 and 14. These letters contained information about our charter application, school district, target population, proposed grades and enrollment, mission, description of academic program and the manner in which they can submit public comment.

Success Charter Network will also run advertisements in the local newspapers in Districts 13 and 14 both in print and online (where applicable). These advertisements will inform the community of our application, direct them to our website to learn more about our schools and provide them with contact information on how they can submit public comment.

The applicant has already secured significant community input prior to the submission of this proposal and will continue to solicit input as the application process proceeds. Success Charter Network collected more than 1,500 petition signatures for each proposed school from parents and community members in each school's respective district. Nearly 5,000 parents and community members support these new schools opening in their neighborhood.

Success Charter Network also has a strong track record of robust bilingual outreach, including knocking on doors and ensuring that everyone who wants to enter the lottery is informed. For the 2010-2011 school year, roughly 7,000 families applied to the Success Academy Charter Schools. The community has been voting with its feet and demanding better school options.

Comments Received:

Commenter highlighted that the school model seems like a great model, but wanted to know where exactly the school would be located. The commenter requested the specific location of the school.
Response: The commenter was informed that Success Charter Network is in the process of applying to open these new three proposed schools and that no space has been determined. The commenter was also informed that the applicants are required to submit the charter proposal before the Department of Education has assigned the space and therefore is unable to provide a specific location for the school.

Commenter stated that she has heard that charter schools do not service students with special needs. She requested information on how our Success Academies serviced this population.
Response: The commenter was informed that about 15% of scholars at Success Academies have special needs. The commenter was also informed that we have a

successful track record of servicing students with special needs.

Commenter highlighted that the curriculum seems very rigorous. The commenter requested information on how Success Charter Network developed our curriculum in particular science.
Response: The commenter was informed that Success Charter Network does visits to excellent schools around New York City and the country in order to ensure that our standards are very high. The commenter was informed that Success Charter Network visits high performing public, private, charter and parochial schools to inform our decisions about how we build or adapt our curriculum.

Commenter is a public school teacher and wanted to know, given the high percentage of Black and Latino students that attend our current schools, how Success Charter Network incorporated instruction about the cultural history of our students in to the curriculum.
Response: The commenter was informed that Success Charter Network understands the importance of promoting cultural awareness to the population of students that it services and that cultural awareness is reflected across all of our different curricular areas.

Commenter stated that they heard that our schools do not take English Language Learners. Commenter wanted to know how does Success Charter Network plan to recruit English Language Learners.
Response: The commenter was informed that the school's admission policy does, in fact, give preference to children who are English Language Learners. The commenter was also informed that Success Charter Network has a successful track record of servicing English Language Learners.

Commenter wanted to know how we plan to begin to build relationships with the community and sustain those relationships.
Response: The commenter was informed that Success Charter Network understand the importance our building strong relationships with the communities in which their schools are located. Success Charter Network emphasized that we hope that this meeting is the beginning of a strong relationship. It was also noted that Success Charter Network has a track record of building strong partnerships with community organizations that are located near the existing schools.

7. **Proposal History**

(b) Withdrawn or Rejected SUNY Proposals

Indicate whether this proposal was previously withdrawn from or rejected by the SUNY Trustees. If so, provide:

- **the name of the proposed charter school when previously submitted;**
- **the application cycle date of the previous submission;**
- **a summary of what has changed in the proposal since its previous submission and the reasons therefore.**

(c) Previous Submissions and/or Submissions to Other Authorizers

Indicate whether you have previously or currently have applied for a charter from a charter entity other than the SUNY Trustees. If so, provide:

- **the name of the charter entity;**
- **the name(s) of the proposed school(s) and the date(s) when the application(s) were submitted; and**
- **the status of those applications. If the application was denied by a charter entity other than the SUNY Trustees, provide a copy of the letter from the charter entity stating the reasons for denial. If the application was withdrawn from consideration, please provide the reasons for the withdrawal. If the application was granted, but the charter school is no longer in existence, please provide an explanation.**

This proposal has never been previously submitted to the SUNY Trustees and is not under consideration by any other charter entity.

8. Academic Program

(a) Key Design Elements

Provide a concise overview of the proposed charter school's key design elements, i.e., those aspects of the school critical to its success.

The members of the Board of Trustees of the school believe using Success Charter Network (SCN) as the management organization for this charter school would be most effective because of the Network's educational philosophies and programs. SCN has had the advantage of being able to examine more than 50 charter schools that have operated in New York City since 1998. It has studied the best practices of many of these schools, including KIPP Academies, Uncommon Schools, and Achievement First Schools, to select the elements that are most effective in educating students and preparing them to succeed in school, college, and life. It has also studied the practices of charter schools that have failed and have since ceased operations. Through a comparison of both successful and unsuccessful charter school models, SCN has been able to carefully select those elements that are most effective in helping schools produce impressive student achievement results while maintaining fiscal soundness.

While many schools endeavor to reduce the achievement gap between different groups of students, SCN schools instead focuses on preventing the gap from arising in the first place and providing all children with a phenomenal education. SCN works toward this goal in numerous ways, beginning with school design.

The Success Charter Network believes it is in a unique position to open and operate charter schools that will instigate an elimination of the achievement gap. After its successes at the Harlem Success Academy Charter Schools (HSA) and other Success Academies, SCN knows how to effectively design, implement, and support a charter school that produces impressive student achievement while maintaining fiscal soundness.

SCN has a strong central office team that supports its existing charter schools while simultaneously works to open and support this proposed charter school. This team opened the Harlem Success Academy Charter School in 2006, Harlem Success Academy Charter Schools 2-4 in 2008, Harlem Success Academy Charter Schools 5 and Bronx Success Academy Charter Schools 1 and 2 in 2010, and has secured approval from the Board of Regents to open Upper West Success Academy Charter School and Brooklyn Success Academy Charter School 1 in August 2011. Through the opening and operating of these schools, SCN has demonstrated it has the necessary experience and skill sets needed to successfully open and operate this school.

The schools where this program is currently in use provide the clearest examples of the success of the proposed school's instructional program. The existing schools managed by the Success Charter Network have shown impressive student achievement results in all areas. The first school to open, Harlem Success Academy Charter School 1 (HSA1), located in New York City Community School District 3, serves a population of which more than three-quarters are eligible for the federal Free and Reduced Price Lunch program. Despite being a Title I school, HSA1 has produced the highest scores in the city two years in a row. In its first year of state testing, 2008-2009, 95% of HSA1 students scored proficient or advanced in English and Language Arts, and 100% of students scored proficient or advanced in Math,

with more than 70% attaining the highest score possible. In the 2009-2010 year, despite the fact that the bar was raised twenty points in reading and thirty points in math, 97% of third graders and 93% fourth graders scored at least proficient on the math test, and 89% and 86% passed the ELA test, respectively. This earned the school the ranking of #1 public school in New York City and ranked it in the top 1% of schools statewide in third grade reading and math scores. Further, it outperformed its district of location (CSD 3) by 34 percentage points. HSA1 also outperformed the much wealthier districts that serve the Upper East Side of Manhattan by 15 points and Scarsdale, NY by six points. Other SCN schools will take state tests for the first time in the coming year, but internal assessments have demonstrated a trend that shows the program is likely to continue to produce similarly stellar results.

Success Charter Network School Design Elements

A. Focus on Student Achievement
- All staff members are continually self-assessing to ensure that their work is fostering student achievement.
- The goal is to prevent the achievement gap from arising in the first place.
- SCN schools focus on preparing students for success in college and the globally competitive economy they will enter.
- The ultimate goal for all students is college graduation.

B. Curriculum
- A research-based, results-driven curriculum is used.
- The curriculum includes and goes beyond New York State standards and Core Curriculum state Standards.

C. Student Performance Data
- Assessments are given quarterly in all core subjects.
- Assessment data is produced and analyzed in real time so that teachers and school leaders can augment instruction and provide extra tutoring to ensure all students are achieving at a high level.

D. More Instructional Time
- The school day runs from 7:45 a.m. until 4:00 p.m. (Kindergarten) and until 4:30 p.m. (Grade 1-4) or 5:30 p.m. (Grade 5) on Mondays, Tuesday, Thursdays, and Fridays and 7:45 a.m. until 2:00 p.m. on Wednesdays. (Teachers use Wednesday afternoons for professional development and collaboration; see Attachment 15 for more details. Struggling students may be asked to stay for supplemental assistance until 5:15 p.m.; see Attachment 13 for more details.)
- There are 180 days of instruction each year (please see Attachment 8(b) for more detail).
- Struggling students receive one-on-one and small group tutoring.
- High-performing students participate in enrichment activities.

E. School Leaders with the Power to Lead
- The Principal has the power to hire and fire staff.

- Non-instructional operations are handled by the school operations team and SCN, allowing the Principal and other instructional leaders to regularly observe teaching and focus solely on student achievement.

F. Highly-Qualified, Highly-Trained Staff
- Top-notch educators are recruited from around the country.
- Regular professional development is implemented to improve the instructional capacity of the staff.
- School leaders regularly observe, coach, and provide feedback to teachers to help improve their instruction.

G. Strong School Culture
- Students and staff are required to go above and beyond expectations in all circumstances.
- Excellent behavior is explicitly taught, modeled, expected, and rewarded.
- Values and good character are a part of daily instruction.
- There is an emphasis on college for all students.
- Principles of ACTION taught, modeled and constantly reinforced by all.
  - Agency: Students, parents, and all school personnel have a sense of ownership and personal responsibility.
  - Curiosity: Student exploration and curiosity drive instruction.
  - Try and Try: Students work hard – even if they do not succeed with their first attempt. They learn the importance of persistence.
  - Integrity: The value of honesty is consistently taught and modeled.
  - Others: Students are taught to have empathy and respect others.
  - No Shortcuts: There are no shortcuts to success. Hard work is mandatory.

H. Students with Disabilities: the services to be provided by the school may include, but are not limited to:
- Speech language pathology and audiologist services
- Psychological services
- Physical and occupational therapy
- Special education teacher support services
- Collaborative Team Teaching
- Early rehabilitation counseling

8. Academic Program

(b) Rationale and Supporting Research/Evidence

Explain how these elements specifically will allow the school to achieve its mission with the student population(s) it intends to serve and how the educational program will increase student achievement and decrease student achievement gaps, especially in English language arts and mathematics. Provide any research or examples of existing programs that support your claims.

While many schools endeavor to reduce the achievement gap between different groups of students, Success Charter Network (SCN) schools endeavor instead to prevent the gap from arising in the first place and to provide all children with a phenomenal education. SCN works toward this goal in numerous ways, beginning with school design. SCN schools have been designed incorporating the strongest design elements of the best public and private schools across New York and the country.

SCN has had the advantage of being able to examine the more than 50 charter schools that have operated in New York City since 1998 and hundreds of traditional public schools, parochial schools, and private schools. It has studied the best practices of many of these schools, including KIPP Academies, Uncommon Schools, and Achievement First Schools, as well as traditional public schools and private schools to select the elements that are most effective in educating students and preparing them to succeed in school, college, and life. It has also studied the practices of schools that have failed and since ceased operations. Through a comparison of both successful and unsuccessful charter schools, it has been able to carefully select those design elements that are most effective in helping schools realize impressive student achievement results while maintaining fiscal soundness.

Success Charter Network Academic Design Elements:

A. Focus on Student Achievement

- All staff members are continually focused on how their work is fostering student achievement. End of year goals are shared with instructional and non-instructional staff so that the entire school community can work together to support scholar success.
- The goal is to prevent the achievement gap from arising in the first place.
- SCN schools focus on preparing students for success in college and the globally competitive economy they will enter.
- The ultimate goal for all students is college graduation.

B. Curriculum

The educational focus and philosophy of all SCN schools is centered on the belief that all children can learn. All students can achieve at the highest levels - not just children who come to school from privileged backgrounds but everyone, regardless of initial school readiness. The Board of this school believes that all students deserve an education that will challenge, inspire, and prepare them for a better future. We also believe that our school can make the difference, not only to the children that will be served, but also to families and the

surrounding community. In fact, achievement scores at all of the schools with which SCN schools are co-located have improved since a Success Academy moved in.

The schools where this program is currently in use provide the clearest examples of the success of the proposed school's instructional program. The existing schools managed by the Success Charter Network have shown very impressive student achievement results in all areas. The first school to open, Harlem Success Academy Charter School (HSA1), located in New York City Community School District 3, serves a population of which approximately three-quarters are eligible for the federal Free and Reduced Price Lunch program. For two years in a row, the SCN school design has resulted in scores among the highest in the city, despite being a Title I school. In the first year of state testing, 2008-2009, 95% of students scored proficient or advanced in English and Language Arts, and 100% of students scored proficient or advanced in Math, with over 70% attaining the highest score possible. In the 2009-2010 year, despite the fact that the bar was raised twenty points in reading and thirty points in math, 97% of third graders and 93% fourth graders scored at least proficient on the math test, and 89% and 86% passed the ELA test, respectively. This earned the school the ranking of #1 public school in New York City and ranked it in the top 1% of schools statewide in third grade reading and math scores. Further, it outperformed its district of location (CSD 3) by 34 percentage points. HSA1 also outperformed the much wealthier districts that serve the Upper East Side of Manhattan by 15 points and Scarsdale, NY by six points. Other SCN schools will take state tests for the first time in the coming year, but internal assessments have demonstrated a trend that shows the program is likely to continue to produce similarly stellar results. The curriculum outlines below has enabled HSA1 and other SCN schools to be successful.

THINK Literacy

THINK Literacy is a framework that teaches scholars to become avid readers, elegant writers and critical thinkers. At the heart of THINK Literacy is Success Academies' deep belief that scholars become voracious readers and writers by reading and writing voluminously, and develop the ability to express their ideas clearly and articulately through many daily opportunities to think and talk about great books, their own experiences, and the world around them. The THINK framework provides a balance between modeled teacher reading and writing, teacher reading and writing with scholars, and independent reading and writing by scholars. Every day our scholars see excellent teacher models of reading and writing, read and write with teacher guidance and coaching, and put the pieces together during extended blocks of independent reading and writing.

THINK Literacy stands firmly on the premise that all children can learn to read and write. The balance between reading and writing allows scholars to receive the instruction needed in order to reach grade level status, while allowing scholars to work at a level that is not frustrating for them. Teachers use an integrated approach to teaching literacy that creates many opportunities for reading and writing on a daily basis. The THINK literacy program involves multiple components, including Writer's Workshop, Reader's Workshop, Guided Reading, Independent Reading, Interactive Writing, Shared Reading, Non-fiction study, and more.

THINK literacy includes, but is not limited to:

1. Reading Workshop: Reading Workshop consists of a Mini-Lesson with a clear teaching point followed by students reading independently with a purpose (scholars are reading at

their own independent levels); teachers instructing with individual students or in small groups and assessing student progress; students are reading at least 30 of the 50 minutes; students discuss texts in leveled partnerships or book clubs.

- To give scholars an opportunity to read and comprehend books at their independent level
- To build reading stamina
- To develop and strengthen comprehension skills, fluency, and decoding strategies

2. Interactive Read Aloud: Planned read aloud focusing on specific reading skills; includes teacher demonstration and student participation/discussion.

- To develop and deepen reading comprehension strategies
- To model fluent reading and other proficient reading behaviors
- To develop accountable talk
- To build vocabulary
- To support the writing workshop

3. Shared Reading: The teacher reads with scholars, ensuring all eyes are on the same text (poster, individual student copies, big book).

- To use one text throughout the week with the focus on a different aspect each day
- To work on reading comprehension, word work, fluency, and vocabulary

4. Independent Reading (whole class): Students read independently with a purpose (scholars are reading at their own independent levels); teachers instruct students and assess student progress.

- To give scholars an opportunity to read and comprehend books at their independent level
- To build reading stamina
- To develop and strengthen comprehension skills, fluency, and decoding strategies

5. Guided Reading (small group): Scholars are grouped fluidly according to their independent and instructional reading levels; each teacher gives a book introduction and then coaches and assesses scholars as they read. The teacher teaches one strategy to the group and may extend with word work. Based on the assessment, the teacher creates strategy groups and works with scholars on areas where they need more guidance.

- Can also be used to support scholars at their current independent reading level
- To support scholars as they progress to the next independent reading level

6. Word Study: Scholars will focus on spelling, phonics, vocabulary, and grammar.

- To teach conventions of written and oral language
- To focus on vocabulary development

7. Writing Workshop: Writing Workshop consists of a Mini-Lesson with a clear teaching point followed by independent student writing. Teachers instruct students individually or through small-group instruction while continuously assessing each student's growth and development. Students write for at least 25 of the 45 minutes of this period.

- To provide uninterrupted time for students to write about self-chosen topics
- To learn and practice correct usage of conventions

- To learn the craft of writing and transfer that skill across multiple genres
- To expose to scholars to different genres

8. Interactive Writing/Grammar: The students and the teacher compose a story together. Through this interactive instruction, students use their own whiteboards to write along and also contribute to the overall class story.

9. Non-Fiction Study: The non-fiction component of the THINK literacy program incorporates non-fiction texts into literacy units in grades K-4 and students read non-fiction texts as part of a separate class in grades 5-8. Students read non-fiction texts that correspond to other academic subjects, including social studies, science, and the arts.

SCN schools supplement THINK literacy with Success For All (SFA), a research-based and research-proven program that provides children with experiences that prepare them for success in the primary grades. Specifically, SCN schools use components of KinderCorner, an all day Kindergarten curriculum that fosters the development of children's language, literacy, and interpersonal skills.

SFA's Stepping Stones exposes children to phonics through letter-sound connections, blending, and segmenting. The KinderRoots Shared Stories provide a meaningful context to practice beginning reading skills. This literacy strand includes 19 colorful stories with decodable text. Classroom DVDs linked to the reading program create memorable images of vocabulary, sound/letter correspondences, sound blending, and reading. Throughout the enriched Kindergarten program, there is a focus on developing strong oral language skills, a love of reading, phonemic awareness, phonics, listening comprehension, and writing, which creates a solid foundation for reading and learning.

Starting in 1st grade, the school will use SFA's Reading Roots, a comprehensive program that targets the needs of beginning readers. Reading Roots is a research-based beginning reading program that has proven its effectiveness through randomized experimental research. It provides a strong base for successful reading by providing systematic phonics instruction supported by decodable stories, as well as instruction in fluency and comprehension. Reading Roots also fosters students' love of reading by providing rich literature experiences, extensive oral language development, and thematically focused writing instruction. These objectives are embedded in a fast-paced, engaging, and highly effective instructional process.

In accordance with the THINK literacy model, students are grouped by reading ability level beginning in the first grade. Retesting and regrouping occurs every eight weeks, allowing teachers the opportunity to work intensively with a group of 8-15 students who are all performing at approximately the same level, thus allowing the teacher to achieve dramatic gains with these students. Cooperative learning embedded throughout the program focuses on individual accountability, equal opportunity for success, and team recognition. Providing the opportunity to work with peers to meet specific learning goals enables scholars to master basic reading, writing, and mathematical skills as they continue to grow as thoughtful learners.

SCN Math

The Math curriculum at SCN schools provides students with the opportunity to develop theoretical, conceptual, and practical mathematical understandings.

TERC *Investigations in Number, Data, and Space* is a K-5 Mathematics curriculum aligned to New York State Standards that is designed to support children as they make sense of mathematical ideas. The *Investigations* program is used at SCN schools because it is based on extensive classroom-based field-testing on how children most effectively learn mathematics.

Investigations math offers students a chance to solve real world, contextualized mathematical problems using conceptual understanding and procedural and computational fluency. The program is centered on activity-based investigations, which encourage students to think creatively, develop their own problem-solving strategies, and work cooperatively. Students are consistently writing, drawing, and talking about math in order to deepen their understandings. Mathematics content includes the number system; addition, subtraction, multiplication, and division; collecting, sorting, and representing data; probability and statistics; measurement; changes over time; 2-D and 3-D geometry; fractions; computation and estimation strategies; and tables and graphs.

SCN schools supplement TERC *Investigations in Number, Data, and Space* with Cognitively Guided Instruction (CGI), a mathematical approach that requires students to use their own mathematical understandings to problem solve. CGI requires students to solve problems using their own mathematical strategies; these strategies are then shared with the entire class in order to advance all students' mathematical understandings.

SCN Science

Success Academy scholars take science five days a week beginning in kindergarten. By the end of kindergarten our scholars will have conducted 135 experiments. Students learn aerodynamics in first grade and robotics in fifth grade. SCN students love to ask questions and our schools capitalize on their natural curiosity with a hands-on approach. Our scholars conduct experiments and are encouraged to observe and ask questions about the world around them.

For too long science has taken a back seat to reading and mathematics in our country's schools. African American and Hispanic fourth grade students in New York City are approximately 2.5 years behind their white peers in science. Fourth grade students in New York City who qualify for free or reduced lunch are almost three years behind their peers who do not qualify for free or reduced lunch. Even worse, the National Assessment of Educational Progress found that only 3 percent of African American high school seniors were able to display anything more than partial mastery of the "knowledge and skills that are fundamental for proficient work" in the sciences.[1] These students are given high school diplomas without the skills necessary to secure high-paying jobs in science-related fields. SCN is determined to reverse this trend by providing students with a solid foundation so that they can excel in science classes in middle and high school. The SCN curriculum ensures that all students receive discovery-based experimental science instruction five days a week beginning in kindergarten.

[1] Science statistics come from the National Assessment of Educational Progress, 2005.

Social Studies/Geography
It is critically important that students comprehend the world around them, their history, and the history of other cultures. The SCN social studies curriculum allows students to master key concepts and vocabulary, geography, and cause and effect relationships. It also allows students the opportunity to develop their non-fiction reading skills and take part in relevant field studies where they can learn first-hand about cultures and communities.

Specials and Enrichment at SCN
In addition to a rich and rigorous academic curriculum, SCN schools have a carefully designed and robust program that includes a selection of art, dance, music, chess, theater, sports, and discovery oriented science five days a week. The applicants believe that this is a critical part of SCN's strategy to prevent the achievement gap. Children need to be highly engaged in school in order to become great writers and great scholars. This is why Success Academy scholars go on numerous "field studies" as well as using the THINK Literacy and TERC-Investigations math curriculum. This serves not only to remediate but also to prepare children to be strong in writing, reading, and critical thinking.

C. Student Performance Data
Monitoring student progress will be an ongoing activity in all classrooms. A variety of tools will be used to monitor student progress, some formal and others more informal. Data will be used to guide teachers as they make instructional decisions and inform school leaders as they plan for interventions for groups and individual children each day.

School leaders, the Director of Literacy, the Director of Instruction, and the Instructional Development team use this data to adjust materials and lessons as needed. The frequent collaboration and input from teachers and leaders also influences professional development topics, which are constantly being reviewed and re-prioritized in order to meet teacher and student needs.

The success of the school will be continuously under examination. SCN's design element of student performance data allows the school leadership to regularly examine, assess, and improve the effectiveness of the curriculum and the instruction. The regular eight-week reading and monthly math assessments, as well as other nationally normed assessments will provide value-added data throughout the year to be used longitudinally over multiple years. The Fountas and Pinnel (F&P) assessment or similar assessment will be used quarterly for formal assessment of reading progress. The school will hold data reviews at least every quarter as well as student assessment meetings to assess student progress, effectiveness of curriculum materials and to make changes that ensure students reach New York State Standards, Core Curriculum State Standards and school end of year goals. Additionally, the New York State and City mandated assessments will provide student performance data that will be used to determine if students are mastering and going beyond the state standards and, hence, whether or not the school is a success.

The Success Charter Network promulgates specific protocols for how schools collect, distribute, and analyze data. These protocols work to help teachers and school leaders freely access information in real-time. In a fast-paced and constantly changing school environment, having data at one's fingertips empowers the staff to better decide how to expend time and resources so as to maximize student achievement. In order to maximize classroom time, SCN also constantly seeks out more efficient ways to raise student test scores by carefully

examining high-stakes tests like the New York State English Language Arts Test. Dissecting these tests helps the Instructional Development team determine how best to quickly teach students what they need to know to excel on these tests, giving the teachers more time to focus on teaching those skills and transcending the binary math-reading school day.

The process by which SCN schools collect data plays an important role in how this school will handle data. SCN will equip the school with a centralized database and each teacher with his or her own laptop. A data director at SCN will work with school leaders and design templates on the database through which teachers will individually enter student scores. Teachers will be expected to enter student test scores by the end of the school day. All data will feed to the central database so that a data manager at the school level can monitor. Once all information has been uploaded, the manager can then transmit it to SCN for the director who will oversee the process. This system gives certain advantages:

- It gives teachers closer familiarity with their students' performance since teachers are responsible for entering students' scores electronically.
- Decisions about instructional modifications can be made quickly so as to improve teaching and learning.
- It allows administrators to easily monitor and troubleshoot.
- It gives SCN both an overall snapshot of school performance and the ability to hone in on specific problem areas.

This data distribution process will allow teachers and school leadership to make informed decisions quickly and collaboratively. The database, as currently utilized at the existing SCN schools, can produce automatic printouts of student reports, class reports, and student growth indicators over time. As data is collected, the instructional team gains statistical information on all students, teachers, and schools. In addition, for each test, the data collection lists skills and subskills tested on each question, which gives teachers and school leaders a line-by-line breakdown of student performance. Teachers administer monthly math assessments and a reading assessment once every eight weeks. These tests are identical for all classes grade-wide, allowing teachers to share ideas and compare results. The frequency of these tests gives volumes of data and an ongoing overview of how students are doing. In addition, all student data is accessible to all administrators and teachers. This free circulation of data reinforces the collaborative culture.

Not only does tracking internal assessments allow the school to gauge student growth, but tracking data also itemizes external high-stakes assessments and gives a clearer sense of how the school stacks up against other schools. For this reason, school leaders look carefully at high-stakes tests. During baseline assessments, teachers learn the areas in which their students already excel and in what areas the students require targeted support. The curriculum is then reinforced and modified to fill these gaps. Looking at this data also helps teachers ramp up test-taking strategies that will help students score higher. Though some might criticize this approach as "teaching to the test," this approach actually achieves the exact opposite effect. By obtaining detailed and nuanced information about the test, teachers can more effectively use any time they use "teaching to the test," thus freeing up precious school hours for lessons their students find more engaging and rewarding. When students do not reach academic goals, teachers pre-teach, re-teach, teach in small groups, and can recommend students for individual tutoring.

D. More Instructional Time

- The school day runs from 7:45 a.m. until 4:00 p.m. (Kindergarten), until 4:30 p.m. (Grades 1 through 4) or until 5:30 p.m. (Grades 5 and up) on Mondays, Tuesday, Thursdays, and Fridays and 7:45 a.m. until 2:00 p.m. on Wednesdays. (Teachers use Wednesday afternoons for professional development and collaboration; see Attachment 15 for more details. Struggling students may be asked to stay for supplemental assistance until 5:00 p.m.; see Attachment 13 for more details.)
- There are 180 days of instruction each year.
- Struggling students receive one-on-one and small group tutoring.
- High-performing students participate in enrichment activities.

Success Charter Network schools have extended school days. A typical Department of Education (DOE) school day is 6.5 hours (5 hours for academic subjects, with additional time designated for lunch, recess, etc.); using this model SCN schools would have approximately 227 DOE school days. This results in approximately 23% more instructional time at the proposed school as at neighboring zone public schools.

The additional time (roughly 300 extra hours per school year) gives students the opportunity to engage in a rich and rigorous academic curriculum that includes a selection of art, dance, music, chess, theater, sports, and discovery oriented science five days a week. The applicants believe that this is a critical part of SCN's strategy to prevent the achievement gap. Children need to be highly engaged in school in order to become great writers and great scholars.

E. School Leaders with the Power to Lead

The principal has the power to hire and fire staff. Non-instructional operations are managed by the Business Manager and handled by the school operations team and SCN. Shifting the administrative burden away from the principal allows the principal and other instructional leaders to regularly observe teaching and focus solely on student achievement.

F. Highly-Qualified, Highly-Trained Staff

The Success Charter Network has an extensive recruitment and interview process to ensure its schools have talented staff members who are dedicated to the school's mission and its students' success. Therefore, staff members are expected to do much more than just teach. They are expected to help develop and implement the school model.

Success Charter Network schools are set up as collaborative environments. While the principal has the power and skill to make tough decisions and lead the team, teacher input and leadership is expected at all levels of decision making. Teachers are not expected to be passive employees accepting management decisions. They are invested in the school and its students, so they are given the opportunity to participate in shared reflection, problem solving, and planning with school leadership.

The school will afford qualified teachers, school administrators, and other school personnel the opportunity to work within an educational community that values collaboration between students and teachers in the construction of knowledge for the group and understanding for the individual. The school will also offer teachers an opportunity to work in a school setting that values process and results, individual accountability and group achievement; subject-area excellence and cross-curricular instruction.

The school will also offer its teachers and administrators extensive and ongoing professional development that will enrich the school culture and develop the school's rigorous academic program.

The school will design its schedule to:

- allow teachers time to plan educational opportunities (please refer to Attachment 9 for detailed schedules);
- facilitate both teacher/student and peer mentoring; and
- provide students with targeted small group and individual tutoring.

G. Strong School Culture

- Students and staff are required to go above and beyond expectations in all circumstances.
- Excellent behavior is explicitly taught, modeled, expected, and rewarded.
- Values and good character are a part of daily instruction.
- There is an emphasis on college for all students.
- Principles of ACTION taught and modeled and constantly reinforced by all.
    - Agency: Students, parents, and all school personnel have a sense of ownership and personal responsibility.
    - Curiosity: Student exploration and curiosity drive instruction.
    - Try and Try: Students work hard – even if they do not succeed with their first attempt. They learn the importance of persistence.
    - Integrity: The value of honesty is consistently taught and modeled.
    - Others: Students are taught to have empathy and respect others.
    - No Shortcuts: There are no shortcuts to success. Hard work is mandatory.

H. Students with Disabilities

The services to be provided by the school may include, but are not limited to:

- Speech language pathology and audiologist services
- Psychological services
- Physical and occupational therapy
- Special education teacher support services
- Collaborative Team Teaching
- Early rehabilitation counseling

8. Academic Program

(c) Statutory Purpose

Explain how the school is likely to materially further one or more of the following purposes of the Charter Schools Act (Education Law § 2850(2)):

- **Improve student learning and achievement;**
- **Increase learning opportunities for all students, with special emphasis on expanded learning experiences for students who are at-risk of academic failure;**
- **Encourage the use of different and innovative teaching methods;**
- **Create new professional opportunities for teachers, school administrators and other school personnel;**
- **Provide parents and students with expanded choices in the types of educational opportunities that are available within the public school system; and**
- **Provide schools with a method to change from rule-based to performance-based accountability systems by holding the schools established under this article accountable for meeting measurable student achievement results.**

In addition to implementing the rich curriculum of New York State, the proposed school will augment the curriculum with a comprehensive education program that includes THINK literacy with components of the Success for All education program, and a rigorous math curriculum, all of which fully align with state standards. The Success Charter Network, with the help of the Instructional Development staff, Director of Literacy, Director of Instruction and other instructional experts, has created a program that combines many of the best practices identified by curriculum designers and pedagogical researchers. First and foremost, these program design elements will provide students with the literacy skills they will need to succeed throughout their lives.

THINK Literacy

THINK Literacy is a framework that teaches scholars to become avid readers, elegant writers and critical thinkers. At the heart of THINK Literacy is Success Academies' deep belief that scholars become voracious readers and writers by reading and writing voluminously, and develop the ability to express their ideas clearly and articulately through many daily opportunities to think and talk about great books, their own experiences, and the world around them. The THINK framework provides a balance between modeled teacher reading and writing, teacher reading and writing with scholars, and independent reading and writing by scholars. Each and every day our scholars see excellent teacher models of reading and writing, read and write with teacher guidance and coaching, and put the pieces together during extended blocks of independent reading and writing.

THINK Literacy stands firmly on the premise that all students can learn to read and write. The balance between reading and writing allows students to receive the instruction needed in order to reach grade level status, while allowing students to work at a level that is not frustrating for them. Teachers use an integrated approach to teaching literacy that creates many opportunities for reading and writing on a daily basis. The THINK literacy program involves multiple components, including Writer's Workshop, Reader's Workshop, Guided Reading, Independent Reading, Interactive Writing, Shared Reading, Non-fiction study, and more.

THINK literacy includes, but is not limited to:
1. Reading Workshop: Reading Workshop consists of a Mini-Lesson with a clear teaching point followed by students reading independently with a purpose (scholars are reading at their own independent levels); teachers instructing with individual students or in small groups and assessing student progress; students are reading at least 30 of the 50 minutes; students discuss texts in leveled partnerships or book clubs.

- To give scholars an opportunity to read and comprehend books at their independent level
- To build reading stamina
- To develop and strengthen comprehension skills, fluency, and decoding strategies

2. Interactive Read Aloud: Planned read aloud focusing on specific reading skills; includes teacher demonstration and student participation/discussion.

- To develop and deepen reading comprehension strategies
- To model fluent reading and other proficient reading behaviors
- To develop accountable talk
- To build vocabulary
- To support the writing workshop

3. Shared Reading: The teacher reads with scholars, ensuring all eyes are on the same text (poster, individual student copies, big book).

- To use one text throughout the week with the focus on a different aspect each day
- To work on reading comprehension, word work, fluency, and vocabulary

4. Independent Reading (whole class): Students read independently with a purpose (scholars are reading at their own independent levels); teachers instruct students and assess student progress.

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- Can also be used to support scholars at their current independent reading level

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- To provide uninterrupted time for students to write about self-chosen topics
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8. Interactive Writing/Grammar: The students and the teacher compose a story together. Through this interactive instruction, students use their own whiteboards to write along and also contribute to the overall class story.

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SCN Math

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Student Support Team The Student Support Team coordinates community, family, and school resources to ensure motivated, healthy, well-cared for students who enthusiastically focus all of their energy on learning. The Student Support Team's school-based members (teachers, administrators, and staff) work hand-in-hand with other school staff, families, and community members to increase attendance, deepen family involvement, and add resources to prevent and solve problems leading to poor achievement. The Student Support Team is designed to focus on those children who are not succeeding despite program interventions—those children who are falling through the cracks. Their problems may be due to academic, behavioral, social, health, or attendance issues. The Student Support Team will work to ensure success for every child. It will accomplish this through positive, solution-focused collaboration between educators, families, and community members.

This broad-based programming focuses on four major target areas:

- Attendance
- School-Based Intervention
- Family Involvement
- Service Integration

[1] Science statistics come from the National Assessment of Educational Progress, 2005.

The Student Support Team helps to meet the requirements of No Child Left Behind. In meeting the requirements of NCLB, the Student Support Team will help the school address important targeted areas:

- Developing targeted prevention and intervention plans for special populations.
- Establishing clear mechanisms to achieve high attendance rates.
- Demonstrating clear procedures for building successful plans for students before they reach the special education referral stage.
- Building positive and productive partnerships with families and community members.

One of the tools that will be used to promote parental collaboration and interactions will be a Commitment Contract. Parents and students will be encouraged to pledge their commitment by attending school, being on time, doing their schoolwork and supporting one another.

Improve Student Learning and Achievement

The educational program will improve student learning and achievement by using a rigorous and comprehensive academic program; making effective and additional use of time on a daily and annual basis; and holding school leadership and faculty accountable for student academic performance. Teachers will also be coached on how to use data to inform instructional decisions that will improve student achievement.

The students that will be served by the school require a broad range of services to improve their learning. The academic program created by the Instructional Development Team, Director of Literacy, and other instructional experts will address many of these needs. This program will engage students in learning, encourage the formation of a supportive and collaborative educational community; and support the development of the school with research-based instruction to raise student academic achievement. Additional academic services are often needed to remedy learning deficits that have accumulated over time. The SCN curriculum is designed to overcome academic barriers, make curriculum and instruction relevant, and to raise expectations for children who are not performing at grade level.

For example, in the beginning of each school year the school leadership team, Success Charter Network, will set an achievement plan with rigorous academic goals. Each quarter, the school will develop an assessment report that will assist teachers and administrators in assessing student progress. The plan will not be static and will be revised during the course of the year as teachers and administrators track student achievement. Monitoring student progress will be an ongoing activity in all classrooms. A variety of tools will be used to monitor student progress, some formal and others more informal. Informal measures will include daily classroom observations by teachers, and classroom observations by school leaders. Data will be used to guide teachers as they make instructional decisions and school leaders as they plan for interventions for groups and individual children each day. Effective and meaningful monitoring will involve:

- Identifying the starting point
- Tracking growth throughout the quarter
- Assessing end-of-quarter growth
- Using data to inform instruction and to motivate staff and students

Success Charter Network, the school leadership team and instructional development staff will guide leaders and teachers in setting goals for progress and in identifying students for targeted interventions.

In addition, the school will work to ensure that the students, staff and administrators, know and understand their community. Through the Student Support Team, the school will create connections with the community. The school will also implement high learning and behavioral expectations of students that will create a positive school culture of discipline and achievement, which in turn will lead to higher student academic performance.

Method of Change

The school's commitment to performance-based accountability is inherent in its emphasis on the New York State learning standards and Core Curriculum State Standards as well as its incorporation of THINK literacy, the Success for All program, and a rigorous math program into its curriculum.

The school will:

- Be accountable to New York State Standards
- Use an augmented version of SFA programming to engage student learning;
- Administer standardized examinations at each grade level to track cohort performance in relation to the New York State standards;
- Base employment decisions on teacher merit;
- Be subject to direct oversight by the Charter Schools Institute

Expanded Choice

The proposed school, in addition to the rest of SCN's schools, will be the only school in the country to use THINK literacy and one of two schools in New York City to use an augmented version of the Success for All program. Thus, the school will offer a valuable alternative to the currently available options within New York City by emphasizing:

- Reading and writing across the curriculum;
- Interdisciplinary programming;
- Technology integration;
- Outreach to community resources; and
- A longer school day and school year.

Innovative Teaching Methods

By implementing a curriculum that combines THINK literacy, an augmented version of the SFA program, and a rigorous math program, the school will use innovative teaching methods that go beyond what is currently done in New York City schools. Within the curriculum of the Success Charter Network, active pedagogy is measured by the following benchmarks:

- Teaching reading and writing across the curriculum.
    - THINK literacy fosters the integration of reading and writing across the curriculum, requiring students to read and write both formally and informally to express their understanding in a variety of disciplines, not just in English Language Arts classrooms.
- Use of Effective Assessment
    - Regular and frequent use of assessment data from multiple measures is used for instructional decision making so that preventative measures can be

implemented immediately and assessed systematically
    - Students are not assessed solely through high-stakes standardized testing. Assessments of student progress are holistic and frequent and include multiple measures, ranging from reflection on and critique of student work, fluency checks, the quality of discussion, to standardized test performance.
- Flexible regrouping and acceleration of students for reading class according to instructional levels.
    - Students are informally assessed in reading, writing, and mathematics on a daily basis in order to ensure that all scholars are constantly growing academically and that they are being met with rigorous academic challenges.
    - Every 8 weeks, students are formally assessed and promoted to the next instructional reading level if they are ready, thus placing children according to their reading performance, not grade or age.
- Slavin cooperative learning model
    - There are group goals with individual accountability, i.e. students work in teams who are rewarded for their members' success. At the same time, each member of the team is individually accountable for learning the material at hand. No matter what the academic level of the student, each child is challenged to do his or her best, and the contributions of all team members are equally valued. Cooperative learning is one of the most powerful tools teachers have in providing the level of engagement and academic and social support their students need to be successful. In the cooperative learning classroom, all students benefit from the constant coaching, encouragement, and feedback of their peers. And since more of the responsibility for learning rests on students and teams, teachers are able to spend more time working with individuals and small groups of learners, doing the kind of teaching that originally drew teachers into the field of education.
- Success Charter Network's 8 Keys to Classroom Management provide teachers with a framework for classroom management.
    1. Identify yourself as the authority in the classroom
    2. Decide on what you do expect
    3. Develop Meaningful Routines
    4. Establish Rules, Rewards, & Consequences
    5. Sweat the Small Stuff - Consistently
    6. Teach Like Your Hair's on Fire
    7. Build Relationships
    8. Instruct, Inspire & Instill ACTION Values

Professional Opportunities

The school will afford qualified teachers, school administrators, and other school personnel the opportunity to work within an educational community that values collaboration between students and teachers in the construction of knowledge for the group and understanding for the individual. The school will also offer teachers an opportunity to work in a school setting that values process and results, individual accountability and group achievement; subject-area excellence and cross-curricular instruction.

The school will also offer its teachers and administrators extensive and ongoing professional development that will enrich the school culture and develop the school's rigorous academic program.

The school will design its schedule to:

- Allow teachers time to plan educational opportunities (please refer to Attachment 9 for detailed schedules);
- Facilitate both teacher/student and peer mentoring; and
- Provide students with targeted small group and individual tutoring.

9. Calendar and Schedules

(a) School Calendar

Provide a copy of the proposed school's calendar for its first year of operation, including:

- **total number of days of instruction for the school year;**
- **first and last day of classes;**
- **organization of the school year (i.e. semesters, trimesters, quarters, etc.), especially important for schools that will ultimately include 9th through 12th grades;**
- **all planned holidays and other days off, as well as planned half days; and**
- **dates for summer school, if planned.**

The school will have approximately 180 instructional days running from August through June. The school year will also contain approximately 8 staff professional development days in addition to about four weeks of summer orientation and training for faculty and staff. The school's academic calendar will likely be organized into two semesters but will provide quarterly progress reports to keep families informed about scholars' progress. The proposed school calendar follows. Since the school will not use New York City Department of Education transportation services, the differences between this school's calendar and the NYC Department of Education calendar do not create a burden for families.

2012

Wed. August 15: School session begins for Kindergarten (half-day)

Thu. August 16-Fri. August 17: Half-days for Kindergarten

Mon. August 20: School session begins for all other grades

Mon. September 3: Labor Day Holiday (no classes)

Mon. September 17-Tue. September 18: Rosh Hashanah (no classes)

Wed. September 26: Yom Kippur (no classes)

Mon. October 1: Professional Development Day (no classes)

Mon. October 8: Columbus Day (no classes)

Fri. October 26: Professional Development Day (no classes)

Thu. November 15: Professional Development Day (no classes)

Wed. November 21—Fri. November 23: Thanksgiving Recess (no classes)

Mon. December 24—Tue. January 1: Winter Recess (no classes)

2013

Wed. January 2: School resumes

Mon. January 21: Martin Luther King Holiday (no classes)

Mon. February 18—Tue. February 19: Midwinter Recess (President's Day)

Wed. February 20: Professional Development Day (no classes)

Mon. March 25—Fri. March 29: Spring Recess

Mon. April 1: School resumes

Wed. April 10: Professional Development Day (no classes)

Tue. May 21—Wed. May 22: No classes— Professional Development Day

Mon. May 27: Memorial Day (no classes)

Thu. June 6: Last day of Session for Students

Mon. June 24 – Fri. July 12: Summer Opportunity Academy Session #1 (selected students)

Mon. July 22 – Fri. August 9: Summer Opportunity Academy Session #2 (selected students)

(b) School Schedules

Provide and explain sample school schedules for a typical week of instruction, including:

- **sample weekly schedule for teachers; and**
- **sample weekly schedule for students.**

Your narrative should include:

- **length of the school day (including the approximate start and dismissal times of the school day);**
- **for schools that will ultimately include all or select grades within the kindergarten through 8th grade range, the minimum number of hours the school will devote to core academic subjects in each grade, i.e., English language arts, mathematics, science, and social studies, and the total number of hours/minutes of instruction per week (exclusive of lunch, recess, study hall, etc.); and**
- **for schools that will ultimately include 9th through 12th grades (or select grades within that range), the course structure(s) that will**

allow students to fulfill high school graduation requirements established by the Board of Regents.

Weekly Schedule

Success Charter Network schools have extended school days. A typical Department of Education (DOE) school day is 6.5 hours (5 hours for academic subjects, in addition to time for lunch, recess, etc.); using this model SCN schools would have approximately 227 DOE school days, or about 23% more instructional time than in neighboring zone schools.

The additional time (roughly 300 extra hours per school year) gives students the opportunity to engage in a rich and rigorous academic curriculum that includes a selection of art, dance, music, chess, theater, sports, and discovery oriented science five days a week. The applicants believe that this is a critical part of SCN's strategy to prevent the achievement gap. Children need to be highly engaged in school in order to become great writers, thinkers, and scholars. This is why Success Academy scholars go on numerous "field studies" as well as using the THINK Literacy and TERC-Investigations math curriculum. This serves not only to remediate but also to prepare children to be strong in writing, reading, and critical thinking.

Kindergarten

The school day will begin each morning at 7:45 a.m. and will end at 4:00 p.m. on Mondays, Tuesdays, Thursdays, Fridays, and at 2:00 p.m. on Wednesdays. Each week will have approximately 700 minutes devoted to English/language arts, approximately 400 minutes devoted to mathematics, approximately 250 minutes devoted to science, and approximately 100 minutes devoted to social studies. Please see the following sample schedules.

Grades 1 - 5

The school day will begin each morning at 7:45 a.m. and will end at 4:30 p.m. on Mondays, Tuesdays, Thursdays, Fridays, and at 2:00 p.m. on Wednesday. 5th grade will go until 5:30pm on Monday, Tuesday, Thursday, and Fridays. Each week will have approximately 900 minutes devoted to English/language arts, approximately 400 minutes devoted to mathematics, approximately 250 minutes devoted to science, and approximately 100 minutes devoted to social studies. Please see the following sample schedules.

While this may seem like a long day for young children, the SCN schools have found that children are able to spend this much time at school learning if students are fully engaged. In kindergarten, the first two weeks of school will have a shortened schedule so that children are eased into the longer school day. After these first two weeks, the schools found that students easily adjusted to the length of the school day.

Kindergarten Daily Sample Schedule: Scholar, Lead Teacher (LT), and Associate Teacher (AT)

Time	Daily Schedule	Time Allotted	L.T. Responsibilities	A.T. Responsibilities
7:45-7:50	Greet Class in Cafeteria/ Transition from Breakfast	5 min	Picks up class , transitions class from cafeteria to classroom	Assists with arrival in cafeteria or hallways (may include assisting with late arrival)
7:50-8:15	Morning Meeting	25 min	Monitors students / pulls GR group	Takes attendance; begins HW check; makes follow-up phone calls
8:15-8:40	SFA: Stepping Stones	25 min	Leads Stepping Stones group	Leads Stepping Stones group
8:40-8:55	Math Facts/Transition	15 min	Leads instruction	Pushes in / co-teaches
8:55-9:40	Math	45 min	Leads instruction	Pushes in / co-teaches
9:40-9:55	Shared Text/Transition	15 min	Leads Instruction	Monitors/supports *(or GR in another class if times are staggered)*
9:55-10:30	Science/Transition	35 min	Planning & preparation time	Planning & preparation time
10:30-11:05	Social Studies/Transition	35 min	Planning & preparation time	Planning & preparation time
11:05-11:30	Lunch/Transition	25 min	Teacher Lunch	Lunch Duty
11:35-12:00	Recess	25 min	Planning & preparation time	Teacher Lunch
12:00-12:05	Transition	5 min	Planning & preparation time	Teacher Lunch
12:05-12:30	Interactive Read Aloud and Whole Class Conversation	25 min	Leads instruction	Monitors/supports *(or GR in another class if times are staggered)*
12:30-12:55	Problem Solving	25 min	Leads Instruction	Teacher Lunch
12:55-1:05	Snack/Transition	10 min	Assists with snack	Assists with snack
1:05-1:50	Writing Workshop	45 min	Leads instruction	Monitors/supports *(or GR in another class if times are staggered)*
1:50-2:40	Reading Workshop	50 min	Pulls small groups	Pulls small groups
2:40-3:45	Learning Lab/Transition	65 min	Works with small groups	Leads instruction/works with small groups
3:45-4:00	Pack Up/Dismissal	15 min	Assists with dismissal	Assists with dismissal
4:00-4:10	Dismissal	10 min	Dismiss students to parents; bring students up for LP at 4:10	Assist with Upstairs Dismissal / Late Pick-Up

Kindergarten Weekly Sample Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7:45-7:50	Greet Class in Cafeteria/ Transition from Breakfast	Greet Class in Cafeteria/ Transition from Breakfast	Greet Class in Cafeteria/ Transition from Breakfast	Greet Class in Cafeteria/ Transition from Breakfast	Greet Class in Cafeteria/ Transition from Breakfast
7:50-8:15	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting
8:15-8:40	SFA: Stepping Stones	SFA: Stepping Stones	SFA: Stepping Stones	SFA: Stepping Stones	SFA: Stepping Stones
8:40-8:55	Math Facts/Transition	Math Facts/Transition	Math Facts/Transition	Math Facts/Transition	Math Facts/Transition
8:55-9:40	Math	Math	Math	Math	Math
9:40-9:55	Shared Text/Transition	Shared Text/Transition	Reading Workshop	Shared Text/Transition	Shared Text/Transition
9:55-10:30	Science/Transition	Science/Transition		Science/Transition	Science/Transition
10:30-11:05	Social Studies/Transition	Special/Transition	Science/Transition	Social Studies/Transition	Special/Transition
11:05-11:30	Lunch/Transition	Lunch/Transition	Lunch/Transition	Lunch/Transition	Lunch/Transition
11:35-12:00	Recess	Recess	Recess	Recess	Recess
12:00-12:05	Transition	Transition	Transition	Transition	Transition
12:05-12:30	Interactive Read Aloud and Whole Class Conversation	Interactive Read Aloud and Whole Class Conversation	Interactive Read Aloud and Whole Class Conversation	Interactive Read Aloud and Whole Class Conversation	Interactive Read Aloud and Whole Class Conversation
12:30-12:55	Problem Solving	Problem Solving	Problem Solving	Problem Solving	Problem Solving
12:55-1:05	Snack/Transition	Snack/Transition	Snack/Transition	Snack/Transition	Snack/Transition
1:05-1:50	Writing Workshop	Writing Workshop	Writing Workshop	Writing Workshop	Writing Workshop
1:50-2:40	Reading Workshop	Reading Workshop	Professional Development	Reading Workshop	Reading Workshop
2:40-3:45	Learning Lab/Transition	Learning Lab/Transition	Professional Development	Learning Lab/Transition	Learning Lab/Transition
3:45-4:00	Pack Up/Dismissal	Pack Up/Dismissal	Professional Development	Pack Up/Dismissal	Pack Up/Dismissal
4:00-4:10	Dismissal	Dismissal	Professional Development	Dismissal	Dismissal

Grade 1 – 4 Sample Schedule: Scholar, Lead Teacher (LT), and Associate Teacher (AT)

Time	Daily Schedule	Time Allotted	L.T. Responsibilities	A.T. Responsibilities
7:45-7:50	Transition from Breakfast	5 min	Transitions class from cafeteria to classroom	Assists with arrival in cafeteria or hallways (may include assisting with late arrival)
7:50-8:10	Morning Meeting	20 min	Monitors students / pulls GR group	Takes attendance; begins HW check; makes follow-up phone calls
8:10-9:15	SFA: Reading Roots	65 min	Leads Reading Roots Group	Leads Reading Roots Group
9:15-9:25	Math Facts/Transition	10 min	Leads instruction	Pushes in / co-teaches
9:25-10:15	Math Workshop	50 min	Leads instruction	Pushes in / co-teaches
10:15-10:25	Snack/Transition	10 min	Assists with snack	Assists with snack
10:25-10:55	Problem Solving/Transition	30 min	Leads Instruction	Pushes in / co-teaches
10:55-11:50	Science/Transition	55 min	Leads Instruction	Pushes in / co-teaches
11:50-12:15	Lunch/Transition	25 min	Teacher Lunch	Lunch Duty
12:15-12:45	Recess/ Transition	20 min	Planning & preparation time	Teacher Lunch
12:45-12:55	Spelling	10 min	Leads instruction	Monitors/supports
12:55-1:55	Writing Workshop	60 min	Leads instruction	Monitors/supports
1:55-2:50	Social Studies/Transition	55 min	Leads instruction	Monitors/supports
2:50-3:50	Reading Workshop	60 min	Pulls small groups	Pulls small groups
3:50-4:15	Read Aloud and Whole Class Conversation	25 min	Leads instruction	Monitors/supports *(or GR in another class if times are staggered)*
4:15-4:30	Shared Text	15 min	Leads Instruction	Monitors/supports *(or GR in another class if times are staggered)*
4:30-4:35	Dismissal	5 min	Dismiss students to parents; bring students up for LP at 4:10	Assist with Upstairs Dismissal / Late Pick-Up

Grade 1 – 4 Weekly Sample Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7:45-7:50	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast
7:50-8:10	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting	Morning Meeting
8:10-9:15	SFA: Reading Roots	SFA: Reading Roots	SFA: Reading Roots	SFA: Reading Roots	SFA: Reading Roots
9:15-9:25	Math Facts/Transition	Math Facts/Transition	Reading Workshop	Math Facts/Transition	Math Facts/Transition
9:25-10:15	Math Workshop	Math Workshop		Math Workshop	Math Workshop
10:15-10:25	Snack/Transition	Snack/Transition	Math Workshop	Snack/Transition	Snack/Transition
10:25-10:55	Problem Solving/Transition	Problem Solving/Transition		Problem Solving/Transition	Problem Solving/Transition
10:55-11:50	Science/Transition	Science/Transition	Science/Transition	Science/Transition	Science/Transition
11:50-12:15	Lunch/Transition	Lunch/Transition	Lunch/Transition	Lunch/Transition	Lunch/Transition
12:15-12:45	Recess/ Transition	Recess/ Transition	Recess/ Transition	Recess/ Transition	Recess/ Transition
12:45-12:55	Spelling	Spelling	Writing Workshop/ Dismissal	Spelling	Spelling
12:55-1:55	Writing Workshop	Writing Workshop		Writing Workshop	Writing Workshop
1:55-2:50	Special/Transition	Social Studies/Transition	Professional Development	Special/Transition	Social Studies/Transition
2:50-3:50	Reading Workshop	Reading Workshop	Professional Development	Reading Workshop	Reading Workshop
3:50-4:15	Read Aloud and Whole Class Conversation	Read Aloud and Whole Class Conversation	Professional Development	Read Aloud and Whole Class Conversation	Read Aloud and Whole Class Conversation
4:15-4:30	Shared Text	Shared Text	Professional Development	Shared Text	Shared Text
4:30-4:35	Dismissal	Dismissal	Professional Development	Dismissal	Dismissal

Grade 5 Weekly Sample Schedule

Time	Monday	Tuesday	Wednesday	Thursday	Friday
7:30-7:50	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
7:50-8:00	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast	Transition from Breakfast
8:00-8:55	Nonfiction	Nonfiction	Nonfiction	Nonfiction	Nonfiction
9:00-10:20	Math	Math	Math	Math	Math
10:25-10:50	Recess	Recess	Recess	Recess	Recess
10:55-12:25	Literature	Literature	Literature	Literature	Literature
12:30-1:05	Composition	Composition	Composition	Composition	Composition
1:10-1:35	Lunch	Lunch	Lunch	Lunch	Lunch
1:40-2:00	Science	Science	Science	Science	Science
2:00-2:30	Science	Science	PD	Science	Science
2:35-3:45	Read Aloud	Read Aloud		Read Aloud	Read Aloud
3:50-4:30	Book Clubs	Book Clubs		Book Clubs	Book Clubs
4:35-5:30	Fitness	Big Cafe		Technology	Study Hall

10. Curriculum

(a) Curriculum Process

Discuss the process that will be used to further develop and implement the school's curriculum. More specifically:

- **Explain how the curriculum has been aligned to the New York State Core Curriculum, bearing in mind that the state has adopted the Common Core State Standards ("CCSS") as its core curriculum for English language arts and mathematics.**

- **Explain how teachers will know what to teach and when to teach it, including the curriculum resources that will support instructional planning (e.g., curriculum frameworks, maps, scope and sequences, pacing guides, etc.) and who will be responsible for creating or selecting these resources.**

- **Describe the instructional materials that will be used in the classroom. If commercial or other pre-existing programs or materials will be used, explain the process for their selection. If any have already been selected, provide any evidence regarding their alignment to the school's curriculum framework (New York State Core Curriculum reflecting the adoption of the CCSS) and effectiveness with the intended student population. If instructional materials will be created, explain the process for their development and who will be responsible for it.**

- **Explain how the curriculum will be appropriate for the students the school intends to serve, as well as students with disabilities, English language learners and students below or above grade level. Explain how teachers will use the curriculum materials that are developed to meet the needs of these students. Need to explain our track record and data on ELL and SPED kids to show our curriculum works for them.**

- **Describe the process the school will use to evaluate, review and revise the curriculum on at least an annual basis to ensure its effectiveness, alignment to state standards and alignment from grade to grade. Describe who will be responsible for this process and how teachers will be involved.**

- **Describe the process the school will use to create or select new curriculum resources and instructional materials for new grades or courses, including who will be involved.**

- **Describe the school's procedures for evaluating whether the curriculum is successfully implemented and effective for all students.**

Curriculum Design

While many schools endeavor to reduce the achievement gap between different groups of students, SCN schools endeavor instead to prevent the gap from arising in the first place and to provide all children with a phenomenal education. SCN works toward this goal in numerous ways, beginning with school design. SCN schools have been designed incorporating the strongest design elements of the best public and private schools.

SCN has had the advantage of being able to examine the more than 50 charter schools that have operated in New York City since 1998 and hundreds of traditional public schools, parochial schools, and independent schools. It has studied the best practices of many of these schools, including KIPP Academies, Uncommon Schools, and Achievement First Schools as well as success public, parochial, and independent schools, to select the elements that are most effective in educating students and preparing them to succeed in school, college, and life. It has also studied the practices of schools that have failed and since ceased operations. Through a comparison of both successful and unsuccessful schools, it has been able to carefully select those elements that are most effective in helping schools realize impressive student achievement results while maintaining fiscal soundness.

As new grades and classes are added, it becomes necessary to create new curricula materials or to modify existing programs. The Director of Instruction, Director of Literacy, school leaders, and the SCN Instructional Development team research best practices from other successful schools and learn from the mistakes of those that have failed. For example, research was done examining several math programs to determine the most rigorous and effective curriculum. The Director of Instruction, Instructional Development Team and schools leaders researched seven different math programs, met with representatives of each publisher, pored over curriculum materials and observed model lessons. After three months of intensive research they recommended the implementation of Investigations TERC math with supplements for a comprehensive, rigorous, and NY State Standards aligned program. This process and level of intense research and comparison is how all components of the curriculum are selected to ensure the SCN curriculum is rigorous, effective, and aligned with all NY State Standards and Core Curriculum State Standards.

The educational focus and philosophy of all SCN schools is centered on the belief that all children can learn. All students can achieve at the highest levels - not just children who come to school from privileged backgrounds but everyone, regardless of initial school readiness. The Board of this school believes that all students deserve an education that will challenge, inspire, and prepare them for a better future. We also believe that our school can make the difference, not only to the children that will be served, but also to families and the surrounding community. In fact, achievement scores at all of the schools with which SCN schools are co-located have improved since a Success Academy moved in.

The schools where this program is currently in use provide the clearest examples of the success of the proposed school's instructional program. The existing schools managed by the Success Charter Network have shown very impressive student achievement results in all areas. The first school to open, Harlem Success Academy Charter School 1 (HSA1), located in New York City Community School District 3, serves a population of which approximately three-quarters are eligible for the federal Free and Reduced Price Lunch program. For two years in a row, the SCN school design has resulted in scores among the highest in the city,

despite being a Title I school. In the first year of state testing, 2008-2009, 95% of students scored proficient or advanced in English and Language Arts, and 100% of students scored proficient or advanced in Math, with over 70% attaining the highest score possible. In the 2009-2010 year, despite the fact that the bar was raised twenty points in reading and thirty points in math, 97% of third graders and 93% fourth graders scored at least proficient on the math test, and 89% and 86% passed the ELA test, respectively. This earned the school the ranking of #1 public school in New York City and ranked it in the top 1% of schools statewide in third grade reading and math scores. Further, it outperformed its district of location (CSD 3) by 34 percentage points. HSA1 also outperformed the much wealthier districts that serve the Upper East Side of Manhattan by 15 points and Scarsdale, NY by six points. Other SCN schools will take state tests for the first time in the coming year, but internal assessments have demonstrated a trend that shows the program is likely to continue to produce similarly stellar results. The curriculum outlines below has enabled HSA1 and other SCN schools to be successful.

Curriculum

THINK Literacy
THINK Literacy is a framework that teaches scholars to become avid readers, elegant writers and critical thinkers. At the heart of THINK Literacy is Success Academies' deep belief that scholars become voracious readers and writers by reading and writing voluminously, and develop the ability to express their ideas clearly and articulately through many daily opportunities to think and talk about great books, their own experiences, and the world around them. The THINK framework provides a balance between modeled teacher reading and writing, teacher reading and writing with scholars, and independent reading and writing by scholars. Each and every day our scholars see excellent teacher models of reading and writing, read and write with teacher guidance and coaching, and put the pieces together during extended blocks of independent reading and writing.

THINK Literacy stands firmly on the premise that all students can learn to read and write. The balance between reading and writing allows students to receive the instruction needed in order to reach grade level status, while allowing students to work at a level that is not frustrating for them. Teachers use an integrated approach to teaching literacy that creates many opportunities for reading and writing on a daily basis. The THINK literacy program involves multiple components, including Writer's Workshop, Reader's Workshop, Guided Reading, Independent Reading, Interactive Writing, Shared Reading, Non-fiction study, and more.

THINK literacy includes, but is not limited to:
1. Reading Workshop: Reading Workshop consists of a Mini-Lesson with a clear teaching point followed by students reading independently with a purpose (scholars are reading at their own independent levels); teachers instructing with individual students or in small groups and assessing student progress; students are reading at least 30 of the 50 minutes; students discuss texts in leveled partnerships or book clubs.

- To give scholars an opportunity to read and comprehend books at their independent level
- To build reading stamina
- To develop and strengthen comprehension skills, fluency, and decoding strategies

2. Interactive Read Aloud: Planned read aloud focusing on specific reading skills; includes teacher demonstration and student participation/discussion.

- To develop and deepen reading comprehension strategies
- To model fluent reading and other proficient reading behaviors
- To develop accountable talk
- To build vocabulary
- To support the writing workshop

3. Shared Reading: The teacher reads with scholars, ensuring all eyes are on the same text (poster, individual student copies, big book).

- To use one text throughout the week with the focus on a different aspect each day
- To work on reading comprehension, word work, fluency, and vocabulary

4. Independent Reading (whole class): Students read independently with a purpose (scholars are reading at their own independent levels); teachers instruct students and assess student progress.

- To give scholars an opportunity to read and comprehend books at their independent level
- To build reading stamina
- To develop and strengthen comprehension skills, fluency, and decoding strategies

5. Guided Reading (small group): Scholars are grouped fluidly according to their independent and instructional reading levels; each teacher gives a book introduction and then coaches and assesses scholars as they read. The teacher teaches one strategy to the group and may extend with word work. Based on the assessment, the teacher creates strategy groups and works with scholars on areas where they need more guidance.

- Can also be used to support scholars at their current independent reading level
- To support scholars as they progress to the next independent reading level

6. Word Study: Scholars will focus on spelling, phonics, vocabulary, and grammar.

- To teach conventions of written and oral language
- To focus on vocabulary development

7. Writing Workshop: Writing Workshop consists of a Mini-Lesson with a clear teaching point followed by independent student writing. Teachers instruct students individually or through small-group instruction while continuously assessing each student's growth and development. Students write for at least 25 of the 45 minutes of this period.

- To provide uninterrupted time for students to write about self-chosen topics
- To learn and practice correct usage of conventions
- To learn the craft of writing and transfer that skill across multiple genres
- To expose to scholars to different genres

8. Interactive Writing/Grammar: The students and the teacher compose a story together. Through this interactive instruction, students use their own whiteboards to write along and also contribute to the overall class story.

9. Non-Fiction Study: The non-fiction component of the THINK literacy program incorporates non-fiction texts into literacy units in grades K-4 and students read non-fiction texts as part of separate class in grades 5-8. Students read non-fiction texts that correspond to other academic subjects, including social studies, science, and the arts.

SCN schools supplement THINK literacy with Success For All (SFA), a research-based and research-proven program that provides children with experiences that prepare them for success in the primary grades. Specifically, SCN schools use components of KinderCorner, an all day Kindergarten curriculum that fosters the development of children's language, literacy, and interpersonal skills.

SFA's Stepping Stones exposes children to phonics through letter-sound connections, blending, and segmenting. The KinderRoots Shared Stories provide a meaningful context to practice beginning reading skills. This literacy strand includes 19 colorful stories with decodable text. Classroom DVDs linked to the reading program create memorable images of vocabulary, sound/letter correspondences, sound blending, and reading. Throughout the enriched Kindergarten program, there is a focus on developing strong oral language skills, a love of reading, phonemic awareness, phonics, listening comprehension, and writing, which creates a solid foundation for reading and learning.

Starting in 1st grade, the school will use SFA's Reading Roots, a comprehensive program that targets the needs of beginning readers. Reading Roots is a research-based beginning reading program that has proven its effectiveness through randomized experimental research. It provides a strong base for successful reading by providing systematic phonics instruction supported by decodable stories, as well as instruction in fluency and comprehension. Reading Roots also fosters students' love of reading by providing rich literature experiences, extensive oral language development, and thematically focused writing instruction. These objectives are embedded in a fast-paced, engaging, and highly effective instructional process.

In accordance with the THINK literacy model, students are grouped by reading ability level beginning in the first grade. Retesting and regrouping occurs every eight weeks, allowing teachers the opportunity to work intensively with a group of 8-15 students who are all performing at approximately the same level, thus allowing the teacher to achieve dramatic gains with these students. Cooperative learning embedded throughout the program focuses on individual accountability, equal opportunity for success, and team recognition. Providing the opportunity to work with peers to meet specific learning goals enables scholars to master basic reading, writing, and mathematical skills as they continue to grow as thoughtful learners.

SCN Math

The Math curriculum at SCN schools provides students with the opportunity to develop theoretical, conceptual, and practical mathematical understandings.

TERC *Investigations in Number, Data, and Space* is a K-5 Mathematics curriculum aligned to New York State Standards that is designed to support children as they make sense of mathematical ideas. The *Investigations* program is used at SCN schools because it is based on extensive classroom-based field-testing on how children most effectively learn mathematics.

Investigations math offers students a chance to solve real world, contextualized mathematical problems using conceptual understanding and procedural and computational fluency. The program is centered on activity-based investigations, which encourage students to think creatively, develop their own problem-solving strategies, and work cooperatively. Students are consistently writing, drawing, and talking about math in order to deepen their understandings. Mathematics content includes the number system; addition, subtraction, multiplication, and division; collecting, sorting, and representing data; probability and statistics; measurement; changes over time; 2-D and 3-D geometry; fractions; computation and estimation strategies; and tables and graphs.

SCN schools supplement TERC *Investigations in Number, Data, and Space* with Cognitively Guided Instruction (CGI), a mathematical approach that requires students to use their own mathematical understandings to problem-solve. CGI requires each student to solve problems using their own mathematical strategies; these strategies are then shared with the entire class in order to advance all students' mathematical understandings.

SCN Science

Success Academy scholars take science five days a week beginning in kindergarten. By the end of kindergarten our scholars will have conducted 135 experiments. Students learn aerodynamics in first grade and robotics in fifth grade. SCN students love to ask question and our schools capitalize on their natural curiosity with a hands-on approach. Our scholars conduct experiments and are encouraged to observe and ask questions about the world around them.

For too long science has taken a back seat to reading and mathematics in our country's schools. African American and Hispanic fourth grade students in New York City are approximately 2.5 years behind their white peers in science. Fourth grade students in New York City who qualify for free or reduced lunch are almost three years behind their peers who do not qualify for free or reduced lunch. Even worse, the National Assessment of Educational Progress found that only 3 percent of African American high school seniors were able to display anything more than partial mastery of the "knowledge and skills that are fundamental for proficient work" in the sciences.[1] These students are given high school diplomas without the skills necessary to secure high-paying jobs in science-related fields. SCN is determined to reverse this trend by providing students with a solid foundation so that they can excel in science classes in middle and high school. The SCN curriculum ensures that all students receive discovery-based experimental science instruction five days a week beginning in kindergarten.

Social Studies/ Geography

It is critically important that students comprehend the world around them, their history, and the history of other cultures. The SCN social studies curriculum allows students to master key concepts and vocabulary, geography, and cause and effect relationships. It also allows students the opportunity to develop their non-fiction reading skills and take part in relevant field studies where they can learn first-hand about cultures and communities.

Specials and Enrichment at SCN

[1] Science statistics come from the National Assessment of Educational Progress, 2005.

In addition to a rich and rigorous academic curriculum, SCN schools have a carefully designed and robust program that includes a selection of art, dance, music, chess, theater, sports, and discovery oriented science five days a week. The applicants believe that this is a critical part of SCN's strategy to prevent the achievement gap. Children need to be highly engaged in school in order to become great writers and great scholars. This is why Success Academy scholars go on numerous "field studies" as well as using the THINK Literacy and TERC-Investigations math curriculum. This serves not only to remediate but also to prepare children to be strong in writing, reading, and critical thinking.

Curriculum Support

To support the development of the Success Charter Network's educational program and school culture, SCN staffers participate in regular training, professional development sessions, conferences, observations, and site-visits. Ongoing professional development is customized for the entire network and individual schools based on feedback from network leaders, school leaders, and teachers. These regular training sessions focus on providing teachers with the knowledge, skills, and instructional materials they need to implement the curriculum at a high level.

The SCN team partners with school leaders to provide extensive guidance and resources to faculty. They create a system of challenging goals and specific unit and lesson objectives, planned backwards from accountability goals, particularly in core subject areas of math, literacy, and writing. This is paired with strong, standards- and vertically-aligned assessments designed to gauge teaching effectiveness and ensure a constant stream of data on student master of skills and objectives.

Instructional support staff, such as the Director of Instruction, Director of Literacy and the Instructional Development team, provides curriculum maps, scope and sequences, calendars, templates, rubrics and all necessary materials to ensure that all teachers are well prepared. These materials are presented and utilized during Faculty Orientation and professional development sessions.

SCN has from day one systematically documented its curriculum to ease the implementation of the Success school model in future charter schools. All materials, including year-long scope and sequences, unit overviews, lessons, video models, and general resources can be found on the networks share drive.

SCN also partners with leaders to provide and extensive program of both network-wide and school-based professional development. This includes ongoing professional development and training prior to the launch of each unit and to track student progress against end-of-unit benchmarks and end-of-semester benchmarks. This generally occurs during the weekly professional development time scheduled for each Wednesday afternoon. A more in-depth discussion of the professional development program can be found in Attachment 13.

The Director of Instruction and Director of Literacy and other instructional coaches make regular on-site visits to engage in the same activities, support the Lead Teacher/facilitator, and discuss with teacher teams how to use data and a basic problem-solving model to inform and improve instruction and properly group and accelerate students and create a plan of action for struggling students. This team also presents workshops on topics appropriate to the school's needs. Coaches will use professionally developed videos, model lessons, and

interactive sessions to present topics such as strategies for teaching English Language Learners, proactive behavior management, teaching particular reading strategies, or parent involvement.

As mentioned in our policies and strategies for serving students with disabilities and those students who are English Language Learners, general education faculty will be given professional development in properly identifying students they suspect may need an IEP or who may be ELL, and other topics including blended programming, co-teaching models and consultant teaching models.

Curriculum Evaluation and Revision

Evaluating the overall effectiveness of the curriculum is based on student achievement measured against end of year goals. When students consistently meet or exceed planned goals, the curriculum and its implementation is judged to have been effective. If performance is anything less than excellent, the SCN team and leaders go back to the drawing board to further analyze student and faculty performance and determine the specific structural flaws that led to the deficiency. Each year leaders also solicit input from teachers and use this, paired with achievement data, to examine and refine teaching, professional development, standards, skills, and sequencing.

At the end of each school year, teachers and leaders review and provide input on the curriculum scope and sequence as well as specific units, lessons, and materials. Regular evaluation also takes place during the school year. Collaboration is central to how SCN schools analyze data. Teachers and school leaders meet once a week to discuss how students performed on tests and assessments. Meetings generally center on the following questions:

- How did the school perform overall?
- How can instruction be individualized for students who did not perform well on this test?
- What skills were not mastered and need to be retaught?
- Which teachers were successful in teaching these skills and how did they teach these skills?
- Is instruction being driven in a way that challenges all students?
- How did the curriculum support student learning? How should it be revised to address areas or content identified as problematic?

Monitoring student progress will be an ongoing activity in all classrooms. A variety of tools will be used to monitor student progress, some formal and others more informal. Data will be used to guide teachers as they make instructional decisions and inform school leaders as they plan for interventions for groups and individual children each day.

School leaders, the Director of Instruction, the Director of Literacy and the Instructional Development team use this data to adjust materials and lessons as needed. The frequent collaboration and input from teachers and leaders also influences professional development topics, which are constantly being reviewed and re-prioritized in order to meet teacher and student needs.

The success of the students, school, and therefore curriculum will be continuously under examination. SCN's design element of student performance data allows the school leadership

to regularly examine, assess, and improve the effectiveness of the curriculum and the instruction. The regular eight-week reading and monthly math assessments, as well as other nationally normed assessments will provide value-added data throughout the year to be used longitudinally over multiple years. The Fountas and Pinnel (F&P) assessment or similar assessment will be used quarterly for formal assessment of reading progress. The school will hold data reviews at least every quarter as well as student assessment meetings to assess student progress, effectiveness of curriculum materials and to make changes that ensure students reach New York State Standards, Core Curriculum State Standards and school end of year goals. Additionally, the New York State and City mandated assessments will provide student performance data that will be used to determine if students are mastering and going beyond the state standards and, hence, whether or not the school is a success.

10. Curriculum

(b) Curriculum Framework

Provide evidence that the proposed school's curriculum would allow students to meet or exceed the performance standards established by the Board of Regents.

At a minimum, submit curriculum materials (see suggested template at Appendix A of this RFP) for all grade levels for which the proposed school would be authorized to provide instruction in its first year of operation aligned to New York State Standards (reflecting the adoption of the CCSS) for each of the four core content areas: English language arts, mathematics, science and social studies. These minimum requirements do not preclude an applicant from providing a complete curriculum framework for all grades proposed throughout the initial charter period to demonstrate the articulation of the instructional program over that time period. In addition, the proposal must provide at least a narrative description of the curriculum in any other content area in which the school would provide instruction in its first year of operation, e.g., art, music, foreign language.

The curriculum materials should include a key or explanation of the document's organization, and should include a list of source documents for any references used in the curriculum itself. Given that curricular materials tend to be large documents, a table of contents is

On the following pages, please find:

Math Standards Alignment

ELA Standards Alignment

Science Standards Alignment

Social Studies Standards Alignment

SCN Specials Standards Alignment

SCN Curriculum Alignment
Attachment10b_Kindergarten Math Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Counting and Cardinality	Know number names and the count sequence.	Count to 100 by ones and by tens.	SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Know number names and the count sequence.	Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Know number names and the count sequence.	Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Counting and Cardinality	Count to tell the number of objects.	Understand the relationship between numbers and quantities; connect counting to cardinality.	SCN Math Unit 1: Attributes SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Count to tell the number of objects.	When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.	SCN Math Unit 1: Attributes SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Count to tell the number of objects.	Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.	SCN Math Unit 1: Attributes SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Counting and Cardinality	Count to tell the number of objects.	Understand that each successive number name refers to a quantity that is one larger.	SCN Math Unit 1: Attributes SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Count to tell the number of objects.	Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	SCN Math Unit 1: Attributes SCN Math Unit 2: Numbers and Counting	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Counting and Cardinality	Compare numbers.	Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.1	SCN Math Unit 3: Measurement: Compare	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SCN Curriculum Alignment
Attachment10b_Kindergarten Math Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Counting and Cardinality	Compare numbers.	Compare two numbers between 1 and 10 presented as written numerals.	SCN Math Unit 3: Measurement: Compare	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	Represent addition and subtraction with objects, fingers, mental images, drawings2, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SCN Curriculum Alignment
Attachment10b_Kindergarten Math Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	Fluently add and subtract within 5.	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Understand addition as putting together and adding to, and under-stand subtraction as taking apart and taking from.	Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (e.g., 18 = 10 + 8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.	SCN Math Unit 4: Addition SCN Math Unit 5: Bunk Beds and Apple Boxes SCN Math Unit 6: Combinations SCN Math Unit 7: Beads and Shoes, Making Twos CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Measureme nt and data	Describe and compare measurable attributes.	Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.	SCN Math Unit 3: Measurement: Compare SCN Math Unit 8: Measureable Attributes	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Measurement and data	Describe and compare measurable attributes.	Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.	SCN Math Unit 1: Attributes SCN Math Unit 3: Measurement: Compare SCN Math Unit 8: Measureable Attributes CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Measurement and data	Classify objects and count the number of objects in each category.	Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.3	SCN Math Unit 1: Attributes SCN Math Unit 3: Measurement: Compare	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Geometry	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Geometry	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	Correctly name shapes regardless of their orientations or overall size.	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Geometry	Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).	Identify shapes as two-dimensional (lying in a plane, "flat") or three- dimensional ("solid").	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Geometry	Analyze, compare, create, and compose shapes.	Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/"corners") and other attributes (e.g., having sides of equal length).	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Geometry	Analyze, compare, create, and compose shapes.	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Geometry	Analyze, compare, create, and compose shapes.	Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"	SCN Math Unit 9: Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Represent and solve problems involving addition and subtraction.	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.2	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Represent and solve problems involving addition and subtraction.	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Understand and apply properties of operations and the relationship between addition and subtraction.	Apply properties of operations as strategies to add and subtract.3 Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)	SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Understand and apply properties of operations and the relationship between addition and subtraction.	Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.	SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Add and subtract within 20.	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Add and subtract within 20.	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Operations and algebraic thinking	Work with addition and subtraction equations.	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Operations and algebraic thinking	Work with addition and subtraction equations.	Determine the unknown whole number in an addition or subtraction equation relating to three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.	SCN Math Unit 2: Addition and Combination SCN Math Unit 4: Combinations Revisited and Subtraction SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Number and operations in Base ten	Extend the counting sequence.	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	SCN Math Unit 1: Number Counting SCN Math Unit 6: Counting Higher Numbers	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Number and operations in Base ten	Extend the counting sequence.	Understand that the two digits of a two-digit number represent amounts of tens and ones. Understand the following as special cases: 10 can be thought of as a bundle of ten ones — called a "ten." b. The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Number and operations in Base ten	Extend the counting sequence.	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	SCN Math Unit 1: Number Counting SCN Math Unit 6: Counting Higher Numbers SCN Math Unit 8: Combinations of 10	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Number and operations in Base ten	Extend the counting sequence.	Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	SCN Math Unit 1: Number Counting SCN Math Unit 6: Counting Higher Numbers SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Number and operations in Base ten	Extend the counting sequence.	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.	SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Number and operations in Base ten	Extend the counting sequence.	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.	SCN Math Unit 1: Number Counting SCN Math Unit 6: Counting Higher Numbers SCN Math Unit 8: Combinations of 10 CGI: Problem Solving	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Measurement and data	Measure lengths indirectly and by iterating length units.	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	SCN Math Unit 5: Measurement Money and Time	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Measurement and data	Measure lengths indirectly and by iterating length units.	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.	SCN Math Unit 5: Measurement Money and Time	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Measurement and data	Measure lengths indirectly and by iterating length units.	Tell and write time in hours and half-hours using analog and digital clocks.	SCN Math Unit 5: Measurement Money and Time	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Measurement and data	Measure lengths indirectly and by iterating length units.	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	SCN Math Unit 9: Data Analysis	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Geometry	Reason with shapes and their attributes.	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size) ; build and draw shapes to possess defining attributes.	SCN Math Unit 3: 2D Geometry SCN Math Unit 7: 3D Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Geometry	Reason with shapes and their attributes.	Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape.4	SCN Math Unit 3: 2D Geometry SCN Math Unit 7: 3D Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment
Geometry	Reason with shapes and their attributes.	Partition circles and rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters, and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	SCN Math Unit 3: 2D Geometry	Informal: Classroom Observation, Unit Checklist Formal: End of Unit Assessment Cumulative: SCN Math Interim Assessment

SCN Curriculum Alignment
Attachment10b_Grade 1 ELA Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Literature	Key Ideas and Details	Ask and answer questions about key details in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Key Ideas and Details	Retell stories, including key details, and demonstrate understanding of their central message or lesson.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Key Ideas and Details	Describe characters, settings, and major events in a story, using key details.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Craft and Structure	Identify words and phrases in stories or poems that suggest feelings or appeal to the senses.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SCN Curriculum Alignment
Attachment10b_Grade 1 ELA Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Literature	Craft and Structure	Explain major differences between books that tell stories and books that give information, drawing on a wide reading of a range of text types.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Craft and Structure	Identify who is telling the story at various points in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Integration of Knowledge and Ideas	Use illustrations and details in a story to describe its characters, setting, or events.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Literature	Integration of Knowledge and Ideas	(Not applicable to literature)		
Reading-Literature	Integration of Knowledge and Ideas	Compare and contrast the adventures and experiences of characters in stories.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SCN Curriculum Alignment
Attachment10b_Grade 1 ELA Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Literature	Range of Reading and Level of Text Complexity	With prompting and support, read prose and poetry of appropriate complexity for grade 1.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading Shared Text	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Key Ideas and Details	Ask and answer questions about key details in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Key Ideas and Details	Identify the main topic and retell key details of a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Key Ideas and Details	Describe the connection between two individuals, events, ideas, or pieces of information in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Informational Text	Craft and Structure	Ask and answer questions to help determine or clarify the meaning of words and phrases in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Craft and Structure	Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Craft and Structure	Distinguish between information provided by pictures or other illustrations and information provided by the words in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Integration of Knowledge and Ideas	Use the illustrations and details in a text to describe its key ideas.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Informational Text	Integration of Knowledge and Ideas	Identify the reasons an author gives to support points in a text.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Integration of Knowledge and Ideas	Identify basic similarities in and differences between two texts on the same topic (e.g., in illustrations, descriptions, or procedures).	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Informational Text	Range of Reading and Level of Text Complexity	With prompting and support, read informational texts appropriately complex for grade 1.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Foundational Skills	Print Concepts	Demonstrate understanding of the organization and basic features of print. a. Recognize the distinguishing features of a sentence (e.g., first word, capitalization, ending punctuation).	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Foundational Skills	Phonological Awareness	Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Distinguish long from short vowel sounds in spoken single-syllable words. b. Orally produce single-syllable words by blending sounds (phonemes), including consonant blends. c. Isolate and pronounce initial, medial vowel, and final sounds (phonemes) in spoken single-syllable words. d. Segment spoken single-syllable words into their complete sequence of individual sounds (phonemes).	Success For All: Reading Roots (see SFA Standards Alignment)	Informal: Classrom Observations, Guided Reading Formal: F&P, Reading Roots Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Reading-Foundational Skills	Phonics and Word Recognition	Know and apply grade-level phonics and word analysis skills in decoding words. a. Know the spelling-sound correspondences for common consonant digraphs. b. Decode regularly spelled one-syllable words. c. Know final -e and common vowel team conventions for representing long vowel sounds. d. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. e. Decode two-syllable words following basic patterns by breaking the words into syllables. f. Read words with inflectional endings. g. Recognize and read grade-appropriate irregularly spelled words.	Success For All: Reading Roots (see SFA Standards Alignment)	Informal: Classroom Observations, Guided Reading Formal: F&P, Reading Roots Assessment
Reading-Foundational Skills	Fluency	Read with sufficient accuracy and fluency to support comprehension. a. Read on-level text with purpose and understanding. b. Read on-level text orally with accuracy, appropriate rate, and expression on successive readings. c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.	Success For All: Reading Roots (see SFA Standards Alignment) Shared Text	Informal: Classroom Observations, Guided Reading, Shared Text Formal: F&P, Reading Roots Assessment

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Writing	Text Types and Purposes	Write opinion pieces in which they introduce the topic or name the book they are writing about, state an opinion, supply a reason for the opinion, and provide some sense of closure.	THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Writing	Text Types and Purposes	Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.	THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 6: Writing in a Content Area	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Writing	Text Types and Purposes	Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 5: Authors as Mentors	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Writing	Text Types and Purposes	(Begins in grade 3)		

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Writing	Text Types and Purposes	With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed.	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Writing	Text Types and Purposes	With guidance and support from adults, explore a variety of digital tools to produce and publish writing, including in collaboration with peers.	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Writing	Text Types and Purposes	Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).	THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 6: Writing in a Content Area	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Writing	Text Types and Purposes	With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 6: Writing in a Content Area	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Writing	Text Types and Purposes	(Begins in grade 4)		
Writing	Text Types and Purposes	(Begins in grade 3)		

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Speaking and Listening	Comprehension and Collaboration	Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups. a. Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion). b. Build on others' talk in conversations by responding to the comments of others through multiple exchanges. c. Ask questions to clear up any confusion about the topics and texts under discussion.	Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading, Read Aloud with Whole Class Conversation
Speaking and Listening	Comprehension and Collaboration	Ask and answer questions about key details in a text read aloud or information presented orally or through other media.	Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading, Read Aloud with Whole Class Conversation
Speaking and Listening	Comprehension and Collaboration	Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.	Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading, Read Aloud with Whole Class Conversation

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Speaking and Listening	Presentation of Knowledge and Ideas	Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.	Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading, Read Aloud with Whole Class Conversation
Speaking and Listening	Presentation of Knowledge and Ideas	Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt

SCN Curriculum Alignment
Attachment10b_Grade 1 ELA Standards

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Speaking and Listening	Presentation of Knowledge and Ideas	Produce complete sentences when appropriate to task and situation. (See grade 1 Language standards 1 and 3 on page 26 for specific expectations.)	Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observations, Guided Reading, Read Aloud with Whole Class Conversation

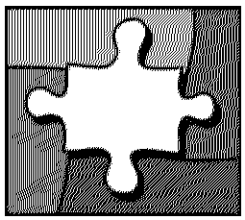
SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Language	Conventions of Standard English	Demonstrate command of the conventions of standard English grammar and usage when writing or speaking. a. Print all upper- and lowercase letters. b. Use common, proper, and possessive nouns. c. Use singular and plural nouns with matching verbs in basic sentences (e.g., He hops; We hop). d. Use personal, possessive, and indefinite pronouns (e.g., I, me, my; they, them, their; anyone, everything). e. Use verbs to convey a sense of past, present, and future (e.g., Yesterday I walked home; Today I walk home; Tomorrow I will walk home). f. Use frequently occurring adjectives. g. Use frequently occurring conjunctions (e.g., and, but, or, so, because). h. Use determiners (e.g., articles, demonstratives). i. Use frequently occurring prepositions (e.g., during, beyond, toward). j. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences in response to prompts.	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry Read Aloud with Whole Class Conversation Guided Reading	Conversation

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Language	Conventions of Standard English	Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing. a. Capitalize dates and names of people. b. Use end punctuation for sentences. c. Use commas in dates and to separate single words in a series. d. Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words. e. Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry	Informal: Classroom Observation, Writing Practice Groups Formal: SCN Writing Prompt
Language	Knowledge of Language	(Begins in grade 2)		

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Language	Vocabulary Acquisition and Use	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 1 reading and content, choosing flexibly from an array of strategies. a. Use sentence-level context as a clue to the meaning of a word or phrase. b. Use frequently occurring affixes as a clue to the meaning of a word. c. Identify frequently occurring root words (e.g.,look) and their inflectional forms (e.g., looks, looked, looking).	THINK Literacy Writing Unit 1: Launching the Writing Workshop with Personal Narrative THINK Literacy Writing Unit 2: Writing Small Moment Stories THINK Literacy Writing Unit 3:Writing for an Audience and Writing for Readers THINK Literacy Writing Unit 4: Non Fiction Writing: All About Books THINK Literacy Writing Unit 5: Authors as Mentors THINK Literacy Writing Unit 6: Writing in a Content Area THINK Literacy Writing Unit 7: Poetry Read Aloud with Whole Class Conversation Guided Reading	Informal: Stepping Stones Assessment Formal: F&P

SUBJECT	SECTION	COMMON CORE STANDARDS	SCN CURRICULUM	ASSESSMENT
Language	Vocabulary Acquisition and Use	With guidance and support from adults, demonstrate understanding of word relationships and nuances in word meanings. a. Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent. b. Define words by category and by one or more key attributes (e.g., a duck is a bird that swims; a tiger is a large cat with stripes). c. Identify real-life connections between words and their use (e.g., note places at home that are cozy). d. Distinguish shades of meaning among verbs differing in manner (e.g., look, peek, glance, stare, glare, scowl) and adjectives differing in intensity (e.g., large, gigantic) by defining or choosing them or by acting out the meanings.	Success For All: Reading Roots (see SFA Standards Alignment) Read Aloud with Whole Class Conversation Guided Reading	Informal: Classroom Observation, Guided Reading, Read Aloud with Whole Class Conversation
Language	Vocabulary Acquisition and Use	Use words and phrases acquired through conversations, reading and being read to, and responding to texts, including using frequently occurring conjunctions to signal simple relationships (e.g., because).	Read Aloud with Whole Class Conversation	Informal: Classroom Observations, Guided Reading, Guided Reading, Read Aloud with Whole Class Conversation Formal: F&P

New York



Success for All Alignment to
The New York
English Language Arts Core Curriculum



2005

Success for All Alignment
The New York English Language Arts Core Curriculum

October 2005 edition

Success for All Foundation is a nonprofit education reform organization
that develops and offers training, curriculum materials, and implementation support
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Kindergarten
KinderCorner

Reading

LITERACY COMPETENCIES
The reading competencies common to all four ELA standards in which students are making adequate progress during kindergarten are
Phonological and Phonemic Awareness, Print Awareness, Alphabet Recognition and Phonics, Fluency, Background Knowledge and Vocabulary Development Students will identify and produce spoken words that rhyme; blend beginning sound with ending sound to form known words in rhyming word families; count or tap the number of syllables in spoken words; isolate, identify, categorize, blend, and segment phonemes; recognize the remaining word when a phoneme is removed; make a new word by adding a phoneme to an existing word; substitute one phoneme for another to make a new word; understand the purpose of print is to communicate; follow left-to-right and top-to-bottom direction when reading English; track print by pointing to written words when texts are read aloud by self or others; identify the parts of a book and their functions; recognize and name automatically all uppercase and lowercase manuscript letters; recognize that individual letters have associated sounds; recognize that the sequence of letters in written words represents the sequence of sounds in spoken words; identify some consonant letter-sound correspondences; recognize and identify some sight words; read automatically a small set of high-frequency sight words; read familiar kindergarten-level texts at the emergent level; learn the meaning of new words and use them; connect vocabulary and life experiences to ideas in books

KinderCorner	
I Am Amazing! I Feel Fine! p. 167. 172, 192 *Head to Toe* p. 44, 63, 85, 86, 90, 108, 109, 113, 114, 121, 127, 129, 133, 174, 179, 192, 194, 195, 216, 217, 221, 229, 268, 241, 242 *Cornucopia* p. 28, 43, 58, 80, 97, 140, 141, 157, 177, 180, 211, 212, 215 *What's on the Menu?* p.50, 51, 56, 72, 73, 87, 92, 107, 111, 127, 130, 134, 135, 154, 155, 157, 163, 171, 172, 186, 189, 203, 206 *Sing a Song Paint a Picture* p. 18, 29, 36, 56, 57, 69, 80, 81, 83, 99, 100, 103, 116, 117, 139, 158, 159, 162,	*Words & Roads Take Us Places* p. 49, 87, 89, 164, 165, 180, 181 *Safe & Sound* p. 68, 83, 84, 99, 136, 145, 155, 163, 171, 179 *Buggy About Spring* p. 26, 42, 46,55, 76, 96, 115, 164, 172, 173, 190, 204 *City Garden & Country Farms* p. 17, 24, 57, 65, 82, 91, 99, 101, 113, 127, 128, 135, 143, 146, 153, 171 186 *Fur & Feathers* p. 17, 27, 32, 36, 44, 53, 63, 66, 72, 73, 90, 91, 105, 129, 146, 157, 167, 183, 199, 200 *Water Wonders* p. 68, 84, 85, 103, 159, 173, 174, 190 *Earth Day Is Every Day* p. 35, 47, 65,

163, 167, 179, 183, 198, 199, 217 *Winter Weatherland* p. 44, 56, 79, 80, 81, 87, 99, 100, 111, 117, 156, 157, 161, 166, 179, 180, 181, 182 *Day & Night Dark & Light* p. 21,27, 28, 36, 44, 50, 51, 64, 70, 81, 82, 99, 86, 88, 106, 141, 147, 154, 164, 166, 182, 194, 199, 200	68, 74, 83, 84, 86, 122, 141, 161, 180, 196

Comprehension Strategies Students will notice when sentences do not make sense; make predictions about story events; answer questions about text read aloud; retell or dramatize stories or parts of stories	
KinderCorner *Welcome to School* p. 23, 24, 25, 79, 123, 127 *I Am Amazing! I Feel Fine!* p. 72, 135, 142, 177 *Those Nearest & Dearest* p. 47, 72 *Cornucopia* p.24, 49, 127, 168 *What's on the Menu?* p.43, 44, 65, 123, 126, 148, 151, 184 *Sing a Song Paint a Picture* p. 23, 29, 71,77, 131, 132, 193 *Winter Weatherland* p. 58, 68, 115, 158, 162, 175, 176 *Day & Night Dark & Light* p. 29, 52, 120, 125, 148, 160, 162, 178	*Words & Roads Take Us Places* p. 85, 87, 119, 143, 178 *Buggy About Spring* p. 22, 30, 58, 59, 60,65, 81, 82, 101, 109, 110, 134, 136, 153, 157, 167 *City Garden & Country Farms* p.41, 51, 62, 69, 77, 97, 102, 109, 114, 128, 135, 148, 175 *Fur & Feathers* p. 54, 102, 123, 147, 153, 161 *Water Wonders* p. 135, 145, 151, 156, 162, 171, 189, 194 *Earth Day Is Every Day* p. 28, 44, 47
Motivation to Read Students will show interest in reading a range of kindergarten-level texts from a variety of genres; read voluntarily familiar kindergarten-level texts; show familiarity with some book titles and authors	
KinderCorner *Welcome to School* p. 37, 54, 120, 122 *I Am Amazing! I Am Fine!* p. 71, 114, 216, 218 *Those Nearest & Dearest* p. 70, 71, 120,161, 171, 237	*Words & Roads Take Us Places* p. 21, 46, 46, 147, 176, 191 *Safe & Sound* p. 23, 52, 95, 111,132, 152, 150, 167, 182, 183 *Buggy About Spring* p. 42, 48, 63, 72, 112,

Head to Toe p.74, 77, 78,99, 122, 143, 146, 152, 164, 186, 208, 232 *Cornucopia* p. 53, 201, 215, 216 *What's on the Menu?* p. 149, 193, 194 *Sing a Song Paint a Picture* p. 62, 63, 75, 85, 113, 152 *Day & Night Dark & Light* p. 51, 67, 74, 113, 172, 195, 196	146, 154, 169, 181 *City Garden & Country Farms* p. 35, 46, 75, 80, 95, 111, 135, 147, 183 *Fur & Feathers* p.22, 23, 28, 52, 70, 84, 145, 146, 159 *Water Wonders* p. 14, 43, 49, 50, 63, 80, 141, 169

GRADE-SPECIFIC PERFORMANCE INDICATORS **Specific performance indicators that kindergarten students are developing as they learn to read include**	
Standard 1: Students will read, write, listen, and speak for **information and understanding.** Students will locate and use classroom and library media center resources to acquire information, with assistance; read familiar informational texts to begin to collect data, facts, and ideas, with assistance; interpret information represented in simple charts and webs; draw on a prior experience to understand new data, facts, and ideas	
KinderCorner *I Am Amazing! I Feel Fine!* p. 167. 172, 192 *Head to Toe* p. 44, 63, 85, 86, 90, 108, 109, 113, 114, 121, 127, 129, 133, 174, 179, 192, 194, 195, 216, 217, 221, 229, 268, 241, 242 *Cornucopia* p. 28, 43, 58, 80, 97, 140, 141, 157, 177, 180, 211, 212, 215 *What's on the Menu?* p.50, 51, 56, 72, 73, 87, 92, 107, 111, 127, 130, 134, 135, 154, 155, 157, 163, 171, 172, 186, 189, 203, 206 *Sing a Song Paint a Picture* p. 18, 29, 36, 56, 57, 69, 80, 81, 83, 99, 100, 103, 116, 117, 139, 158, 159, 162, 163, 167, 179, 183, 198, 199, 217 *Winter Weatherland* p. 44, 56, 79, 80, 81, 87, 99, 100, 111, 117, 156, 157, 161, 166, 179, 180, 181, 182	*Words & Roads Take Us Places* p. 49, 87, 89, 164, 165, 180, 181 *Safe & Sound* p. 68, 83, 84, 99, 136, 145, 155, 163, 171, 179 *Buggy About Spring* p. 26, 42, 46,55, 76, 96, 115, 164, 172, 173, 190, 204 *City Garden & Country Farms* p. 17, 24, 57, 65, 82, 91, 99, 101, 113, 127, 128, 135, 143, 146, 153, 171 186 *Fur & Feathers* p. 17, 27, 32, 36, 44, 53, 63, 66, 72, 73, 90, 91, 105, 129, 146, 157, 167, 183, 199, 200 *Water Wonders* p. 68, 84, 85, 103, 159, 173, 174, 190 *Earth Day Is Every Day* p. 35, 47, 65, 68, 74, 83, 84, 86, 122, 141, 161, 180, 196

Day & Night Dark & Light p. 21,27, 28, 36, 44, 50, 51, 64, 70, 81, 82, 99, 86, 88, 106, 141, 147, 154, 164, 166, 182, 194, 199, 200	
Standard 2: Students will read, write, listen, and speak for **literary response and expression.** Students will comprehend and respond to literary texts and performances; engage in pre-reading and reading activities to - select books, tapes, and poems on the basis of personal choice/interest or teacher-selected criteria, such as a theme/topic - make connections between personal experiences and stories read - predict what might happen next in a story read aloud - retell a story, with assistance - dramatize or retell stories, using puppets, toys, and other props	
KinderCorner All themes during *Story Tree, Library Lab, Dramatic Play Lab, Write Away*	
Standard 3: Students will read, write, listen, and speak for **critical analysis and evaluation.** Students will identify and explain ideas and experiences from texts and performances; engage in pre-reading and reading activities to - identify what they know and have learned about a specific story or topic - use illustrations to assist in understanding the content of a text and to anticipate what will happen next - predict what could happen next or the outcome of a story or article read aloud - change the sequence of events in a story to create a different ending, with assistance - form an opinion about the differences between events in a story and events in own life - evaluate and select books, poems, or tapes on the basis of personal choice or teacher-selected criteria, such as topic, author, and illustrations - distinguish between real and imaginary stories	
KinderCorner All themes during *Let's Talk, Spotlight On, Story Tree, Library Lab, Dramatic Play Lab, Let's Think About It*	
Standard 4: Students will read, write, listen, and speak for **social interaction.**	

Students will share reading experience to establish, maintain, and enhance personal relationships; respect the age, gender, and cultural traditions of the writer, with assistance; recognize the vocabulary and writing conventions (e.g., greetings and closings) of social communication, with assistance	
KinderCorner All themes during *Greetings, Readings, & Writing, Let's Talk, Story Tree, Stepping Stones, Learning Labs, Let's Daydream, Let's Think About It, Home Link*	

Kindergarten Writing

LITERACY COMPETENCIES **The writing competencies common to all four ELA standards in which students are making adequate progress during kindergarten are**	
Print Awareness, Handwriting, Motivation to Write Students will use left-to-right and top-to-bottom direction when writing English; use spacing between letters and words when writing on a line; use developing knowledge of letter-sound correspondences to spell independently; use conventional spelling to spell some common or familiar words; write correctly own first and last names and the names of some friends or family; write legibly some uppercase and lowercase letters; label drawings with letters or words; write as part of play; write compositions that include letters or words and drawings to communicate for different purposes; write voluntarily to communicate for different purposes; share writing with others	
KinderCorner *Welcome to School* p. 17-19, 29, 31, 43, 91-96, 110, 112, 117, 122, 131, 133 *I Am Amazing! I Feel Fine!* p. 37, 38, 51, 55, 57, 62, 67, 74, 75, 80, 84, 105, 109, 115, 186, 187, 203, 206, 207, 211, 218, 222, 226 *Those Nearest & Dearest* p. 17, 35, 45, 55, 56, 57, 65, 67, 127, 131, 135,	*Day & Night Dark & Light* p. 17, 27, 29, 36, 109, 168, 169, 172, 174, 179, 182, 183, 194, 196, 197, 200, 203 *Words & Roads Take Us Places* p. 17, 23, 24, 34, 41, 53, 73, 80, 81, 92, 97, 103, 110, 115, 130, 135, 150, 161, 182, 189, 191 *Safe & Sound* p. 17, 26, 27, 28, 36, 41, 43, 54, 102, 107, 115, 121, 125, 159,

137, 185, 188, 193, 228, *Head to Toe* p. 19, 44, 45, 101, 102, 103, 108, 143, 153, 194, 215, 216, 221, 227, 240, 239 *Cornucopia* p. 17, 31, 38, 39, 57, 115, 117, 123, 132, 133, 140, 185, 194, 197, 209, 214 *Sing a Song! Paint a Picture!* p. 34, 40, 101, 110, 114, 116, 121, 130, 138, 157, 175, 176, 186, 192, 210 *What's on the Menu?* p. 29, 30, 36, 37, 61, 67, 83, 89, 103, 109, 120, 121, 125, 141, 142, 147, 162, 167, 182, 183, 187, 195, 203, 207, 221 *Winter Weatherland* p. 17, 50, 62, 67, 75, 79, 80, 82, 84, 89, 136, 142, 143, 149, 156, 161, 171, 184, 189, 205, 214, 216, 217	169, 171, 174, 179, *Buggy About Spring* p. 28, 34, 35, 41, 60, 65, 80, 119, 120, 125, 142, 147, 159, 163, 166, 175, 176, 200, 201, 205, 208, 209 *Fur & Feathers* p. 18, 20, 32, 37, 38, 50, 55, 93, 94, 99, 101, 113, 120, 125, 132, 138, 139, 158, 163, 171, 174, 175, 202 *City Gardens Country Farms* p. 17, 19, 22, 23, 24, 25, 29, 32, 36, 37, 49, 57, 58, 76, 90, 93, 106, 108, 111, 122, 133, 137, 149, 167, 170, 183, 186, 191, 202 *Water Wonders* p. 25, 26, 27, 33, 35, 53, 54, 59, 72, 87, 101, 103, 105, 119, 122, 127, 133, 144, 162, 174, 177, 187, 190, 193 *Earth Day Is Every Day* p. 17, 28, 34, 35, 39, 50, 51, 55, 68, 69, 73, 83, 86, 87, 100, 102, 103, 115, 122, 129, 138, 145, 146, 151, 159, 164, 177, 180, 183, 196, 199

GRADE-SPECIFIC PERFORMANCE INDICATORS **Specific performance indicators that kindergarten students are developing as they learn to write include**	
Standard 1: Students will read, write, listen, and speak for **information and understanding.** Students will copy letters and words from books, magazines, signs, charts, and own dictation; write own name on pictures, drawings, paintings, and written products; draw or write facts and ideas gathered from personal experiences; use graphics such as posters to communicate information from personal experiences; maintain a portfolio of informational writings and drawings, with assistance; draw pictures to record facts from a lesson, with assistance; use resources such as a picture dictionary or word wall to find and write words, with assistance	
KinderCorner All themes during *Greetings, Readings & Writings, Stepping Stones, Writing Lab, Write Away*	

Standard 2: Students will read, write, listen, and speak for **literary response and expression.** Students will: Draw or write original literary texts to - create a story with a beginning, middle, and end, using pictures/drawings and some words, with assistance - create poems or jingles, using pictures/drawings and some words, with assistance Draw or write to respond to text to - express feelings about characters or events in a story - describe characters or events - list a sequence of events in a story, with assistance - retell a story; Maintain a portfolio of writings and drawings in response to literature, with assistance	
KinderCorner All themes during *Greetings, Readings & Writings, Writing Lab, Write Away*	
Standard 3: Students will read, write, listen, and speak for **critical analysis and evaluation.** Students will: Draw and/or write to express opinions and judgments to - share what they know and have learned about a theme or topic - respond in pictures or words to an experience or event shared by a classmate - depict an opinion about statements, illustrations, characters, and events in written and visual texts - compare characters and settings within and between stories - describe the differences between real and imaginary experiences, with assistance Maintain a portfolio of writings and drawings that express opinions and judgments, with assistance	
KinderCorner All themes during *Greetings, Readings & Writings, Story Tree, Writing Lab, Write Away*	
Standard 4: Students will read, write, listen, and speak for **social interaction.** Students will Share writings and drawings with peers or adults; for example,	

write/draw with a partner or in a cooperative group; respect the age, gender, and culture of the recipient, with assistance; write friendly letters to others; maintain a portfolio of writings and drawings for social interaction, with assistance	
KinderCorner All themes during *Greetings, Readings & Writings, Story tree, Writing Lab, Write Away, Home Link* Write friendly letters *Those Nearest & Dearest* p. 28, 94, 138, 159,	

Kindergarten Listening

LITERACY COMPETENCIES **The listening competencies common to all four ELA standards in which students are making adequate progress during kindergarten are**	
Listening Students will listen attentively to spoken language; listen attentively for different purposes; understand and follow oral directions; listen respectfully without interrupting others	
KinderCorner *Welcome to School* p. 18, 35, 50, 54, 55, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 83, 85, 86, 89, 90, 92, 93, 94, 97, 99, 105, 107, 110, 111, 114, 116, 118, 121, 122, 123, 126, 129, 131, 133, 135, 136, 137, 144, 145, 151, 152, 153, 157, 164, 176, 177, 194 *I Am Amazing! I Feel Fine!* p. 67, 68, 69, 70, 71, 72, 73,74, 83, 85, 86, 89, 90, 92, 93, 94, 97, 99, 105, 107, 110, 111, 114, 116, 118, 121, 122, 123, 126, 129, 131, 133, 135, 136, 137, 144, 145, 151, 152, 153, 157, 164, 176, 177, 194 *Those Nearest and Dearest* p. 39, 71,	24, 25, 35, 38, 46, 47, 50, 51, 52, 60, 68, 72, 75, 76, 77, 82, 83, 85, 96, 102, 104, 110, 111, 112, 113, 115, 119, 120, 126, 127, 128, 133, 138, 140, 141, 143, 148, 150, 151, 153, 156, 157, 161, 164, 168, 173, 174, 175, 181, 189, 191, 193, 200, 207, 208, 212, 213, 220 *Winter Weatherland* p. 17, 18, 19, 20, 22, 23, 32, 36, 45, 47, 48, 49, 60, 61, 62, 67, 68, 72, 80, 89, 90, 91, 94, 102, 107, 108, 109, 110, 112, 113, 120, 121, 127, 128, 132, 133, 144, 145, 149, 150, 152, 155, 156, 162, 163, 164, 167, 171, 172, 175, 189, 205,

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GRADE-SPECIFIC PERFORMANCE INDICATORS **Specific performance indicators that kindergarten students are developing as they learn to listen include**	
Standard 1: Students will read, write, listen, and speak for **information and understanding.** Students will acquire information from nonfiction text; identify words and sentences on a chart, with assistance; follow a two step direction; identify and respond to environmental sounds, such as a school bell or a fire alarm, that provide information; identify similarities in information about people, places, and events	
KinderCorner All themes during *Greetings, Readings, & Writings, Spotlight On, Learning Labs, Stepping Stones, Let's Think About It, Home Link*	
Standard 2: Students will read, write, listen, and speak for **literary response and expression.** Students will listen to literary texts and performances to - appreciate and enjoy literary works - match spoken words with pictures, with assistance - recall a sequence of events from a personal experience or story - identify character and setting - respond to vivid language (e.g., nonsense words and rhymes) - identify specific people and places - distinguish between **a story and a poem, with assistance**	
KinderCorner All themes during *Greetings, Readings, & Writings, Let's Talk, Spotlight On, Rhyme Time, Story Tree, Let's Daydream, Let's Think About It, Home Link*	
Standard 3: Students will read, write, listen, and speak for **critical analysis and evaluation.** Students will form an opinion or evaluate information on the basis of information in the world; form an opinion about a book or play read aloud by using	

established criteria, such as title and vocabulary, to judge books; recognize differences in two or more versions of a familiar story, song, or finger play; identify messages in advertisements by listening to the words (n/a)	
KinderCorner All themes during *Spotlight On, Story Tree, Stepping Stones*	
Standard 4: Students will read, write, listen, and speak for **social interaction.** Students will respect the age, gender, and culture of the speaker; listen to friendly notes, cards, letters, and personal narratives read aloud to get to know the writer and/or classmates; listen for the tone of voice and content that signal friendly communication	
KinderCorner All themes during *Story Tree*	

Kindergarten Speaking

LITERACY COMPETENCIES **The speaking competencies common to all four ELA standards in which students are making adequate progress during kindergarten are**	
Speaking Students will use kindergarten-level vocabulary and grammar in own speech; speak for different purposes; speak audibly; speak with speed and expression appropriate for the purpose; take turns speaking in a group	
KinderCorner *Welcome to School* p. 18, 35, 50, 54, 55, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 83, 85, 86, 89, 90, 92, 93, 94, 97, 99, 105, 107, 110, 111, 114, 116, 118, 121, 122, 123, 126, 129, 131, 133, 135, 136, 137, 144, 145, 151, 152, 153, 157, 164, 176, 177, 194 *I Am Amazing! I Feel Fine!* p. 67, 68, 69, 70, 71, 72, 73,74, 83, 85, 86, 89, 90, 92, 93, 94, 97, 99, 105, 107, 110, 111, 114, 116, 118, 121, 122, 123, 126, 129, 131, 133, 135, 136, 137, 144, 145, 151, 152, 153, 157, 164,	24, 25, 35, 38, 46, 47, 50, 51, 52, 60, 68, 72, 75, 76, 77, 82, 83, 85, 96, 102, 104, 110, 111, 112, 113, 115, 119, 120, 126, 127, 128, 133, 138, 140, 141, 143, 148, 150, 151, 153, 156, 157, 161, 164, 168, 173, 174, 175, 181, 189, 191, 193, 200, 207, 208, 212, 213, 220 *Winter Weatherland* p. 17, 18, 19, 20, 22, 23, 32, 36, 45, 47, 48, 49, 60, 61, 62, 67, 68, 72, 80, 89, 90, 91, 94, 102, 107, 108, 109, 110, 112, 113, 120, 121, 127, 128, 132, 133, 144, 145,

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GRADE-SPECIFIC PERFORMANCE INDICATORS
Specific performance indicators that kindergarten students are developing as they learn to speak include
Standard 1: Students will read, write, listen, and speak for **information and understanding.** Students will dictate information from personal experience; report information

briefly to peers and familiar adults, with assistance; connect information from personal experiences to information from nonfiction texts, with assistance; retell more than one piece of information in sequence; share observations from classroom and home; ask questions to clarify directions and/or classroom routines; respond orally to simple questions and/or directions; share information, using appropriate visual aids, such as, puppets, toys, and pictures, to illustrate a word or concept, with assistance; dramatize an experience or event	
KinderCorner All themes during *Greetings, Readings & Writings, Let's Talk, Spotlight On, Write Away, Home Link*	
Standard 2: Students will read, write, listen, and speak for **literary response and expression.** Students will interpret words of characters in stories; engage in conversations with adults and peers regarding pictures, books, and experiences; role-play characters or events from stories; express feelings about a work of fiction or poetry; respond to stories, legends, and songs from different cultural and ethnic groups, with assistance; compare stories from personal experience with stories heard; dictate stories with a beginning, middle, and end; express the mood of a story by using a variety of words, with assistance; describe the actions of characters in a story; tell real or imaginative stories on the basis of response to illustrations; retell familiar stories; describe familiar persons, places, or objects; recite short poems, nursery rhymes, and finger plays	
KinderCorner All themes during *Greetings, Readings & Writings, Let's Talk, Spotlight On, Rhyme Time, Story Tree, Dramatic Play Lab, Write Away, Let's Think About It, Home Link*	
Standard 3: Students will read, write, listen, and speak for **critical analysis and evaluation.** Students will share what they know and have learned about a topic; express an opinion or judgment about a story, poem, finger play, or poster; compare characters or events in two or more stories; express an opinion about the color, form, and style of illustrations; explain personal criteria (e.g., color and pictures) for choosing a book, poem, or story; dramatize differences and similarities in characters; brainstorm to create an experience chart; compare different versions of the same story; explain why two different characters view an event differently; compare events or characters in a story with their lives, with assistance	

KinderCorner All themes during *Let's Talk, Spotlight On, Story Tree, Dramatic Play Lab, Write Away, Let's Think About It, Home Link*	
Standard 4: Students will read, write, listen, and speak for **social interaction.** Students will participate in small or large group storytelling, singing, and finger play, in order to interact with classmates and adults in the classroom and school environment; share favorite anecdotes, riddles, and rhymes with peers and familiar adults; respect the age, gender, and interests of the listener; discuss the content of friendly notes, cards, letters, and personal narratives, with a partner or in a small group, to get to know the writer and each other	
KinderCorner All themes during *Let's Talk, Spotlight On, Story Tree, Dramatic Play Lab, Write Away, Let's Think About It, Home Link*	

Grade 1
Reading Roots
Writer's Workshop

Reading

LITERACY COMPETENCIES: The reading competencies common to all four ELA standards in which students are making adequate progress during grade 1 are	
Phonemic Awareness, Decoding (Including Phonics and Structural Analysis) Print Awareness, and Fluency. Students will: count the number of syllables in a word; blend spoken sounds to form words; segment spoken words into component sounds; identify and produce letter-sound correspondences; blend sounds using knowledge of letter-sound correspondences, root words, prefixes, suffixes, verb endings, plurals, contractions, and compounds; check accuracy of decoding using context to monitor and self-correct, identify parts of a book and their purposes, sight-read automatically 300–500 words including sight and decodable words; use punctuation clues to read connected text with expression, accuracy and fluency; read grade-level texts with decodable and irregularly spelled words at appropriate speed, accuracy and expression.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 1 Lesson 2 p. 17 Lesson 3 p. 29, 33 Lesson 4 p. 41-44, 50, 55 Lesson 5 p. 61-64 Lesson 6 p. 81-85, 90, 91 Lesson 7 p. 101, 108, 112 Lesson 8 p. 117, 118, 119 Lesson 9 p. 133-135, 140 Lesson 10 p. 149, 156 Lesson 11 p. 167, 168, 174 Lesson 12 p. 185, 196 Lesson 13 p. 203-204, 210 Lesson 14 p. 219-220, 225, 229 Lesson 15 p. 235-237, 244, 246 Lessons 1-15 ***Fast Track Phonics Volume 1*** **Level 2** Lesson 16 p. 1-4, 9, 13 Lesson 17 p. 21-22, 27, 31	**Level 3** Lesson 26 p. 1-3, 13 Lesson 27 p. 21-22, 28, 32 Lesson 28 p. 39-40, 45, 49 Lesson 29 p. 57-58, 67 Lesson 30 p. 75-76, 81, 86 Lesson 31 p. 95-96, 102, 106 Lesson 32 p. 113-114, 119, 123 Lesson 33 p. 131-132, 137, 141 Lesson 34 p. 147-148, 153, 157 Lesson 35 p. 163-165, 169, 173 Lesson 36 p. 179-180, 186, 190 Lessons 26-37 ***Fast Track Phonics Volumes 1 & 2*** **Level 4** Lesson 39 p. 38, 43 Lesson 40 p. 59, 64, 68-69 Lesson 41 p. 81, 86, 91 Lesson 42 p. 101, 107, 111 Lesson 43 p. 122-123, 128, 133 Lesson 44 p. 146, 150-151, 155

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Background Knowledge and Vocabulary Development. Students will: study antonyms, synonyms, and homonyms to learn new grade-level vocabulary; study categories of words (e.g., animals, place names) to learn new grade-level vocabulary; study root words, prefixes, suffixes, verb endings, and plural nouns to learn new grade-level vocabulary; connect words and ideas in books to prior knowledge; learn new words indirectly from reading books and other print sources; increase background knowledge by elaborating and integrating new vocabulary and ideas from texts.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 3, 7, 8, 11 Lesson 2 p. 17-18, 19 Lesson 5 p. 68-69 Lesson 8 p. 119-121, 125 Lesson 9 p. 135-136 Lesson 11 p. 167, 171, 173 Lesson 12 p. 187, 188-189 Lesson 13 p. 205, 208 Lesson 14 p. 221-222, 228 Lesson 15 p. 237-239 **Level 2** Lesson 16 p. 5, 8 Lesson 17 p. 21 Lesson 18 p. 40 Lesson 19 p. 58 Lesson 20 p. 76, 85 Lesson 22 p. 108, 117 Lesson 23 p. 132 Lesson 24 p. 140	**Level 3** Lesson 27 p. 26 Lesson 29 p. 61, 69 Lesson 30 p. 89 Lesson 31 p. 109 Lesson 32 p. 118, 121 Lesson 33 p. 134 Lesson 34 p. 164 Lesson 36 p.183, 189, 191, 193 **Level 4** Lesson 39 p. 39, 44, 49 Lesson 40 p. 60, 65, 70 Lesson 41 p. 41, 88, 92 Lesson 42 p. 102-103, 108 Lesson 43 p. 124, 129, 134 Lesson 44 p. 147, 151-152 Lesson 46 p. 190, 194-195 Lesson 47 p. 210, 219 Lesson 48 p. 230-235

Comprehension Strategies. Students will read grade-level texts for different purposes;

use comprehension strategies to clarify meaning of text, work cooperatively with peers to comprehend text; use graphic or semantic organizers to organize and categorize information; ask questions in response to texts; answer simple questions in response to texts; sequence events in retelling stories; summarize main ideas from informational texts; follow simple written instructions; use own perspectives and opinions to comprehend text.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 3, 7, 8 Lesson 5 p. 68, 69 Lesson 9 p. 135, 136 Lesson 11 p. 167, 171, 173 Lesson 13 p. 205, 208 Lesson 15 p. 237- 239 **Level 2** Lesson 16 p. 5, 8 Lesson 18 p. 40 Lesson 20 p. 76, 85 Lesson 22 p. 108, 117 Lesson 24 p. 140	**Level 3** Lesson 29 p. 61, 69 Lesson 31 p. 109 Lesson 32 p. 118, 121 Lesson 33 p. 134 **Level 4** Lesson 38 p. 9-10 Lesson 40 p. 60-61 Lesson 41 p. 87-88 Lesson 43 p. 124-125 Lesson 46 p. 190-191 Lesson 47 p. 210-211

Motivation to Read. Students will: show interest in reading a range of grade-level children's texts from a variety of genres; read voluntarily familiar grade-level texts; show familiarity with title and author of grade-level books.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 3, 6 Lesson 5 p. 66, 67 Lesson 9 p. 136-137 Lesson 11 p. 170-172 Lesson 13 p. 206-207 Lesson 15 p. 238-239 **Level 2** Lesson 16 p. 5-7 Lesson 17 p. 21 Lesson 19 p. 58 Lesson 20 p. 76, 85 Lesson 22 p. 108, 117 Lesson 23 p. 132	**Level 3** Lesson 29 p. 61 Lesson 31 p. 109 Lesson 33 p. 134 Lesson 35 p. 163 Lesson 36 p.182-184 **Level 4** Lesson 40 p. 40 Lesson 42 p. 105 Lesson 43 p. 126 Lesson 45 p. 178 Lesson 48 p. 233

GRADE-SPECIFIC PERFORMANCE INDICATORS **The grade-specific performance indicators that grade 1 students are developing as they learn to read include:**	
Standard 1- Students will **read**, write, listen and speak for **information and understanding.** Students will read grade-level informational texts to begin to collect data, facts, and ideas, with assistance; distinguish between texts with stories and texts with information.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 5 p. 67 Lesson 8 p. 120-122 Lesson 12 p. 188-190 Lesson 13 p. 206-208 Lesson 15 p. 238, 240 **Level 2** Lesson 16 p. 6-7 Lesson 17 p. 24-25 Lesson 18 p. 43 Lesson 20 p. 76-77 Lesson 23 p. 128-129	**Level 3** Lesson 27 p. 26 Lesson 29 p. 61, 64 Lesson 30 p. 83 Lesson 31 p. 103 Lesson 32 p. 116, 121 Lesson 33 p. 134 Lesson 35 p. 166 **Level 4** Lesson 38 p. 26-27 Lesson 40 p. 65 Lesson 42 p. 102-103 Lesson 44 p. 147-148 Lesson 46 p. 190-191 Lesson 48 p. 230-231

Standard 2 - Students will **read**, write, listen, and speak for **literary response and expression.** Students will: comprehend and respond to imaginative texts and performances; interpret, with assistance, engage in pre-reading and reading activities, select books, tapes, and poems on the basis of personal choice, dramatize or retell stories.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 6 Lesson 3 p. 33-34 Lesson 4 p. 52-53 Lesson 5 p. 72-73 Lesson 6 p. 92-93 Lesson 7 p. 109-110 Lesson 8 p. 125-126 Lesson 11 p. 170-173 Lesson 13 p. 211-212 Lesson 14 p. 226-227 **Level 2** Lesson 18 p. 40-41 Lesson 20 p. 80-81 Lesson 22 p. 112-113 Lesson 24 p. 144-145 Lesson 25 p. 161-162	**Level 3** Lesson 26 p. 9-11 Lesson 28 p. 46-47 Lesson 30 p. 82-83 Lesson 32 p. 121 Lesson 33 p. 133 Lesson 35 p. 166-167 Lesson 37 p. 205-206 **Level 4** Lesson 39 p. 52-53 Lesson 42 p. 82-83 Lesson 43 p. 124-125 Lesson 46 p. 190-191 Lesson 48 p.230-231

Standard 3 - Students will **read**, write, listen and speak for **critical analysis and evaluation.** Students will: identify, explain, and evaluate ideas, themes, and experiences from texts and performances, engage in pre-reading and reading activities.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 4 p. 41-45 Lesson 5 p. 61- 65 Lesson 9 p. 133- 135 Lesson 11 p. 167-170 Lesson 13 p. 203-206 Lesson 15 p. 235-238 **Level 2** Lesson 16 p.1- 5 Lesson 18 p. 37-40 Lesson 20 p. 73-76 Lesson 22 p. 105-108 Lesson 23 p. 121-124 Lesson 24 p. 137-139	**Level 3** Lesson 27 p. 21-24 Lesson 29 p. 57-60 Lesson 31 p. 95-98 Lesson 33 p. 131-134 Lesson 35 p. 163-166 Lesson 36 p.179-182 **Level 4** Lesson 38 p. 26-27 Lesson 40 p. 65 Lesson 42 p. 102-103 Lesson 44 p. 147-148 Lesson 46 p. 190-191 Lesson 48 p. 230-231

Standard 4 - Students will **read**, write, listen, and speak for **social interaction.** Students will: share reading experiences to establish, maintain, and enhance personal relationships with peers or adults, recognize the vocabulary of social communication.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 4 p. 49 Lesson 5 p. 71 Lesson 6 p. 91 Lesson 7 p. 109 Lesson 10 p. 156 Lesson 13 p. 211 Lesson 14 p. 226 **Level 2** Lesson 16 p. 10 Lesson 18 p. 44 Lesson 21 p. 96-97 Lesson 22 p. 112 Lesson 24 p. 143-144	**Level 3** Lesson 26 p. 8-9 Lesson 28 p. 46 Lesson 30 p. 82 Lesson 32 p. 120 Lesson 34 p. 154 Lesson 35 p. 169-170 **Level 4** Lesson 38 p. 8, 16, 20 Lesson 40 p. 60, 64, 69 Lesson 41 p. 82, 87, 91 Lesson 43 p. 124, 128, 133 Lesson 45 p. 168, 172, 176

Grade 1 Writing

LITERACY COMPETENCIES

The writing competencies common to all four ELA standards in which students are making adequate progress during grade 1 are:

Spelling, Handwriting Students will: use developing knowledge of letter-sound correspondence to spell independently grade-level decodable words; use conventional spelling to spell common grade-level irregularly spelled content and high-frequency words; spell correctly three- and four-letter short vowel words; write legibly most uppercase and lowercase manuscript letters; write letters legibly when dictated; write stories and informational text that establish a topic and use words that can be understood by others; use conventional capitalization and punctuation to begin and end sentences.

Reading Roots *Teacher's Manual*	
Level 1 Lesson 5 p. 76 Lesson 7 p. 113-114 Lesson 8 p. 129 Lesson 9 p. 145	**Level 3** Lesson 28 p. 50-52 Lesson 30 p. 87-89 Lesson 32 p. 124-126 Lesson 36 p. 191-193
Level 2 Lesson 1 6 p. 14-17 Lesson 17 p. 32-33 Lesson 20 p. 84-85 Lesson 25 p. 164-165	**Level 4** Lesson 39 p. 50-51 Lesson 42 p. 118-119 Lesson 44 p.162-163 Lesson 48 p. 240-242

Composition and Motivation to Write Students will: write compositions, beginning to use the writing process; write compositions for different purposes and include text, illustrations, and other graphics write voluntarily to communicate to others; write voluntarily for different purposes; share writing with others

Reading Roots *Teacher's Manual*	
Level 1 Lesson 5 p. 76 Lesson 7 p. 113-114 Lesson 8 p. 129 Lesson 9 p. 145	**Level 3** Lesson 28 p. 50-52 Lesson 30 p. 87-89 Lesson 32 p. 124-126 Lesson 36 p. 191-193
Level 2 Lesson 1 6 p. 14-17 Lesson 17 p. 32-33 Lesson 20 p. 84-85 Lesson 25 p. 164-165	**Level 4** Lesson 39 p. 50-51 Lesson 42 p. 118-119 Lesson 44 p.162-163 Lesson 48 p. 240-242

GRADE-SPECIFIC PERFORMANCE INDICATORS

Specific performance indicators that grade 1 students are developing as they learn to write include:

Standard 1: Students will read, **write,** listen, and speak for **information and understanding.**

Students will: copy words, phrases, and sentences; write data, facts, and ideas gathered from personal experiences; take notes to record facts from lessons; write words or draw pictures in order to capture important understandings; state the main idea

Reading Roots *Teacher's Manual*	
Level 1	**Level 3**
Lesson 6 p. 96-98	Lesson 28 p. 50-52
Lesson 8 p. 129-130	Lesson 30 p. 87-89
Lesson 10 p. 160-161	Lesson 32 p. 124-126
Lesson 13 p. 215-216	Lesson 36 p. 191-193
Level 2	**Level 4**
Lesson 16 p. 14-16	Lesson 39 p. 50-51
Lesson 17 p. 32-33	Lesson 42 p. 118-119
Lesson 21 p. 101-102	Lesson 44 p.162-163
Lesson 25 p. 164-165	Lesson 48 p. 240-242

Standard 2 - Students will read, **write,** listen, and speak for **literary response and expression.** Students will: develop original literary texts; write to respond to text; maintain a portfolio of writings and drawings in response to literature; use personal experiences to stimulate own writing.

Reading Roots *Teacher's Manual*	
Level 1	**Level 3**
Lesson 5 p. 76	Lesson 28 p. 50-52
Lesson 7 p. 113-114	Lesson 30 p. 87-89
Lesson 8 p. 129	Lesson 32 p. 124-126
Lesson 9 p. 145	Lesson 36 p. 191-193
Level 2	
Lesson 1 6 p. 14-17	**Level 4**
Lesson 17 p. 32-33	Lesson 39 p. 50-51
Lesson 20 p. 84-85	Lesson 42 p. 118-119
Lesson 25 p. 164-165	Lesson 44 p.162-163
	Lesson 48 p. 240-242

Standard 3: Students will read, **write,** listen, and speak for **critical analysis and evaluation.** Students will: write to express opinions and judgments to share what they know, want to know, and have learned about a theme or topic; maintain a portfolio of writings and drawings that express opinions and judgments, with assistance; use prewriting tools, such as semantic webs and concept maps, to organize ideas and information, with assistance.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 6 p. 96-98 Lesson 8 p. 129-130 Lesson 10 p. 160-161 Lesson 13 p. 215-216 **Level 2** Lesson 16 p. 14-16 Lesson 17 p. 32-33 Lesson 21 p. 101-102 Lesson 25 p. 164-165	 **Level 3** Lesson 28 p. 50-52 Lesson 30 p. 87-89 Lesson 32 p. 124-126 Lesson 36 p. 191-193 **Level 4** Lesson 39 p. 50-51 Lesson 42 p. 118-119 Lesson 44 p.162-163 Lesson 48 p. 240-242

Standard 4: Students will read, **write,** listen, and speak for **social interaction.** Students will: share the process of writing with peers or adults; respect the age, gender, and culture of the recipient; write friendly letters to others, using salutations and closings; maintain a portfolio of writings and drawings for social interaction, with assistance	
Reading Roots *Teacher's Manual* **Level 1** Lesson 5 p. 76 Lesson 7 p. 113-114 Lesson 8 p. 129 Lesson 9 p. 145 **Level 2** Lesson 1 6 p. 14-17 Lesson 17 p. 32-33 Lesson 20 p. 84-85 Lesson 25 p. 164-165	 **Level 3** Lesson 28 p. 50-52 Lesson 30 p. 87-89 Lesson 32 p. 124-126 Lesson 36 p. 191-193 **Level 4** Lesson 39 p. 50-51 Lesson 42 p. 118-119 Lesson 44 p.162-163 Lesson 48 p. 240-242

Grade 1 Listening

LITERACY COMPETENCIES

The listening competencies common to all four ELA standards in which students are making adequate progress during grade 1 are

Listening – Students will: listen attentively to spoken language, listen attentively for different purposes; listen respectfully without interrupting when others speak; attend to a listening activity for a specified period of time.

Reading Roots *Teacher's Manual*

Level 1
Lesson 2 p. 22-24
Lesson 4 p. 48-49
Lesson 6 p. 93-95
Lesson 8 p. 122-123
Lesson 10 p. 154-155
Lesson 12 p. 194-195
Lesson 14 p. 227- 228

Level 2
Lesson 17 p. 26-27
Lesson 19 p. 64-65
Lesson 21 p. 98-99
Lesson 23 p. 126
Lesson 24 p. 145-146
Lesson 25 p. 158-159

Level 3
Lesson 28 p. 47-48
Lesson 30 p. 80
Lesson 32 p. 117-118
Lesson 34 p. 152-153
Lesson 36 p. 188-189
Lesson 37 p. 202-203

Level 4
Lesson 38 p. 11,
Lesson 41 p. 84-85
Lesson 43 p. 104-105
Lesson 46 p. 191-192
Lesson 47 p. 216-217

GRADE-SPECIFIC PERFORMANCE INDICATORS

Specific performance indicators that grade 1 students are developing as they learn to listen include:

Standard 1: Students will read, write, **listen,** and speak for **information and understanding.**
Students will: acquire information from nonfiction text; identify words and sentences on a chart; follow directions involving a few steps; identify similarities and differences in information about people, places, and events.

Reading Roots *Teacher's Manual*

Level 1
Lesson 1 p. 7-9
Lesson 5 p. 68-69
Lesson 7 p. 106-107
Lesson 9 p. 138-140
Lesson 11 p. 172-174

Level 3
Lesson 27 p. 26-27
Lesson 29 p. 62
Lesson 31 p. 104-105
Lesson 33 p. 136-137

Lesson 13 p. 208-209 Lesson 15 p.240-241 **Level 2** Lesson 16 p. 7-9 Lesson 18 p. 42-43 Lesson 20 p. 78-79 Lesson 22 p. 109-110 Lesson 24 p. 145-146 Lesson 25 p. 162-163	Lesson 34 p. 156-157 Lesson 35 p. 168 **Level 4** Lesson 38 p. 11 Lesson 40 p. 66-67 Lesson 41 p. 84-85 Lesson 44 p. 152-153 Lesson 45 p. 191-192 Lesson 47 p. 216-217

Standard 2: Students will read, write, **listen,** and speak for **literary response and expression.** Students will listen to literary texts and performances	
Reading Roots *Teacher's Manual* **Level 1** Lesson 2 p. 22-24 Lesson 4 p. 48-49 Lesson 6 p. 93-95 Lesson 8 p. 122-123 Lesson 10 p. 154-155 Lesson 12 p. 194-195 Lesson 14 p. 227- 228 **Level 2** Lesson 17 p. 26-27 Lesson 19 p. 64-65 Lesson 21 p. 98-99 Lesson 23 p. 126 Lesson 24 p. 145-146 Lesson 25 p. 158-159	**Level 3** Lesson 28 p. 47-48 Lesson 30 p. 80 Lesson 32 p. 117-118 Lesson 34 p. 152-153 Lesson 36 p. 188-189 Lesson 37 p. 202-203 **Level 4** Lesson 38 p. 11, Lesson 41 p. 84-85 Lesson 43 p. 104-105 Lesson 46 p. 191-192 Lesson 47 p. 216-217

Standard 3: Students will read, write, **listen,** and speak for **critical analysis and evaluation.** Students will: form an opinion and evaluate information on the basis of information in the world; identify messages in advertisements by listening to the words, music, and sound effects.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 1 p. 7-9	**Level 3**

Lesson 5 p. 68-69 Lesson 9 p. 138-140 Lesson 11 p. 172-174 Lesson 15 p.240-241 **Level 2** Lesson 16 p. 7-9 Lesson 22 p. 109-110 Lesson 24 p. 145-146 Lesson 25 p. 162-163	Lesson 27 p. 26-27 Lesson 31 p. 104-105 Lesson 33 p. 136-134 Lesson 35 p. 168 **Level 4** Lesson 39 p. 45-46 Lesson 40 p. 66-67 Lesson 41 p. 84-85 Lesson 44 p. 152-153 Lesson 45 p. 191-192 Lesson 47 p. 216-217

Standard 4: Students will read, write, **listen**, and speak for **social interaction.** Students will: respect the age, gender, and culture of the speaker; listen to friendly notes, cards, letters, and personal narratives read aloud; listen for the tone of voice and content.	
Reading Roots *Teacher's Manual* **Level 1** Lesson 2 p. 22-24 Lesson 5 p. 68-69 Lesson 8 p. 122-123 Lesson 10 p. 154-155 Lesson 14 p. 227- 228 **Level 2** Lesson 17 p. 26-27 Lesson 19 p. 64-65 Lesson 21 p. 98-99 Lesson 24 p. 145-146 Lesson 25 p. 158-159	**Level 3** Lesson 28 p. 47-48 Lesson 30 p. 80 Lesson 34 p. 152-153 Lesson 36 p. 188-189 Lesson 37 p. 202-203 **Level 4** Lesson 38 p. 11 Lesson 40 p. 66-67 Lesson 41 p. 84-85 Lesson 44 p. 152-153 Lesson 45 p. 191-192 Lesson 48 p. 235-236

Grade 1 Speaking

LITERACY COMPETENCIES
The speaking competencies common to all four ELA standards in which students are making adequate progress during grade 1 are:
Speaking: Students will use grade-level vocabulary and conventional grammar in own speech; speak for different purposes; vary language style according to purpose of communication; speak audibly; speak with speed and expression appropriate to the purpose and audience; take turns in conversation or speaking in a group; respond appropriately to what others are saying

Reading Roots *Teacher's Manual*	
Level 1	
Lesson 2 p. 22-24	**Level 3**
Lesson 4 p. 48-49	Lesson 28 p. 47-48
Lesson 6 p. 93-95	Lesson 30 p. 80
Lesson 8 p. 122-123	Lesson 32 p. 117-118
Lesson 10 p. 154-155	Lesson 34 p. 152-153
Lesson 12 p. 194-195	Lesson 36 p. 188-189
Lesson 14 p. 227- 228	Lesson 37 p. 202-203
Level 2	**Level 4**
Lesson 17 p. 26-27	Lesson 38 p. 9
Lesson 19 p. 64-65	Lesson 40 p. 70
Lesson 21 p. 98-99	Lesson 41 p. 82
Lesson 23 p. 126	Lesson 43 p. 129
Lesson 24 p. 145-146	Lesson 45 p. 177
Lesson 25 p. 158-159	Lesson 47 p. 215

GRADE-SPECIFIC PERFORMANCE INDICATORS
Specific performance indicators that grade 1 students are developing as they learn to speak include:
Standard 1: Students will read, write, listen, and **speak** for **information and understanding.** Students will: dictate information; report information to peers and familiar adults; connect information from personal experiences to information from nonfiction texts; retell multiple pieces of information in sequence; share observations from the classroom, home, or community; ask questions to clarify topics, directions, and/or classroom routines; respond orally to questions and/or directions; share information using appropriate visual aids to illustrate a word or concept.

Reading Roots *Teacher's Manual*	
Level 1	
Lesson 1 p. 7-9	**Level 3**

Lesson 5 p. 68-69 Lesson 7 p. 106-107 Lesson 9 p. 138-140 Lesson 11 p. 172-174 Lesson 13 p. 208-209 Lesson 15 p.240-241 **Level 2** Lesson 16 p. 7-9 Lesson 18 p. 42-43 Lesson 20 p. 78-79 Lesson 22 p. 109-110 Lesson 24 p. 145-146 Lesson 25 p. 162-163	Lesson 27 p. 26-27 Lesson 29 p. 62 Lesson 31 p. 104-105 Lesson 33 p. 136-137 Lesson 34 p. 156-157 Lesson 35 p. 168 **Level 4** Lesson 38 p. 9-10 Lesson 40 p. 73-74 Lesson 41 p. 82 Lesson 42 p. 108, 116 Lesson 45 p. 174 Lesson 47 p. 216

Standard 2: Students will read, write, listen, and **speak** for **literary response and expression.** Students will: converse regarding pictures, books, and experiences; role-play characters and events from stories; express feelings about works of fiction; respond to stories, legends, and songs from different cultural and ethnic groups; compare stories from personal experience with stories heard or read; express the mood or emotion of a story by using a variety of words; retell familiar stories in a logical sequence; ask for clarification of events in a story or poem; describe familiar persons, places, or objects	
Reading Roots *Teacher's Manual* **Level 1** Lesson 2 p. 22-24 Lesson 4 p. 48-49 Lesson 6 p. 93-95 Lesson 8 p. 122-123 Lesson 10 p. 154-155 Lesson 12 p. 194-195 Lesson 14 p. 227- 228 **Level 2** Lesson 17 p. 26-27 Lesson 19 p. 64-65 Lesson 21 p. 98-99 Lesson 23 p. 126 Lesson 24 p. 145-146 Lesson 25 p. 158-159	 **Level 3** Lesson 28 p. 47-48 Lesson 30 p. 80 Lesson 32 p. 117-118 Lesson 34 p. 152-153 Lesson 36 p. 188-189 Lesson 37 p. 202-203 **Level 4** Lesson 38 p. 9 Lesson 40 p. 70 Lesson 41 p. 82 Lesson 43 p. 129 Lesson 45 p. 177 Lesson 47 p. 215

Standard 3: Students will read, write, listen, and **speak** for **critical analysis and evaluation.** Students will: share what they know, want to know, and have learned about a theme or topic; express an opinion or judgment about a story, poem, poster, or advertisement; compare characters, settings, or events in two or more stories; explain personal criteria for choosing a book, poem, or story; compare and contrast different versions of the same story; explain why two different characters view the same action or event differently; compare and contrast events or characters in a story with their lives.

Reading Roots *Teacher's Manual*	
Level 1	
Lesson 1 p. 7-9	**Level 3**
Lesson 5 p. 68-69	Lesson 27 p. 26-27
Lesson 7 p. 106-107	Lesson 29 p. 62
Lesson 9 p. 138-140	Lesson 31 p. 104-105
Lesson 11 p. 172-174	Lesson 33 p. 136-137
Lesson 13 p. 208-209	Lesson 34 p. 156-157
Lesson 15 p.240-241	Lesson 35 p. 168
Level 2	**Level 4**
Lesson 16 p. 7-9	Lesson 38 p. 9-10
Lesson 18 p. 42-43	Lesson 40 p. 73-74
Lesson 20 p. 78-79	Lesson 41 p. 82
Lesson 22 p. 109-110	Lesson 42 p. 108, 116
Lesson 24 p. 145-146	Lesson 45 p. 174
Lesson 25 p. 162-163	Lesson 47 p. 216

Standard 4: Students will read, write, listen, and **speak** for **social interaction.**
Students will: participate in small or large group storytelling; share favorite anecdotes, riddles, and rhymes with peers and familiar adults; respect the age, gender, and culture of the listener; discuss the content of friendly notes, cards, letters, and personal narratives, with a partner or in a small group.

Reading Roots *Teacher's Manual*	
Level 1	
Lesson 2 p. 22-24	**Level 3**
Lesson 4 p. 48-49	Lesson 28 p. 47-48
Lesson 6 p. 93-95	Lesson 30 p. 80
Lesson 8 p. 122-123	Lesson 32 p. 117-118
Lesson 10 p. 154-155	Lesson 34 p. 152-153
Lesson 12 p. 194-195	Lesson 36 p. 188-189
Lesson 14 p. 227- 228	Lesson 37 p. 202-203

Level 2 Lesson 17 p. 26-27 Lesson 19 p. 64-65 Lesson 21 p. 98-99 Lesson 23 p. 126 Lesson 24 p. 145-146 Lesson 25 p. 158-159	**Level 4** Lesson 39 p. 45 Lesson 41 p. 89 Lesson 42 p. 104-105 Lesson 43 p. 125-126 Lesson 45 p. 177 Lesson 48 p. 235-236

Harlem Success Charter School
Science Curriculum
Grades K - 5

(Please note that the Key Ideas and Performance Indicators
are based on the New York State Science Core Curriculum,
http://www.emsc.nysed.gov/ciai/mst/pub/elecoresci.pdf)

Science process skills should be based on a series of discoveries. Students learn most effectively when they have a central role in the discovery process. To that end, NY Standards 1, 2, 6, and 7 incorporate in the Elementary Science Core Curriculum a student-centered, problem-solving approach to intermediate science.

Beginning Level Science			
Kindergarten			
Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically	Students use special mathematical notation and symbolism to communicate in mathematics and to compare and describe quantities, express relationships, and relate mathematics to their immediate environment.	Flower, Fruits, and Seeds/ 5 Senses	Use plus, minus, greater than, less than, equal to, multiplication, and division signs
		Flower, Fruits, and Seeds/ 5 Senses	Select the appropriate operation to solve mathematical problems
		Flower, Fruits, and Seeds/ 5 Senses	Apply mathematical skills to describe the natural world
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.	Balls and Ramps/ Fabric/ Earthworms	Explain verbally, graphically, or in writing the reasoning used to develop mathematical conclusions
		Balls and Ramps/ Fabric/ Earthworms	Explain verbally, graphically, or in writing patterns and relationships observed in the physical and living environment
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.	Balls and Ramps/ Fabric/ Earthworms/ Hamsters	Identify appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Observe and discuss objects and events
			Articulate questions based on observations
	Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Identify similarities and differences between explanations received from others or in print and personal observations or understandings

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Express a tentative explanation or description which can be tested
Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations that they have helped formulate.	Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Identify and select materials to be used and steps to follow to conduct the investigation

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students share their research plans with others and revise them based on their suggestions	Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Explain the steps of a plan to others, actively listening to their suggestions for possible modification of the plan, seeking clarification and understanding of the suggestions and modifying the plan where appropriate
	Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities, such as length, mass, volume, temperature, and time	Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Use appropriate "inquiry and process skills" to collect data
		Flowers, Fruits, and Seeds/ Trees/ Earthworms/ Hamsters/ Balls and Ramps	Record observations accurately and concisely
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Erthworms/ Hamsters/ Balls and Ramps/ Fabrics	Accurately transfer data from a science journal or notes to appropriate graphic organizer
	Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Erthworms/ Hamsters/ Balls and Ramps/ Fabrics	State, orally and in writing, any inferences or generalizations indicated by the data collected
	Students share their findings with others and actively seek their interpretations and ideas	5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Erthworms/ Hamsters/ Balls and Ramps/ Fabrics	Explain their findings to others, and actively listen to suggestions for possible interpretations and ideas
		5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Erthworms/ Hamsters/ Balls and Ramps/ Fabrics	State, orally and in writing, any inferences or generalizations indicated by the data, with appropriate modifications of their original prediction/explanation
		5 Senses/ Flowers, Fruits, and Seeds/ Trees/ Erthworms/ Hamsters/ Balls	State, orally and in writing, any new questions that arise from their investigation
Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved	Balls and Ramps	Identify a simple/common object which might be improved and state the purpose of the improvement
		Balls and Ramps	Identify features of an object that help or hinder the performance of the object

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Balls and Ramps	Suggest ways the object can be made differently, fixed, or improved within given constraints
		Balls and Ramps	Identify appropriate questions to ask about the design of an object
		Balls and Ramps	Identify the appropriate resources to use to find out about the design of an object
		Balls and Ramps	Describe prior designs of the object
		Balls and Ramps	List possible solutions, applying age-appropriate math and science skills
		Balls and Ramps	Develop and apply criteria to evaluate possible solutions

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Balls and Ramps	Select a solution consistent with given constraints and explain why it was chosen
		Balls and Ramps	Create a grade-appropriate graphic or plan listing all materials needed, showing sizes of parts, indicating how things will fit together, and detailing steps for assembly
		Balls and Ramps	Build a model of the object, modifying the plan as necessary
		Balls and Ramps	Determine a way to test the finished solution or model
		Balls and Ramps	Perform the test and record the results, numerically and/or graphically
		Balls and Ramps	Analyze results and suggest how to improve the solution or model, using oral, graphic, or written formats

Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound		Use computer technology, traditional paper-based resources, and interpersonal discussions to learn, do, and share in the classroom. Select appropriate hardware and software that aids in word processing, creating databases, telecommunications, graphing, data display, and other tasks. Use information technology to link the classroom to world events.
	Students telecommunicate a message to a distant location with teacher help		
	Students access needed information from printed media, electronic databases, and community resources		
Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students describe the uses of information systems in homes, schools, and businesses		Use a variety of media to access scientific information. Consult several sources of information and points of view before drawing conclusions. Identify and report sources in oral and written communication.
	Students understand that computers are used to store personal information.		
	Students demonstrate ability to evaluate information		
Information technology can have positive and negative impacts on society, depending upon how it is used.	Students describe the uses of information systems in homes and schools		Demonstrate an ability to critically evaluate information and misinformation. Recognize the impact of information technology on the daily life of students.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students demonstrate an ability to evaluate information critically		

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students describe patterns of daily, monthly, and seasonal changes in their environment		Natural cycles and patterns include: *Earth spinning around once every 24 hours (rotation), resulting in day and night
			Humans organize time into units based on natural motions of Earth: *second, minute, hour *week,
			The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.
Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students describe the relationships among air, water, and land on Earth		Weather is the condition of the outside air at a particular moment
			Weather can be described and measured by: temperature, wind speed and direction, form and amount of precipitation, general sky conditions (cloudy, sunny, partly cloudy)
			Water is recycled by natural processes on Earth. *evaporation: changing of water (liquid) into water vapor (gas)

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
			Erosion and deposition result from the interaction among air, water, and land. *interaction between air and water breaks down earth materials
			Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students describe chemical and physical changes, including changes in states of matter		Matter exists in three states: solid, liquid, gas. *solids have a definite shape and volume *liquids do not have a definite shape but have a definite volume *gases do not hold their shape or volume
			Temperature can affect the state of matter of a substance
			Changes in the properties or materials of objects can be observed and described
Energy exists in many forms, and when these forms change energy is conserved	Students describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy		Energy exists in various forms: heat, electric, sound, chemical, mechanical, light
			Energy can be transferred from one place to another
			Some materials transfer energy better than others (heat and electricity).
			Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
			Electricity travels in a closed circuit
			Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another
			Interactions with forms of energy can be either helpful or harmful
	Students observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy.)		* Content (Energy and its Forms) Everyday events involve one form of energy being changed to another.animals convert food to heat and motion *the Sun's energy warms the air and water
			Humans utilize interactions between matter and energy *chemical to electrical, light, and heat: battery and bulb *electrical to sound (e.g., doorbell buzzer)

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Energy and matter interact through forces that result in changes in motion.	Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.	Balls and Ramps	The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).
		Balls and Ramps	The position or direction of motion of an object can be changed by pushing or pulling.
		Balls and Ramps	The force of gravity pulls objects toward the center of Earth
		Balls and Ramps	The amount of change in the motion of an object is affected by friction.
		Balls and Ramps	Magnetism is a force that may attract or repel certain materials
		Balls and Ramps	Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes
	Students describe how forces can operate across distances	Balls and Ramps	The forces of gravity and magnetism can affect objects through gases, liquids, and solids
		Balls and Ramps	The force of magnetism on objects decreases as distance increases
Living things are both similar to and different from each other and from nonliving things	Students describe the characteristics of and variations between living and nonliving things	Earthworms/ Hamsters/ Trees	Animals need air, water, and food in order to live and thrive
		Trees	Plants require air, water, nutrients, and light in order to live and thrive.
		Earthworms/ Hamsters/ Trees	Nonliving things do not live and thrive
		Earthworms/ Hamsters/ Trees	Nonliving things can be human-created or naturally occurring

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students describe the life processes common to all living things	Earthworms/ Hamsters/ Trees	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die
Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students recognize that traits of living things are both inherited and acquired or learned	Earthworms/ Hamsters/ Trees	Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).
		Earthworms/ Hamsters/ Trees	Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
	Students recognize that for humans and other living things there is genetic continuity between generations	Earthworms/ Hamsters/ Trees	Plants and animals closely resemble their parents and other individuals in their species
		Earthworms/ Hamsters/ Trees	Plants and animals can transfer specific traits to their offspring when they reproduce
Individual organisms and species change over time	Students describe how the structures of plants and animals complement the environment of the plant or animal	Earthworms/ Hamsters/ Trees	Each animal has different structures that serve different functions in growth, survival, and reproduction. *wings, legs, or fins enable some animals to seek shelter and escape predators *the mouth, including teeth, jaws,
		Earthworms/ Hamsters/ Trees	Each plant has different structures that serve different functions in growth, survival, and reproduction. *roots help support the plant and take in water and nutrients *leaves help plants utilize sunlight to make food for the plant *stems, stalks, trunks, and other similar structures provide support for the plant *some plants have flowers *flowers are reproductive structures of plants that produce fruit which contains seeds *seeds contain stored food that aids in germination and the growth of young plants
			In order to survive in their environment, plants and animals must be adapted to that environment. *seeds disperse by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals *leaf, flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture *animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration
	Students observe that differences within a species may give individuals an advantage in surviving and reproducing	Earthworms/ Hamsters/ Trees	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.
		Earthworms/ Hamsters/ Trees	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing
The continuity of life is sustained through reproduction and development	Students describe the major stages in the life cycles of selected plants and animals	Earthworms/ Hamsters/ Trees	Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters/ Trees	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.
		Earthworms/ Hamsters/ Trees	The length of time from beginning of development to death of the plant is called its life span.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters/ Trees	Life cycles of some plants include changes from seed to mature plant.
		Earthworms/ Hamsters/ Trees	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult
		Earthworms/ Hamsters/ Trees	Each kind of animal goes through its own stages of growth and development during its life span.
		Earthworms/ Hamsters/ Trees	The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary
	Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises	Earthworms/ Hamsters/ Trees	Growth is the process by which plants and animals increase in size.
		Earthworms/ Hamsters/ Trees	Food supplies the energy and materials necessary for growth and repair
Organisms maintain a dynamic equilibrium that sustains life.	Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).	Earthworms/ Hamsters/ Trees	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.
		Earthworms/ Hamsters/ Trees	An organism's external physical features can enable it to carry out life functions in its particular environment
	Students describe some survival behaviors of common living specimens	Flowers, Fruits, and Seeds/ Trees	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters	Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).
		5 Senses/ Earthworms/ Hamsters	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment
		Earthworms/ Hamsters	Some animals, including humans, move from place to place to meet their needs.
		Earthworms/ Hamsters	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.
		Earthworms/ Hamsters/ Trees	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight
	Students describe the factors that help promote good health and growth in humans	5 Senses	Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.
			Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise
Plants and animals depend on each other and their physical environment	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment		Green plants are producers because they provide the basic food supply for themselves and animals
		Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	All animals depend on plants. Some animals (predators) eat other animals (prey).
		Earthworms/ Hamsters	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain
		Trees/ Flowers, Fruits, and Seeds/ Earthworms	Decomposers are living things that play a vital role in recycling nutrients
		Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations
	Students describe the relationship of the sun as an energy source for living and nonliving cycles	Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	* Content (Living and Nonliving Things; Life Processes; Growth, Repair and Maintenance; Basic Life Functions) Plants manufacture food by utilizing air, water, and energy from the Sun.
		Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	The Sun's energy is transferred on Earth from plants to animals through the food chain.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
		Earthworms/ Hamsters/ Trees/ Flowers, Fruits, and Seeds	Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).
Human decisions and activities have had a profound impact on the physical and living environment	Students identify ways in which humans have changed their environments and the effects of those changes	Trees	Humans depend on their natural and constructed environments.
		Trees	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities
		Trees	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students observe and describe interactions among components of simple systems	Balls and Ramps	Work together to build a tower. Record stories, songs and conversation to demonstrate various scientific concepts.
	Students identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).	Trees/ Flowers, Fruits, and Seeds	
Models are simplified representations of objects,	Students analyze, construct, and operate models in order to	Trees	
	Students discover that a model of something is different from the real thing but can be used to study the real thing	Trees	
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements	Hamsters/ Flowers, Fruits, and Seeds/ Fabric	Observe that things in nature and things that people make have very different sizes, weights, and ages
	Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior	Hamsters/ Flowers, Fruits, and Seeds/ Fabric	Recognize that almost anything has limits on how big or small it can be
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students cite examples of systems in which some features stay the same while other features change	Hamsters/ Flowers, Fruits, and Seeds/ Fabric/ Earthworms	Observe that things change in some ways and stay the same in some ways. Recognize that things can change in different ways such as size, weight, color, and movement. Some small changes can be detected by taking measurements.
	Students distinguish between reasons for stability, from lack of changes to changes that counterbalance one another, to changes within cycles	Earthworms	

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data	Earthworms/ Flowers, Fruits, and Seeds/ Fabric/ Balls and Ramps	
In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints of a simple decision-making problem	Balls and Ramps	Choose the best alternative from a set of solutions under given constraints. Explain the criteria used in selecting a solution orally and in writing
	Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.	Flowers, Fruits, and Seeds	

Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action	Trees	Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working alone or as part of a group *Gathering and Processing Information- accessing information from printed media, electronic databases, and community resources; using the information to develop a definition of the problem and to research possible solutions *Generating and Analyzing Ideas- developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data *Common Themes- observing examples of common unifying themes,
	Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice	Fabric/ Flowers, Fruits, and Seeds/ Trees	

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Maj r Unde standings/ Concepts Covered
	Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute	Trees	applying them to the problem, and using them to better understand the dimensions of the problem *Realizing Ideas- constructing components or models, arriving at a solution, and evaluating the results *Presenting Results- using a variety of media to present the solution and to communicate the results
	Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions	Balls and Ramps/ Fabric/ Flowers, Fruits, and Seeds	

Beginning Level Science			
Grade 1			
Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically	Students use special mathematical notation and symbolism to communicate in mathematics and to compare and describe quantities, express relationships, and relate mathematics to their immediate environment.	Measurement	Use plus, minus, greater than, less than, equal to, multiplication, and division signs
		Measurement	Select the appropriate operation to solve mathematical problems
		Measurement	Apply mathematical skills to describe the natural world
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.	Paper Towel Testing/ Aerodynamics/ Measurement	Explain verbally, graphically, or in writing the reasoning used to develop mathematical conclusions
		Paper Towel Testing/ Aerodynamics/ Measurement	Explain verbally, graphically, or in writing patterns and relationships observed in the physical and living environment
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.	Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing) Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	Mealworms/ Snails/ Seed Germination/ Teeth/ Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Observe and discuss objects and events and record observations
		Mealworms/ Snails/ Seed Germination/ Teeth/ Paper Towel Testing	Articulate appropriate questions based on observations

	Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings	Paper Towel Testing	# Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Identify similarities and differences between explanations received from others or in print and personal observations or understandings
	Students develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed	Paper Towel Testing	# Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Clearly express a tentative explanation or description which can be tested

Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations that they have helped formulate.	Seed Germination/ Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Indicate materials to be used and steps to follow to conduct the investigation and describe how data will be recorded (journal, dates and times, etc.)
	Students share their research plans with others and revise them based on their suggestions	Seed Germination/ Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Explain the steps of a plan to others, actively listening to their suggestions for possible modification of the plan, seeking clarification and understanding of the suggestions and modifying the plan where appropriate
	Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities, such as length, mass, volume, temperature, and time	Seed Germination/ Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) Use appropriate "inquiry and process skills" to collect data
		Seed Germination/ Paper Towel Testing	Record observations accurately and concisely
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables	Measurements/ Paper Towel Testing/ Seed Germination	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing, Interpreting) Accurately transfer data from a science journal or notes to appropriate graphic organizer
	Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	Measurements/ Paper Towel Testing/ Seed Germination	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing, Interpreting) State, orally and in writing, any inferences or generalizations indicated by the data collected
	Students share their findings with others and actively seek their interpretations and ideas	Measurements/ Paper Towel Testing/ Seed Germination	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing, Interpreting) Explain their findings to others, and actively listen to suggestions for possible interpretations and ideas
		Measurements/ Paper Towel Testing/ Seed Germination	State, orally and in writing, any inferences or generalizations indicated by the data, with appropriate modifications of their original prediction/explanation
		Measurements/ Paper Towel Testing/ Seed Germination	State, orally and in writing, any new questions that arise from their investigation
Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved	Aerodynamics/ Paper Towel Testing	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing, Interpreting) * Content (How People Use Technology to Solve Problems) Identify a simple/common object which might be improved and state the purpose of the improvement

		Aerodynamics/ Paper Towel Testing	Identify features of an object that help or hinder the performance of the object
		Aerodynamics/ Paper Towel Testing	Suggest ways the object can be made differently, fixed, or improved within given constraints
		Aerodynamics/ Paper Towel Testing	Identify appropriate questions to ask about the design of an object
		Aerodynamics/ Paper Towel Testing	Identify the appropriate resources to use to find out about the design of an object

		Aerodynamics/ Paper Towel Testing	Describe prior designs of the object
			List possible solutions, applying age-appropriate math and science skills
			Develop and apply criteria to evaluate possible solutions
			Select a solution consistent with given constraints and explain why it was chosen
			Create a grade-appropriate graphic or plan listing all materials needed, showing sizes of parts, indicating how things will fit together, and detailing steps for assembly
			Build a model of the object, modifying the plan as necessary
			Determine a way to test the finished solution or model
			Perform the test and record the results, numerically and/or graphically
			Analyze results and suggest how to improve the solution or model, using oral, graphic, or written formats
Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound		* Content (Choose Appropriate Resources for Technology Systems) Use computer technology, traditional paper-based resources, and interpersonal discussions to learn, do, and share in the classroom.
	Students telecommunicate a message to a distant location with teacher help		
	Students access needed information from printed media, electronic databases, and community resources		
Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students describe the uses of information systems in homes, schools, and businesses		* Content (Choose Appropriate Resources for Technology Systems) Use a variety of media to access scientific information. Consult several sources of information and points of view before drawing conclusions.
	Students understand that computers are used to store personal information.		
	Students demonstrate ability to evaluate information		

Information technology can have positive and negative impacts on society, depending upon how it is used.	Students describe the uses of information systems in homes and schools		* Content (Choose Appropriate Resources for Technology Systems) Distinguish fact from fiction (presenting opinion as fact is contrary to the scientific process). Demonstrate an ability to critically evaluate information and misinformation.
	Students demonstrate an ability to evaluate information critically		

Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students describe patterns of daily, monthly, and seasonal changes in their environment	Mealworms/ Seed Germination	* Content (Cycles and Patterns) Natural cycles and patterns include: *Earth spinning around once every 24 hours (rotation), resulting in day and night
			Humans organize time into units based on natural motions of Earth: *second, minute, hour *week
			The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.
Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students describe the relationships among air, water, and land on Earth	Seed Germination	* Content (Cycles and Patterns; Earth Changes Over Time) Weather is the condition of the outside air at a particular moment
			Weather can be described and measured by: temperature, wind speed and direction, form and amount of precipitation, general sky conditions (cloudy, sunny, partly cloudy)
			Water is recycled by natural processes on Earth. *evaporation: changing of water (liquid) into water vapor (gas)
			Erosion and deposition result from the interaction among air, water, and land. *interaction between air and water breaks down earth materials
			Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things
Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	Students observe and describe properties of materials using appropriate tools		* Content (Properties of Matter) Matter takes up space and has mass. Two objects cannot occupy the same place at the same time.

			Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.
		Measurement	Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light

		Measurement	Measurements can be made with standard metric units and nonstandard units. (Note: Exceptions to the metric system usage are found in meteorology.)
			The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit
		Seed Germination/ Bones and Dinosaurs	Objects and/or materials can be sorted or classified according to their properties.
		Aerodynamics/ Paper Towel Testing	Some properties of an object are dependent on the conditions of the present surroundings in which the object exists. For example: *temperature - hot or cold
	Students describe chemical and physical changes, including changes in states of matter		* Content (Properties of Matter; State of Matter) Matter exists in three states: solid, liquid, gas. *solids have a definite shape and volume *liquid
			Temperature can affect the state of matter of a substance
			Changes in the properties or materials of objects can be observed and described
Energy exists in many forms, and when these forms change energy is conserved	Students describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy	Seed Germination	* Content (Energy and its Forms and Forces) Energy exists in various forms: heat, electric, sound, chemical, mechanical, light
			Energy can be transferred from one place to another
			Some materials transfer energy better than others (heat and electricity).
		Seed Germination	Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light
			Electricity travels in a closed circuit
			Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another

			Interactions with forms of energy can be either helpful or harmful
	Students observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy.)		* Content (Energy and its Forms and Forces) Everyday events involve one form of energy being changed to another.animals convert food to heat and motion *the Sun's energy warms the air and water

			Humans utilize interactions between matter and energy *chemical to electrical, light, and heat: battery and
Energy and matter interact through forces that result in changes in motion.	Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.	Aerodynamics	* Content (Energy and its Forms and Forces; Force and Motion) The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).
		Aerodynamics	The position or direction of motion of an object can be changed by pushing or pulling.
		Aerodynamics	The force of gravity pulls objects toward the center of Earth
		Aerodynamics	The amount of change in the motion of an object is affected by friction.
		Aerodynamics	Magnetism is a force that may attract or repel certain materials
		Aerodynamics	Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes
	Students describe how forces can operate across distances	Aerodynamics	* Content (Force and Motion) The forces of gravity and magnetism can affect objects through gases, liquids, and solids
		Aerodynamics	The force of magnetism on objects decreases as distance increases
Living things are both similar to and different from each other and from nonliving things	Students describe the characteristics of and variations between living and nonliving things	Mealworms/ Snails/ Bones and Dinosaurs	* Content (Plants and Animals have Similarities Such as Their Basic Needs, Ability to Grow, Change and Die) Animals need air, water, and food in order to live and thrive
		Seed Germination	Plants require air, water, nutrients, and light in order to live and thrive.
		Mealworms/ Snails/ Bones and Dinosaurs	Nonliving things do not live and thrive
		Mealworms/ Snails/ Bones and Dinosaurs/ Seed Germination	Nonliving things can be human-created or naturally occurring
	Students describe the life processes common to all living things	Mealworms/ Snails/ Seed Germination	* Content (Plants and Animals have Similarities Such as Their Basic Needs, Ability to Grow, Change and Die) Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die

Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students recognize that traits of living things are both inherited and acquired or learned	Mealworms/ Snails	* Content (Plants and Animals have Similarities Such as Their Basic Needs, Ability to Grow, Change and Die; Plant and Animal Structures) Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).
		Mealworms/ Snails	Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).

	Students recognize that for humans and other living things there is genetic continuity between generations	Mealworms/ Snails	* Content (Plants and Animals have Similarities Such as Their Basic Needs, Ability to Grow, Change and Die; Plant and Animal Structures) Plants and animals closely resemble their parents and other individuals in their species
			Plants and animals can transfer specific traits to their offspring when they reproduce
Individual organisms and species change over time	Students describe how the structures of plants and animals complement the environment of the plant or animal	Seed Germination	* Content (Animals and Plants have Structures that Help Them Meet Their Needs) Each animal has different structures that serve different functions in growth, survival, and reproduction. *wings, legs, or fins enable some animals to seek shelter and escape predators
		Seed Germination	Each plant has different structures that serve different functions in growth, survival, and reproduction. *roots help support the plant and take in water and nutrients
		Seed Germination	In order to survive in their environment, plants and animals must be adapted to that environment. *seeds disperse by a plant's own mechanism and/or in a variety of ways that can in
	Students observe that differences within a species may give individuals an advantage in surviving and reproducing	Mealworms/ Seed Germination	* Content (Animals and Plants have Structures that Help Them Meet Their Need; Animals and Plants Must Adapt to Their Environment in Order to Survive.) Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.
		Mealworms/ Seed Germination	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing
The continuity of life is sustained through reproduction and development	Students describe the major stages in the life cycles of selected plants and animals	Mealworms/ Seed Germination/ Snails	* Content (Life Cycles of Organisms) Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.
		Seed Germination	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.
		Seed Germination	The length of time from beginning of development to death of the plant is called its life span.
		Seed Germination	Life cycles of some plants include changes from seed to mature plant.

		Mealworms/ Snails	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult
		Mealworms/ Snails	Each kind of animal goes through its own stages of growth and development during its life span.
		Mealworms/ Snails	The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary

	Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises	Teeth/ Mealworms	* Content (Life Cycles of Organisms; Growth of Organisms) Growth is the process by which plants and animals increase in size.
		Teeth/ Mealworms	Food supplies the energy and materials necessary for growth and repair
Organisms maintain a dynamic equilibrium that sustains life.	Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).	Mealworms/ Snails/ Seed Germination	* Content (All Organisms have Basic Life Functions) All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.
		Mealworms/ Snails/ Seed Germination	An organism's external physical features can enable it to carry out life functions in its particular environment
	Students describe some survival behaviors of common living specimens	Mealworms/ Snails/ Seed Germination	* Content (Survival Behavior of Organisms) Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate
		Mealworms/ Snails/ Seed Germination	Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).
		Mealworms/ Snails/ Seed Germination	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment
		Mealworms/ Snails/ Seed Germination	Some animals, including humans, move from place to place to meet their needs.
		Mealworms/ Snails/ Seed Germination	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur
		Mealworms/ Snails/ Seed Germination	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.
		Mealworms/ Snails/ Seed Germination	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight
	Students describe the factors that help promote good health and growth in humans	Teeth	* Content (Health and Growth in Humans) Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.

		Teeth	Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise
Plants and animals depend on each other and their physical environment	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment	Seed Germination	* Content (Interdependence of Plants and Animals) Green plants are producers because they provide the basic food supply for themselves and animals
		Mealworms/ Snails	All animals depend on plants. Some animals (predators) eat other animals (prey).

		Mealworms/ Snails	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain
		Mealworms/ Snails	Decomposers are living things that play a vital role in recycling nutrients
		Mealworms/ Snails	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment
		Mealworms/ Snails	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations
	Students describe the relationship of the sun as an energy source for living and nonliving cycles	Seed Germination	* Content (The Sun is a Source of Energy) Plants manufacture food by utilizing air, water, and energy from the Sun.
		Seed Germination	The Sun's energy is transferred on Earth from plants to animals through the food chain.
		Seed Germination	Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).
Human decisions and activities have had a profound impact on the physical and living environment	Students identify ways in which humans have changed their environments and the effects of those changes		* Content (Human Impact on Environment) Humans depend on their natural and constructed environments.
			Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities
			Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms

Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students observe and describe interactions among components of simple systems		* Content (Using Systems to Solve Problems; How People Use Technology to Solve Problems) Work together to build a tower. Record stories, songs and conversation to demonstrate various scientific concepts.
	Students identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).		
Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design	Students analyze, construct, and operate models in order to discover attributes of the real thing		
	Students discover that a model of something is different from the real thing but can be used to study the real thing		
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements	Paper Towel Testing/ Snails/ Mealworms	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) * Content (Using Systems to Solve Problems) Observe that things in nature and things that people make have very different sizes, weights, and ages
	Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior	Snails/ Mealworms	* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) * Content (Using Systems to Solve Problems) Recognize that almost anything has limits on how big or small it can be
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students cite examples of systems in which some features stay the same while other features change		* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) * Content (Using Systems to Solve Problems) Observe that things change in some ways and stay the same in some ways. Recognize that things can change in different ways such as size, weight, color, and movement. Some small changes can be detected by taking measurements.
	Students distinguish between reasons for stability, from lack of changes to changes that counterbalance one another, to changes within cycles	Mealworms	

Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data	Measurements	
In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints of a simple decision-making problem		* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) * Content (Using Systems to Solve Problems) Choose the best alternative from a set of solutions under given constraints. Explain the criteria used in selecting a solution orally and in writing

	Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.	Paper Towel Testing	
Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action		* Content (Using Systems to Solve Problems; How People Use Technology to Solve Problems) * Content (Problem Solving) Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working alone or as part of a group *Gathering and Processing Information- accessing information from printed media, electronic databases, and community resources; using the information to develop a definition of the problem and to research possible solutions *Generating and Analyzing Ideas- developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data *Common Themes- observing examples of common unifying themes, applying them to the problem, and using them to better understand the dimensions of the problem *Realizing Ideas- constructing components or models, arriving at a solution, and evaluating the results *Presenting Results- using a variety of media to present the solution and to communicate the results
	Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice		
	Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute		
	Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions		

Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results.			

Beginning Level Science

Grade 2

Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically	Students use special mathematical notation and symbolism to communicate in mathematics and to compare and describe quantities, express relationships, and relate mathematics to their immediate environment.		Use plus, minus, greater than, less than, equal to, multiplication, and division signs
			Select the appropriate operation to solve mathematical problems
			Apply mathematical skills to describe the natural world
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.	Sink and Float	Explain verbally, graphically, or in writing the reasoning used to develop mathematical conclusions
		Sink and Float	Explain verbally, graphically, or in writing patterns and relationships observed in the physical and living environment
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.	Sink and Float/ Light and Shadows/ Rocks and Minerals	Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Observe and discuss objects and events and record observations
		Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant	Articulate appropriate questions based on observations
	Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Identify similarities and differences between explanations received from others or in print and personal observations or understandings

	Students develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Clearly express a tentative explanation or description which can be tested

Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations that they have helped formulate.	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Indicate materials to be used and steps to follow to conduct the investigation and describe how data will be recorded (journal, dates and times, etc.)
	Students share their research plans with others and revise them based on their suggestions	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Explain the steps of a plan to others, actively listening to their suggestions for possible modification of the plan, seeking clarification and understanding of the suggestions and modifying the plan where appropriate
	Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities, such as length, mass, volume, temperature, and time	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Use appropriate "inquiry and process skills" to collect data
		Sink and Float/ Light and Shadows/ Rocks and Minerals/	Record observations accurately and concisely
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Accurately transfer data from a science journal or notes to appropriate graphic organizer
	Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	State, orally and in writing, any inferences or generalizations indicated by the data collected
	Students share their findings with others and actively seek their interpretations and ideas MST1.E.SI3C:	Sink and Float/ Light and Shadows/ Rocks and Minerals/ Crickets/ Insects/ Plant Requirements/ Sound	Explain their findings to others, and actively listen to suggestions for possible interpretations and ideas
			State, orally and in writing, any inferences or generalizations indicated by the data, with appropriate modifications of their original prediction/explanation
			State, orally and in writing, any new questions that arise from their investigation
Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved	Sink and Float	Identify a simple/common object which might be improved and state the purpose of the improvement
		Sink and Float	Identify features of an object that help or hinder the performance of the object
		Sink and Float	Suggest ways the object can be made differently, fixed, or improved within given constraints

		Sink and Float	Identify appropriate questions to ask about the design of an object
		Sink and Float	Identify the appropriate resources to use to find out about the design of an object
		Sink and Float	Describe prior designs of the object
		Sink and Float	List possible solutions, applying age-appropriate math and science skills

		Sink and Float	Develop and apply criteria to evaluate possible solutions
		Sink and Float	Select a solution consistent with given constraints and explain why it was chosen
		Sink and Float	Create a grade-appropriate graphic or plan listing all materials needed, showing sizes of parts, indicating how things will fit together, and detailing steps for assembly
		Sink and Float	Build a model of the object, modifying the plan as necessary
		Sink and Float	Determine a way to test the finished solution or model
		Sink and Float	Perform the test and record the results, numerically and/or graphically
		Sink and Float	Analyze results and suggest how to improve the solution or model, using oral, graphic, or written formats

Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound	Sound	Use computer technology, traditional paper-based resources, and interpersonal discussions to learn, do, and share in the classroom.
	Students telecommunicate a message to a distant location with teacher help	Sound	
	Students access needed information from printed media, electronic databases, and community resources	Rocks and Minerals	
Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students describe the uses of information systems in homes, schools, and businesses		Use a variety of media to access scientific information. Consult several sources of information and points of view before drawing conclusions.
	Students understand that computers are used to store personal information.		
	Students demonstrate ability to evaluate information		
Information technology can have positive and negative impacts on society, depending upon how it is used.	Students describe the uses of information systems in homes and schools		Demonstrate an ability to critically evaluate information and misinformation
	Students demonstrate an ability to evaluate information critically		

Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students describe patterns of daily, monthly, and seasonal changes in their environment	Light and Shadow	Natural cycles and patterns include: *Earth spinning around once every 24 hours (rotation), resulting in day and night
			Humans organize time into units based on natural motions of Earth: *second, minute, hour *week,
			The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.
Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students describe the relationships among air, water, and land on Earth	Plant Requirements	Weather is the condition of the outside air at a particular moment
			Weather can be described and measured by: temperature, wind speed and direction, form and amount of precipitation, general sky conditions (cloudy, sunny, partly cloudy)
			Water is recycled by natural processes on Earth. *evaporation: changing of water (liquid) into water vapor (gas)
		Rocks and Mineral	Erosion and deposition result from the interaction among air, water, and land. *interaction between air and water breaks down earth materials
		Rocks and Mineral	Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things
Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	Students observe and describe properties of materials using appropriate tools		Matter takes up space and has mass. Two objects cannot occupy the same place at the same time.
		Rocks and Minerals	Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.

		Rocks and Minerals	Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light
			Measurements can be made with standard metric units and nonstandard units. (Note: Exceptions to the metric system usage are found in meteorology.)

		Rocks and Mineral/ Sink and Float	The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit
		Rocks and Mineral/ Sink and Float	Objects and/or materials can be sorted or classified according to their properties.
			Some properties of an object are dependent on the conditions of the present surroundings in which the object exists. For example: *temperature - hot or cold
	Students describe chemical and physical changes, including changes in states of matter		Matter exists in three states: solid, liquid, gas. *solids have a definite shape and volume *liquid
			Temperature can affect the state of matter of a substance
			Changes in the properties or materials of objects can be observed and described
Energy exists in many forms, and when these forms change energy is conserved	Students describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy	Sound	Energy exists in various forms: heat, electric, sound, chemical, mechanical, light
		Sound	Energy can be transferred from one place to another
		Sound	Some materials transfer energy better than others (heat and electricity).
			Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light
			Electricity travels in a closed circuit
			Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another

			Interactions with forms of energy can be either helpful or harmful
	Students observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy.)		* Content (Energy Exists in Many Forms) Everyday events involve one form of energy being changed to another.animals convert food to heat and motion *the Sun's energy warms the air and water

			Humans utilize interactions between matter and energy *chemical to electrical, light, and heat: battery and bulb
Energy and matter interact through forces that result in changes in motion.	Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.		The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).
			The position or direction of motion of an object can be changed by pushing or pulling.
			The force of gravity pulls objects toward the center of Earth
			The amount of change in the motion of an object is affected by friction.
			Magnetism is a force that may attract or repel certain materials
			Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes
	Students describe how forces can operate across distances		The forces of gravity and magnetism can affect objects through gases, liquids, and solids
			The force of magnetism on objects decreases as distance increases
Living things are both similar to and different from each other and from nonliving things	Students describe the characteristics of and variations between living and nonliving things	Plant Requirements	Animals need air, water, and food in order to live and thrive
		Plant Requirements	Plants require air, water, nutrients, and light in order to live and thrive.
		Plant Requirements/ Crickets/ Insects	Nonliving things do not live and thrive
		Plant Requirements/ Crickets/ Insects	Nonliving things can be human-created or naturally occurring
	Students describe the life processes common to all living things	Plant Requirements/ Crickets/ Insects	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die

Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students recognize that traits of living things are both inherited and acquired or learned	Plant Requirements/ Crickets/ Insects	* Content (Plants and Animals have Similarities Such as Their Basic Needs, Ability to Grow, Change and Die; Plant and Animal Structures, Adaptations to Environment) Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).
		Plant Requirements/ Crickets/ Insects	Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).

	Students recognize that for humans and other living things there is genetic continuity between generations	Plant Requirements/ Crickets/ Insects	Plants and animals closely resemble their parents and other individuals in their species
		Crickets/ Insects	Plants and animals can transfer specific traits to their offspring when they reproduce
Individual organisms and species change over time	Students describe how the structures of plants and animals complement the environment of the plant or animal	Plant Requirements/ Crickets/ Insects	Each animal has different structures that serve different functions in growth, survival, and reproduction. *wings, legs, or fins enable some animals to seek shelter and escape predators
		Plant Requirements/ Crickets/ Insects	Each plant has different structures that serve different functions in growth, survival, and reproduction. *roots help support the plant and take in water and nutrients
		Plant Requirements/ Crickets/ Insects	In order to survive in their environment, plants and animals must be adapted to that environment. *seeds disperse by a plant's own mechanism and/or in a variety of ways that can in
	Students observe that differences within a species may give individuals an advantage in surviving and reproducing	Plant Requirements/ Crickets/ Insects	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.
		Plant Requirements/ Crickets/ Insects	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing
The continuity of life is sustained through reproduction and development	Students describe the major stages in the life cycles of selected plants and animals	Crickets/ Insects	Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.
		Plant Requirements	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.
		Plant Requirements	The length of time from beginning of development to death of the plant is called its life span.
		Plant Requirements	Life cycles of some plants include changes from seed to mature plant.

		Plant Requirements/ Crickets/ Insects	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult
		Plant Requirements/ Crickets/ Insects	Each kind of animal goes through its own stages of growth and development during its life span.

		Plant Requirements/ Crickets/ Insects	The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary
	Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises	Plant Requirements/ Crickets/ Insects	Growth is the process by which plants and animals increase in size.
		Plant Requirements/ Crickets/ Insects	Food supplies the energy and materials necessary for growth and repair
Organisms maintain a dynamic equilibrium that sustains life.	Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).	Plant Requirements/ Crickets/ Insects	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.
		Plant Requirements/ Crickets/ Insects	An organism's external physical features can enable it to carry out life functions in its particular environment
	Students describe some survival behaviors of common living specimens	Plant Requirements/ Crickets/ Insects	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves fo
		Plant Requirements/ Crickets/ Insects	Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).
		Plant Requirements/ Crickets/ Insects	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment
		Plant Requirements/ Crickets/ Insects	Some animals, including humans, move from place to place to meet their needs.
		Plant Requirements/ Crickets/ Insects	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur
		Plant Requirements/ Crickets/ Insects	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.
		Plant Requirements/ Crickets/ Insects	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight

	Students describe the factors that help promote good health and growth in humans		Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.
			Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise

Plants and animals depend on each other and their physical environment	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment	Plant Requirements	Green plants are producers because they provide the basic food supply for themselves and animals
		Plant Requirements/ Insects/ Crickets	All animals depend on plants. Some animals (predators) eat other animals (prey).
		Plant Requirements/ Insects/ Crickets	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain
		Plant Requirements/ Insects/ Crickets	Decomposers are living things that play a vital role in recycling nutrients
		Plant Requirements/ Insects/ Crickets	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment
		Plant Requirements/ Insects/ Crickets	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations
	Students describe the relationship of the sun as an energy source for living and nonliving cycles	Plant Requirements	Plants manufacture food by utilizing air, water, and energy from the Sun.
		Plant Requirements	The Sun's energy is transferred on Earth from plants to animals through the food chain.
		Plant Requirements	Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).
Human decisions and activities have had a profound impact on the physical and living environment	Students identify ways in which humans have changed their environments and the effects of those changes	Rocks and Minerals	Humans depend on their natural and constructed environments.
		Rocks and Minerals	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities
		Rocks and Minerals	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms

Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students observe and describe interactions among components of simple systems		Work together to build a tower. Record stories, songs and conversation to demonstrate various scientific concepts.
	Students identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).		
Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design	Students analyze, construct, and operate models in order to discover attributes of the real thing		
	Students discover that a model of something is different from the real thing but can be used to study the real thing		
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements	Sink and Float/ Rocks and Minerals	Observe that things in nature and things that people make have very different sizes, weights, and ages
	Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior		Recognize that almost anything has limits on how big or small it can be
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students cite examples of systems in which some features stay the same while other features change	Insects/ Crickets	Observe that things change in some ways and stay the same in some ways. Recognize that things can change in different ways such as size, weight, color, and movement. Some small changes can be detected by taking measurements
	Students distinguish between reasons for stability, from lack of changes to changes that counterbalance one another, to changes within cycles	Insects/ Crickets	

Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data	Insects/ Crickets/ Rocks and Minerals	

In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints of a simple decision-making problem		* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing) * Content (Using Systems to Solve Problems) Choose the best alternative from a set of solutions under given constraints. Explain the criteria used in selecting a solution orally and in writing
	Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.		
Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action	Crickets/ Plant Requirements/ Sink and Float/ Light and Shadows/ Insects/ Sound/ Minerals and Rocks	Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working
	Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice		
	Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute	Crickets/ Plant Requirements/ Sink and Float/ Light and Shadows/ Insects/ Sound/ Minerals and Rocks	

	Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions	Crickets/ Plant Requirements/ Sink and Float/ Light and Shadows/ Insects/ Sound/ Minerals and Rocks	

Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics		Crickets/ Plant Requirements/ Sink and Float/ Light and Shadows/ Insects/ Sound/ Minerals and Rocks	

Beginning Level Science			
Grade 3			
Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically.	Students use special mathematical notation and symbolism to communicate in mathematics and to compare and describe quantities, express relationships, and relate mathematics to their immediate environment.		Use plus, minus, greater than, less than, equal to, multiplication, and division signs. Select the appropriate operation to solve mathematical problems. Apply mathematical skills to describe the natural world.
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.		Explain verbally, graphically, or in writing the reasoning used to develop mathematical conclusions
			Explain verbally, graphically, or in writing patterns and relationships observed in the physical and living environment
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.	Force and Motion	Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Observe and discuss objects and events and record observations
		Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/	Articulate appropriate questions based on observations
	Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Identify similarities and differences between explanations received from others or in print and personal observations or understandings

	Students develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Clearly express a tentative explanation or description which can be tested
Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations that they have helped formulate.	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Indicate materials to be used and steps to follow to conduct the investigation and describe how data will be recorded (journal, dates and times, etc.)

	Students share their research plans with others and revise them based on their suggestions		Explain the steps of a plan to others, actively listening to their suggestions for possible modification of the plan, seeking clarification and understanding of the suggestions and modifying the plan where appropriate
	Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities, such as length, mass, volume, temperature, and time	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Use appropriate "inquiry and process skills" to collect data
			Record observations accurately and concisely
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Accurately transfer data from a science journal or notes to appropriate graphic organizer
	Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	State, orally and in writing, any inferences or generalizations indicated by the data collected
	Students share their findings with others and actively seek their interpretations and ideas	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	Explain their findings to others, and actively listen to suggestions for possible interpretations and ideas
		Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	State, orally and in writing, any inferences or generalizations indicated by the data, with appropriate modifications of their original prediction/explanation
		Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/	State, orally and in writing, any new questions that arise from their investigation
Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved.	Simple Machines	Identify a simple/common object which might be improved and state the purpose of the improvement
		Simple Machines	Identify features of an object that help or hinder the performance of the object
		Simple Machines	Suggest ways the object can be made differently, fixed, or improved within given constraints

	Students engage in the following steps in a design process: investigate prior solutions and ideas from books, magazines, family, friends, neighbors, and community members	Simple Machines	Identify appropriate questions to ask about the design of an object
		Simple Machines	Identify the appropriate resources to use to find out about the design of an object

		Simple Machines	Describe prior designs of the object
	Students engage in the following steps in a design process: generate ideas for possible solutions, individually and through group activity; apply age-appropriate mathematics and science skills; evaluate the ideas and determine the best solution; and explain reasons for the choices	Simple Machines	List possible solutions, applying age-appropriate math and science skills
		Simple Machines	Develop and apply criteria to evaluate possible solutions
		Simple Machines	Select a solution consistent with given constraints and explain why it was chosen
	Students engage in the following steps in a design process: plan and build, under supervision, a model of the solution using familiar materials, processes, and hand tools	Simple Machines	Create a grade-appropriate graphic or plan listing all materials needed, showing sizes of parts, indicating how things will fit together, and detailing steps for assembly
		Simple Machines	Build a model of the object, modifying the plan as necessary
	Students engage in the following steps in a design process: discuss how best to test the solution; perform the test under teacher supervision; record and portray results through numerical and graphic means; discuss orally why things worked or didn't work; and summarize results in writing, suggesting ways to make the solution better	Simple Machines	Determine a way to test the finished solution or model
		Simple Machines	Perform the test and record the results, numerically and/or graphically
		Simple Machines	Analyze results and suggest how to improve the solution or model, using oral, graphic, or written formats

Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered

Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound		Use computer technology, traditional paper-based resources, and interpersonal discussions to learn, do, and share in the classroom. Select appropriate hardware and software that aids in word processing, creating databases, telecommunications, graphing, data display, and other tasks. Use information technology to link the classroom to world events
	Students telecommunicate a message to a distant location with teacher help		
	Students access needed information from printed media, electronic databases, and community resources		

Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students describe the uses of information systems in homes, schools, and businesses		
	Students understand that computers are used to store personal information.		Use a variety of media to access scientific information. Consult several sources of information and points of view before drawing conclusions. Identify and report sources in oral and written communication.
	Students demonstrate ability to evaluate information		
Information technology can have positive and negative impacts on society, depending upon how it is used.	Students describe the uses of information systems in homes and schools		
	Students demonstrate an ability to evaluate information critically		Distinguish fact from fiction (presenting opinion as fact is contrary to the scientific process). Demonstrate an ability to critically evaluate information and misinformation. Recognize the impact of information technology on the daily life of students.

Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students describe patterns of daily, monthly, and seasonal changes in their environment	Weather	Natural cycles and patterns include: *Earth spinning around once every 24 hours (rotation), resulting in day and night *Earth moving in a path around the Sun (revolution), resulting in one Earth year *the length of daylight and darkness varying with the seasons *weather changing from day to day and through the seasons *the appearance of the Moon changing as it moves in a path around Earth to complete a single cycle
			Humans organize time into units based on natural motions of Earth: *second, minute, hour *week, month
		Weather	The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.

Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students describe the relationships among air, water, and land on Earth	Weather	Weather is the condition of the outside air at a particular moment
		Weather	Weather can be described and measured by: temperature, wind speed and direction, form and amount of precipitation, general sky conditions (cloudy, sunny, partly cloudy)

			Water is recycled by natural processes on Earth. *evaporation: changing of water (liquid) into water vapor (gas) *condensation: changing of water vapor (gas) into water (liquid) *precipitation: rain, sleet, snow, hail *runoff: water flowing on Earth's surface *groundwater: water that moves downward into the ground
		Weather	Erosion and deposition result from the interaction among air, water, and land. *interaction between air and water breaks down earth materials *pieces of earth material may be moved by air, water, wind, and
		Weather	Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things
Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	Students observe and describe properties of materials using appropriate tools	Properties of Matter	Matter takes up space and has mass. Two objects cannot occupy the same place at the same time.
		Properties of Matter/ Hot and Cold	Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.
		Properties of Matter/ Hot and Cold	Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light
		Properties of Matter/ Hot and Cold	Measurements can be made with standard metric units and nonstandard units. (Note: Exceptions to the metric system usage are found in meteorology.)
		Properties of Matter/ Hot and Cold	The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit
		Properties of Matter/ Hot and Cold	Objects and/or materials can be sorted or classified according to their properties.

		Properties of Matter/ Hot and Cold	Some properties of an object are dependent on the conditions of the present surroundings in which the object exists. For example: *temperature - hot or cold *lighting - shadows, color *moisture - wet or dry

	Students describe chemical and physical changes, including changes in states of matter	Properties of Matter	Matter exists in three states: solid, liquid, gas. *solids have a definite shape and volume *liquids do not have a definite shape but have a definite volume *gases do not hold their shape or volume
		Properties of Matter/ Hot and Cold	Temperature can affect the state of matter of a substance
		Properties of Matter/ Hot and Cold	Changes in the properties or materials of objects can be observed and described
Energy exists in many forms, and when these forms change energy is conserved	Students describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy		Energy exists in various forms: heat, electric, sound, chemical, mechanical, light
			Energy can be transferred from one place to another
			Some materials transfer energy better than others (heat and electricity).
			Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light
			Electricity travels in a closed circuit
		Hot and Cold	Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another
			Interactions with forms of energy can be either helpful or harmful
	Students observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy.)		Everyday events involve one form of energy being changed to another. *animals convert food to heat and motion *the Sun's energy warms the air and water
			Humans utilize interactions between matter and energy *chemical to electrical, light, and heat: battery and bulb *electrical to sound (e.g., doorbell buzzer) *mechanical to sound (e.g., musical instruments, clapping) *light to electrical (e.g., solar-powered calculator)

Energy and matter interact through forces that result in changes in motion.	Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.	Force and Motion/ Simple Machines	The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).
		Force and Motion/ Simple Machines	The position or direction of motion of an object can be changed by pushing or pulling.
		Force and Motion/ Simple Machines	The force of gravity pulls objects toward the center of Earth
		Force and Motion/ Simple Machines	The amount of change in the motion of an object is affected by friction.

		Force and Motion/ Simple Machines	Magnetism is a force that may attract or repel certain materials
		Force and Motion/ Simple Machines	Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes
	Students describe how forces can operate across distances	Force and Motion/ Simple Machines	The forces of gravity and magnetism can affect objects through gases, liquids, and solids
		Force and Motion/ Simple Machines	The force of magnetism on objects decreases as distance increases
Living things are both similar to and different from each other and from nonliving things	Students describe the characteristics of and variations between living and nonliving things	Snakes/ Ecocolumn/ Plant Adaptations	Animals need air, water, and food in order to live and thrive
		Ecocolumn/ Plant Adaptations	Plants require air, water, nutrients, and light in order to live and thrive.
			Nonliving things do not live and thrive
			Nonliving things can be human-created or naturally occurring
	Students describe the life processes common to all living things	Snakes/ Ecocolumn/ Plant Adaptations	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die
Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students recognize that traits of living things are both inherited and acquired or learned	Snakes/ Plant Adaptations	Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).
		Snakes/ Plant Adaptations	Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).
	Students recognize that for humans and other living things there is genetic continuity between generations	Snakes/ Plant Adaptations	Plants and animals closely resemble their parents and other individuals in their species
		Snakes/ Plant Adaptations	Plants and animals can transfer specific traits to their offspring when they reproduce

individual organisms and species change over time	Students describe how the structures of plants and animals complement the environment of the plant or animal	Ecocolumn/ Snakes/ Plant Adaptations	Each animal has different structures that serve different functions in growth, survival, and reproduction. *wings, legs, or fins enable some animals to seek shelter and escape predators *the mouth, including teeth, jaws, and tongue, enables some animals to eat and drink *eyes, nose, ears, tongue, and skin of some animals enable the animals to sense their surroundings *claws, shells, spines, feathers, fur, scales, and color of body covering enable some animals to protect themselves from predators and other environmental conditions, or enable them to obtain food *some animals have parts that are used to produce sounds and smells to help the animal meet its needs

		Snakes/ Plant Adaptations	*the characteristics of some animals change as seasonal conditions change (e.g., fur grows and is shed to help regulate body heat; body fat is a form of stored energy and it changes as the seasons change)
		Plant Adaptations	Each plant has different structures that serve different functions in growth, survival, and reproduction. *roots help support the plant and take in water and nutrients *leaves help plants utilize sunlight to make food for the plant *stems, stalks, trunks, and other similar structures provide support for the plant *some plants have flowers *flowers are reproductive structures of plants that produce fruit which contains seeds *seeds contain stored food that aids in germination and the growth of young plants
		Plant Adaptations/ Ecocolumns	In order to survive in their environment, plants and animals must be adapted to that environment. *seeds disperse by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals *leaf, flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture *animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration
	Students observe that differences within a species may give individuals an advantage in surviving and reproducing	Ecocolumns/ Plant Adaptations	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.
		Plant Adaptations	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing
The continuity of life is sustained through reproduction and development	Students describe the major stages in the life cycles of selected plants and animals	Snakes/ Ecocolumns	Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.
			Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.
			The length of time from beginning of development to death of the plant is called its life span.

			Life cycles of some plants include changes from seed to mature plant.
		Snakes	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult

		Snakes	Each kind of animal goes through its own stages of growth and development during its life span.
		Snakes	The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary
	Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises	Snakes	Growth is the process by which plants and animals increase in size.
		Snakes	Food supplies the energy and materials necessary for growth and repair
Organisms maintain a dynamic equilibrium that sustains life.	Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).		All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.
		Snakes/ Plant Adaptations	An organism's external physical features can enable it to carry out life functions in its particular environment
	Students describe some survival behaviors of common living specimens	Snakes/ Plant Adaptations	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.
		Snakes/ Plant Adaptations	Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).
		Snakes	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment
		Snakes	Some animals, including humans, move from place to place to meet their needs.
		Snakes	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur
		Snakes	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.

		Snakes	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight
	Students describe the factors that help promote good health and growth in humans		Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.
			Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise

Plants and animals depend on each other and their physical environment	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment		Green plants are producers because they provide the basic food supply for themselves and animals
		Snakes/ Ecocolumns	All animals depend on plants. Some animals (predators) eat other animals (prey).
		Snakes/ Ecocolumns	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain
		Ecocolumns	Decomposers are living things that play a vital role in recycling nutrients
		Ecocolumns	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment
		Ecocolumns	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations
	Students describe the relationship of the sun as an energy source for living and nonliving cycles	Ecocolumns	Plants manufacture food by utilizing air, water, and energy from the Sun.
		Ecocolumns	The Sun's energy is transferred on Earth from plants to animals through the food chain.
		Ecocolumns	Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).
Human decisions and activities have had a profound impact on the physical and living environment	Students identify ways in which humans have changed their environments and the effects of those changes		Humans depend on their natural and constructed environments.
		Plant Adaptations	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities

			Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms
Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students observe and describe interactions among components of simple systems	Simple Machines/ Ecocolumns	Describe the criteria used to select a quality toy or game. Build a wind will.
	Students identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).	Simple Machines/ Ecocolumns	
Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design	Students analyze, construct, and operate models in order to discover attributes of the real thing	Simple Machines/ Ecocolumns	
	Students use different types of models, such as graphs, sketches, diagrams, and maps, to represent various aspects of the real world	Simple Machines/ Ecocolumns	
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements	Snakes	Observe that things in nature and things that people make have very different sizes, weights, and ages
	Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior	Snakes	Recognize that almost anything has limits on how big or small it can be
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students cite examples of systems in which some features stay the same while other features change	Ecocolumns	

	Students distinguish between reasons for stability, from lack of changes to changes that counterbalance one another, to changes within cycles	Ecocolumns	Observe that things change in some ways and stay the same in some ways. Recognize that things can change in different ways such as size, weight, color, and movement. Some small changes can be detected by taking measurements
Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data	Weather	

	Students analyze data by making tables and graphs and looking for patterns of change	Weather	
In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints of a simple decision-making problem	Weather	Choose the best alternative from a set of solutions under given constraints. Explain the criteria used in selecting a solution orally and in writing
	Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.	Weather	
Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	
	Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice		Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working alone or as part of a group *Gathering and Processing Information- accessing information from printed media, electronic databases, and community resources; using the information to develop a definition of the problem and to research possible solutions *Generating and Analyzing Ideas- developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data *Common Themes- observing examples of common unifying themes, applying them to the problem, and using them to better understand the dimensions of the problem *Realizing Ideas- constructing components or models, arriving at a solution, and evaluating the results *Presenting Results- using a variety of media to present the solution and to
	Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	
	Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	

Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics, science, and technology; and presenting results	Students participate in an extended, culminating mathematics, science, and technology project	Snakes/ Plant Adaptations/ Hot and Cold/ Simple Machines/ Properties of Matter/ Force and Motion/ Ecocolumns/ Weather	communicate the results

Beginning Level Science			
Grade 4			
Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically	Students use special mathematical notation and symbolism to communicate in mathematics and to compare and describe quantities, express relationships, and relate mathematics to their immediate environment.		Use plus, minus, greater than, less than, equal to, multiplication, and division signs
			Select the appropriate operation to solve mathematical problems
			Apply mathematical skills to describe the natural world
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.		Explain verbally, graphically, or in writing the reasoning used to develop mathematical conclusions
			Explain verbally, graphically, or in writing patterns and relationships observed in the physical and living environment
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Use appropriate scientific tools, such as metric rulers, spring scale, pan balance, graph paper, thermometers [Fahrenheit and Celsius], graduated cylinder to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Observe and discuss objects and events and record observations
		Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and [illegible]	Articulate appropriate questions based on observations
	Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Identify similarities and differences between explanations received from others or in print and personal observations or understandings

	Students develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Clearly express a tentative explanation or description which can be tested

Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations that they have helped formulate.	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Indicate materials to be used and steps to follow to conduct the investigation and describe how data will be recorded (journal, dates and times, etc.)
	Students share their research plans with others and revise them based on their suggestions	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Explain the steps of a plan to others, actively listening to their suggestions for possible modification of the plan, seeking clarification and understanding of the suggestions and modifying the plan where appropriate
	Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities, such as length, mass, volume, temperature, and time	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Questioning, Comparing, Observing; Interpreting) Use appropriate "inquiry and process skills" to collect data
		Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and	Record observations accurately and concisely
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Accurately transfer data from a science journal or notes to appropriate graphic organizer
	Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	State, orally and in writing, any inferences or generalizations indicated by the data collected
	Students share their findings with others and actively seek their interpretations and ideas	Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	Explain their findings to others, and actively listen to suggestions for possible interpretations and ideas
		Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	State, orally and in writing, any inferences or generalizations indicated by the data, with appropriate modifications of their original prediction/explanation
		Tree Frogs/ Mold/ Electrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases/ Recycling/ Moons and Eclipses	State, orally and in writing, any new questions that arise from their investigation
Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved.	Electrical Circuits	Identify a simple/common object which might be improved and state the purpose of the improvement

		Electrical Circuits	Identify features of an object that help or hinder the performance of the object
		Electrical Circuits	Suggest ways the object can be made differently, fixed, or improved within given constraints
		Electrical Circuits	Identify appropriate questions to ask about the design of an object
		Electrical Circuits	Identify the appropriate resources to use to find out about the design of an object

		Electrical Circuits	Describe prior designs of the object
	Students engage in the following steps in a design process: generate ideas for possible solutions, individually and through group activity; apply age-appropriate mathematics and science skills; evaluate the ideas and determine the best solution; and explain reasons for the choices	Electrical Circuits	List possible solutions, applying age-appropriate math and science skills
		Electrical Circuits	Develop and apply criteria to evaluate possible solutions
		Electrical Circuits	Select a solution consistent with given constraints and explain why it was chosen
	Students engage in the following steps in a design process: plan and build, under supervision, a model of the solution using familiar materials, processes, and hand tools	Electrical Circuits	Create a grade-appropriate graphic or plan listing all materials needed, showing sizes of parts, indicating how things will fit together, and detailing steps for assembly
		Electrical Circuits	Build a model of the object, modifying the plan as necessary
	Students engage in the following steps in a design process: discuss how best to test the solution; perform the test under teacher supervision; record and portray results through numerical and graphic means; discuss orally why things worked or didn't work; and summarize results in writing, suggesting ways to make the solution better.	Electrical Circuits	Determine a way to test the finished solution or model
		Electrical Circuits	Perform the test and record the results, numerically and/or graphically
		Electrical Circuits	Analyze results and suggest how to improve the solution or model, using oral, graphic, or written formats
Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**

Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a variety of equipment and software packages to enter, process, display, and communicate information in different forms using text, tables, pictures, and sound		Use computer technology, traditional paper-based resources, and interpersonal discussions to learn, do, and share in the classroom. Select appropriate hardware and software that aids in word processing, creating databases, telecommunications, graphing, data display, and other tasks. Use information
	Students telecommunicate a message to a distant location with teacher help		

	Students access needed information from printed media, electronic databases, and community resources		technology to link the classroom to world events.
Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students describe the uses of information systems in homes, schools, and businesses		Use a variety of media to access scientific information. Consult several sources of information and points of view before drawing conclusions. Identify and report sources in oral and written communication.
	Students understand that computers are used to store personal information.		
	Students demonstrate ability to evaluate information		
Information technology can have positive and negative impacts on society, depending upon how it is used.	Students describe the uses of information systems in homes and schools		Distinguish fact from fiction (presenting opinion as fact is contrary to the scientific process). Demonstrate an ability to critically evaluate information and misinformation. Recognize
	Students demonstrate an ability to evaluate information critically		

			the impact of information technology on the daily life of students.
Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students describe patterns of daily, monthly, and seasonal changes in their environment	Moons and Eclipses	Natural cycles and patterns include: *Earth spinning around once every 24 hours (rotation), resulting in day and night *Earth moving in a path around the Sun (revolution), resulting in one Earth year *the length of daylight and darkness varying with the seasons *weather changing from day to day and through the seasons *the appearance of the Moon changing as it moves in a path around Earth to complete a single cycle
		Moons and Eclipses	Humans organize time into units based on natural motions of Earth: *second, minute, hour *week, month
		Moons and Eclipses	The Sun and other stars appear to move in a recognizable pattern both daily and seasonally.
Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students describe the relationships among air, water, and land on Earth		Demonstrate through experiments the interaction between water and earth materials. Explain the results of their experiment in group discussion and/or in written form.
			Weather can be described and measured by: temperature, wind speed and direction, form and amount of precipitation, general sky conditions (cloudy, sunny, partly cloudy)
			Water is recycled by natural processes on Earth. *evaporation: changing of water (liquid) into water vapor (gas) *condensation: changing of water vapor (gas) into water (liquid) *precipitation: rain, sleet, snow, hail

			Erosion and deposition result from the interaction among air, water, and land. *interaction between air and water breaks down earth materials *pieces of earth material may be moved by air, water, wind, and gravity *pieces of earth material will settle or deposit on land or in the water in different places *soil is composed of broken-down pieces of living and nonliving earth material
			Extreme natural events (floods, fires, earthquakes, volcanic eruptions, hurricanes, tornadoes, and other severe storms) may have positive or negative impacts on living things

Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	Students observe and describe properties of materials using appropriate tools	Mystery Powders	Matter takes up space and has mass. Two objects cannot occupy the same place at the same time.
		Mystery Powders	Matter has properties (color, hardness, odor, sound, taste, etc.) that can be observed through the senses.
		Mystery Powders	Objects have properties that can be observed, described, and/or measured: length, width, volume, size, shape, mass or weight, temperature, texture, flexibility, reflectiveness of light
		Mystery Powders	Measurements can be made with standard metric units and nonstandard units. (Note: Exceptions to the metric system usage are found in meteorology.)
		Mystery Powders	The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit
		Mystery Powders	The material(s) an object is made up of determine some specific properties of the object (sink/float, conductivity, magnetism). Properties can be observed or measured with tools such as hand lenses, metric rulers, thermometers, balances, magnets, circuit
		Mystery Powders	Some properties of an object are dependent on the conditions of the present surroundings in which the object exists. For example: *temperature - hot or cold *lighting - shadows, color *moisture - wet or dry

	Students describe chemical and physical changes, including changes in states of matter	Mystery Powders	Matter exists in three states: solid, liquid, gas. *solids have a definite shape and volume *liquids do not have a definite shape but have a definite volume *gases do not hold their shape or volume
		Mystery Powders	Temperature can affect the state of matter of a substance
		Mystery Powders	Changes in the properties or materials of objects can be observed and described

Energy exists in many forms, and when these forms change energy is conserved	Students describe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy	Electrical Circuits	Energy exists in various forms: heat, electric, sound, chemical, mechanical, light
		Electrical Circuits	Energy can be transferred from one place to another
		Electrical Circuits	Some materials transfer energy better than others (heat and electricity).
		Electrical Circuits	Energy and matter interact: water is evaporated by the Sun's heat; a bulb is lighted by means of electrical current; a musical instrument is played to produce sound; dark colors may absorb light, light colors may reflect light
		Electrical Circuits	Electricity travels in a closed circuit
		Electrical Circuits	Heat can be released in many ways, for example, by burning, rubbing (friction), or combining one substance with another
		Electrical Circuits	Interactions with forms of energy can be either helpful or harmful
	Students observe the way one form of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat energy, mechanical to electrical energy, chemical to heat energy.)	Electrical Circuits	Everyday events involve one form of energy being changed to another. *animals convert food to heat and motion *the Sun's energy warms the air and water
		Electrical Circuits	Humans utilize interactions between matter and energy *chemical to electrical, light, and heat: battery and bulb *electrical to sound (e.g., doorbell buzzer) *mechanical to sound (e.g., musical instruments, clapping) *light to electrical (e.g., solar-powered calculator)
Energy and matter interact through forces that result in changes in motion.	Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.	Electrical Circuits/ Magnets	The position of an object can be described by locating it relative to another object or the background (e.g., on top of, next to, over, under, etc.).
		Electrical Circuits/ Magnets	The position or direction of motion of an object can be changed by pushing or pulling.
		Electrical Circuits/ Magnets	The force of gravity pulls objects toward the center of Earth

		Electrical Circuits/ Magnets	The amount of change in the motion of an object is affected by friction.
		Electrical Circuits/ Magnets	Magnetism is a force that may attract or repel certain materials

		Electrical Circuits/ Magnets	Mechanical energy may cause change in motion through the application of force and through the use of simple machines such as pulleys, levers, and inclined planes
	Students describe how forces can operate across distances	Magnets	The forces of gravity and magnetism can affect objects through gases, liquids, and solids
		Magnets	The force of magnetism on objects decreases as distance increases
Living things are both similar to and different from each other and from nonliving things	Students describe the characteristics of and variations between living and nonliving things	Tree Frogs	Animals need air, water, and food in order to live and thrive
		Mold	Plants require air, water, nutrients, and light in order to live and thrive.
			Nonliving things do not live and thrive
			Nonliving things can be human-created or naturally occurring
	Students describe the life processes common to all living things	Tree Frogs/ Mold	Living things grow, take in nutrients, breathe, reproduce, eliminate waste, and die
Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students recognize that traits of living things are both inherited and acquired or learned	Tree Frogs/ Mold	Some traits of living things have been inherited (e.g., color of flowers and number of limbs of animals).
		Tree Frogs/ Mold	Some characteristics result from an individual's interactions with the environment and cannot be inherited by the next generation (e.g., having scars; riding a bicycle).
	Students recognize that for humans and other living things there is genetic continuity between generations	Tree Frogs/ Mold	Plants and animals closely resemble their parents and other individuals in their species
		Tree Frogs/ Mold	Plants and animals can transfer specific traits to their offspring when they reproduce

Individual organisms and species change over time	Students describe how the structures of plants and animals complement the environment of the plant or animal	Tree Frogs	Each animal has different structures that serve different functions in growth, survival, and reproduction. *wings, legs, or fins enable some animals to seek shelter and escape predators *the mouth, including teeth, jaws, and tongue, enables some animals to eat and drink *eyes, nose, ears, tongue, and skin of some animals enable the animals to sense their surroundings *claws, shells, spines, feathers, fur, scales, and color of body covering enable some animals to protect themselves from predators and other environmental conditions, or enable them to obtain food *some animals have parts that are used to produce sounds and smells to help the animal meet its needs
		Tree Frogs	*the characteristics of some animals change as seasonal conditions change (e.g., fur grows and is shed to help regulate body heat; body fat is a form of stored energy and it changes as the seasons change)
		Mold	Each plant has different structures that serve different functions in growth, survival, and reproduction. *roots help support the plant and take in water and nutrients *leaves help plants utilize sunlight to make food for the plant *stems, stalks, trunks, and other similar structures provide support for the plant *some plants have flowers *flowers are reproductive structures of plants that produce fruit which contains seeds *seeds contain stored food that aids in germination and the growth of young plants

		Tree Frog	In order to survive in their environment, plants and animals must be adapted to that environment. *seeds disperse by a plant's own mechanism and/or in a variety of ways that can include wind, water, and animals *leaf, flower, stem, and root adaptations may include variations in size, shape, thickness, color, smell, and texture *animal adaptations include coloration for warning or attraction, camouflage, defense mechanisms, movement, hibernation, and migration
	Students observe that differences within a species may give individuals an advantage in surviving and reproducing	Tree Frog/ Mold	Individuals within a species may compete with each other for food, mates, space, water, and shelter in their environment.
		Tree Frog/ Mold	All individuals have variations, and because of these variations, individuals of a species may have an advantage in surviving and reproducing
The continuity of life is sustained through reproduction and development	Students describe the major stages in the life cycles of selected plants and animals	Tree Frog	Plants and animals have life cycles. These may include beginning of a life, development into an adult, reproduction as an adult, and eventually death.
		Mold	Each kind of plant goes through its own stages of growth and development that may include seed, young plant, and mature plant.
		Mold	The length of time from beginning of development to death of the plant is called its life span.
			Life cycles of some plants include changes from seed to mature plant.
		Tree Frog	Each generation of animals goes through changes in form from young to adult. This completed sequence of changes in form is called a life cycle. Some insects change from egg to larva to pupa to adult

		Tree Frog	Each kind of animal goes through its own stages of growth and development during its life span.
		Tree Frog	The length of time from an animal's birth to its death is called its life span. Life spans of different animals vary

	Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises	Tree Frog	Growth is the process by which plants and animals increase in size.
			Food supplies the energy and materials necessary for growth and repair
Organisms maintain a dynamic equilibrium that sustains life.	Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).	Tree Frog/ Mold	All living things grow, take in nutrients, breathe, reproduce, and eliminate waste.
		Tree Frog	An organism's external physical features can enable it to carry out life functions in its particular environment
	Students describe some survival behaviors of common living specimens	Mold	Plants respond to changes in their environment. For example, the leaves of some green plants change position as the direction of light changes; the parts of some plants undergo seasonal changes that enable the plant to grow; seeds germinate, and leaves form and grow.
		Tree Frog	Animals respond to change in their environment, (e.g., perspiration, heart rate, breathing rate, eye blinking, shivering, and salivating).
		Tree Frog/ Mold	Senses can provide essential information (regarding danger, food, mates, etc.) to animals about their environment
		Tree Frog	Some animals, including humans, move from place to place to meet their needs.
		Tree Frog	Particular animal characteristics are influenced by changing environmental conditions including: fat storage in winter, coat thickness in winter, camouflage, shedding of fur
		Tree Frog	Some animal behaviors are influenced by environmental conditions. These behaviors may include: nest building, hibernating, hunting, migrating, and communicating.

		Tree Frog	The health, growth, and development of organisms are affected by environmental conditions such as the availability of food, air, water, space, shelter, heat, and sunlight
	Students describe the factors that help promote good health and growth in humans		* Content (Life Science; Health) Humans need a variety of healthy foods, exercise, and rest in order to grow and maintain good health.

			Good health habits include hand washing and personal cleanliness; avoiding harmful substances (including alcohol, tobacco, illicit drugs); eating a balanced diet; engaging in regular exercise
Plants and animals depend on each other and their physical environment	Students describe how plants and animals, including humans, depend upon each other and the nonliving environment		* Content (Plants; Animals; Living Environment; Life Science; Ecosystems; Interdependence) Green plants are producers because they provide the basic food supply for themselves and animals
		Tree Frogs	All animals depend on plants. Some animals (predators) eat other animals (prey).
		Tree Frogs	Animals that eat plants for food may in turn become food for other animals. This sequence is called a food chain
			Decomposers are living things that play a vital role in recycling nutrients
		Tree Frogs	An organism's pattern of behavior is related to the nature of that organism's environment, including the kinds and numbers of other organisms present, the availability of food and other resources, and the physical characteristics of the environment
		Tree Frogs	When the environment changes, some plants and animals survive and reproduce, and others die or move to new locations
	Students describe the relationship of the sun as an energy source for living and nonliving cycles	Mold	Plants manufacture food by utilizing air, water, and energy from the Sun.
			The Sun's energy is transferred on Earth from plants to animals through the food chain.
			Heat energy from the Sun powers the water cycle (see Physical Science Key Idea 2).
Human decisions and activities have had a profound impact on the physical and living environment	Students identify ways in which humans have changed their environments and the effects of those changes	Recycling	Humans depend on their natural and constructed environments.

		Recycling	Over time humans have changed their environment by cultivating crops and raising animals, creating shelter, using energy, manufacturing goods, developing means of transportation, changing populations, and carrying out other activities
		Recycling	Humans, as individuals or communities, change environments in ways that can be either helpful or harmful for themselves and other organisms
Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students observe and describe interactions among components of simple systems	Elicrtical Circuits/ Magnets/ Myster Powders/ Acids and Bases	Conduct an experiment of the effects of water on sand. Create an invention that will run on solar power. Create an invention to predict the weather.
	Students identify common things that can be considered to be systems (e.g., a plant population, a subway system, human beings).	Elicrtical Circuits/ Magnets/ Myster Powders/ Acids and Bases	
Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design	Students analyze, construct, and operate models in order to discover attributes of the real thing	Elicrtical Circuits/ Magnets/ Recycling	
	Students use different types of models, such as graphs, sketches, diagrams, and maps, to represent various aspects of the real world	Elicrtical Circuits/ Magnets/ Recycling	
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds, and other measurements		Observe that things in nature and things that people make have very different sizes, weights, and ages

	Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior		Recognize that almost anything has limits on how big or small it can be
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students cite examples of systems in which some features stay the same while other features change	Moons and Eclipses/ Acids and Bases	

	Students distinguish between reasons for stability, from lack of changes to changes that counterbalance one another, to changes within cycles		* Content (Earth, Physical and Life Sciences; Questioning, Comparing, Observing; Interpreting) * Content (Using Systems to Solve Problems; How People Use Technology to Solve Problems) Observe that things change in some ways and stay the same in some ways. Recognize that things can change in different ways such as size, weight, color, and movement. Some small changes can be detected by taking measurements.
Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data	Acids and Bases/ Mystery Powders/ Moons and Eclipses	
	Students analyze data by making tables and graphs and looking for patterns of change	Acids and Bases/ Mystery Powders/ Moons and Eclipses	
In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints of a simple decision-making problem	Recycling	Choose the best alternative from a set of solutions under given constraints. Explain the criteria used in selecting a solution orally and in writing
	Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.	Recycling	
Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.			
Key ideas	**Performance Indicators**	**Harlem Success Academy Curriculum Units**	**Major Understandings/ Concepts Covered**
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action	Recycling	
	Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice	Recycling	Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether

	Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute	Recycling	working alone or as part of a group *Gathering and Processing Information- accessing information from printed media, electronic databases, and community resources; using the information to develop a definition of the problem and to research possible solutions *Generating and Analyzing Ideas- developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data *Common Themes- observing examples of common unifying themes, applying them to the problem, and using them to better understand the dimensions of the problem *Realizing Ideas- constructing components or models, arriving at a solution, and evaluating the results *Presenting Results- using a variety of media to present the solution and to communicate the results
	Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions	Mold/ Eclectrical Circuits/ Magnets/ Mystery Powders/ Acids and Bases	

Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics	Students participate in an extended, culminating mathematics, science, and technology project	Tree Frogs/ Mold/ Electrical Circuits/ Recycling/ Magnets/ Mystery Powders/ Moons and Eclipses	

Intermediate Level Science

Grade 5

Standard 1: Students will use mathematical analysis, scientific inquiry, and engineering design, as appropriate, to pose questions, seek answers, and develop solutions.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Mathematical Analysis: Abstraction and symbolic representation are used to communicate mathematically	Students extend mathematical notation and symbolism to include variables and algebraic expressions in order to describe and compare quantities and express mathematical relationships	Incorporated into curriculum throughout school year	Identify independent and dependent variables
		Incorporated into curriculum throughout school year	Identify relationships among variables including: direct, indirect, cyclic, constant; identify non-related material
		Incorporated into curriculum throughout school year	Apply mathematical equations to describe relationships among variables in the natural world
Mathematical Analysis: Deductive and inductive reasoning are used to reach mathematical conclusions.	Students use inductive reasoning to construct, evaluate, and validate conjectures and arguments, recognizing that patterns and relationships can assist in explaining and extending mathematical phenomena	Incorporated into curriculum throughout school year	Interpolate and extrapolate from data
			Quantify patterns and trends
Mathematical Analysis: Critical thinking skills are used in the solution of mathematical problems.	Students apply mathematical knowledge to solve real-world problems and problems that arise from the investigation of mathematical ideas, using representations such as pictures, charts and tables	Incorporated into curriculum throughout school year	Use appropriate scientific tools to solve problems about the natural world
Scientific Inquiry: The central purpose of scientific inquiry is to develop explanations of natural phenomena in a continuing, creative process.	Students formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observations	Crayfish/ The Human Body	Formulate questions about natural phenomena
		Crayfish/ The Human Body/ Robotics	Identify appropriate references to investigate a question
		Crayfish/ The Human Body/ Robotics	Refine and clarify questions so that they are subject to scientific investigation
	Students construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena	Crayfish/ The Human Body	Independently formulate a hypothesis. Propose a model of a natural phenomenon. Differentiate among observations, inferences, predictions, and explanations
	Students represent, present, and defend their proposed explanations of everyday observations so that they can be understood and assessed by others	Crayfish/ The Human Body	
	Students seek to clarify, to assess critically, and to reconcile with their own thinking the ideas presented by others, including peers, teachers, authors, and scientists	Crayfish/ The Human Body	
Scientific Inquiry: Beyond the use of reasoning and consensus, scientific inquiry involves the testing of proposed explanations involving the use of conventional techniques and procedures and usually requiring considerable ingenuity.	Students use conventional techniques and those of their own design to make further observations and refine their explanations, guided by a need for more information	Crayfish/ Robotics	Demonstrate appropriate safety techniques

			Conduct an experiment designed by others
			Design and conduct an experiment to test a hypothesis
		Crayfish	Use appropriate tools and conventional techniques to solve problems about the natural world, including: *measuring *observing *describing *classifying *sequencing
		Crayfish	Include appropriate safety procedures
			Design scientific investigations (e.g., observing, describing, and comparing; collecting samples; seeking more information, conducting a controlled experiment; discovering new objects or phenomena; making models)
			Design a simple controlled experiment
			Identify independent variables (manipulated), dependent variables (responding), and constants in a simple controlled experiment
			Choose appropriate sample size and number of trials
	Students carry out their research proposals, recording observations and measurements (e.g., lab notes, audiotape, computer disk, videotape) to help assess the explanation	Crafyfish/ Robotics	Use appropriate safety procedures
			Conduct a scientific investigation
			Collect quantitative and qualitative data
Scientific Inquiry: The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into phenomena	Students design charts, tables, graphs, and other representations of observations in conventional and creative ways to help them address their research question or hypothesis.	Incorporated into curriculum throughout school year	Organize results, using appropriate graphs, diagrams, data tables, and other models to show relationships
			Generate and use scales, create legends, and appropriately label axes
	Students interpret the organized data to answer the research question or hypothesis and to gain insight into the problem	Incorporated into curriculum throughout school year	Accurately describe the procedures used and the data gathered. Identify sources of error and the limitations of data collected. Evaluate the original hypothesis in light of the data. Formulate and defend explanations and conclusions as they relate to scientific phenomena. Form and defend a logical argument about cause-and-effect relationships in an investigation. Make predictions based on experimental data.
	Students modify their personal understanding of phenomena based on evaluation of their hypothesis	Incorporated into curriculum throughout school year	
			*Suggest improvements and recommendations for further studying *Use and interpret graphs and data tables

Engineering Design: Engineering design is an iterative process involving modeling and optimization (finding the best solution within given constraints); this process is used to develop technological solutions to problems within given constraints	Students engage in the following steps in a design process: identify needs and opportunities for technical solutions from an investigation of situations of general or social interest	Robotics/ Structures and Bridges	Identify a scientific or human need that is subject to a technological solution which applies scientific principles
	Students engage in the following steps in a design process: locate and utilize a range of printed, electronic, and human information resources to obtain ideas	Robotics/ Structures and Bridges	Use all available information systems for a preliminary search that addresses the need
	Students engage in the following steps in a design process: consider constraints and generate several ideas for alternative solutions, using group and individual ideation techniques (group discussion, brainstorming, forced connections, role play); defer judgment until a number of ideas have been generated; evaluate (critique) ideas; and explain why the	Robotics/ Structures and Bridges	Generate ideas for alternative solutions
		Robotics/ Structures and Bridges	Evaluate alternatives based on the constraints of design
	Students engage in the following steps in a design process: develop plans, including drawings with measurements and details of construction, and construct a model of the solution, exhibiting a degree of craftsmanship	Robotics	Design and construct a model of the product or process
		Robotics/ Structures and Bridges	Construct a model of the product or process
		Robotics/ Structures and Bridges	Test a design
		Robotics/ Structures and Bridges	Evaluate a design

Standard 2: Students will access, generate, process, and transfer information using appropriate technologies.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Information technology is used to retrieve, process, and communicate information and as a tool to enhance learning	Students use a range of equipment and software to integrate several forms of information in order to create good quality audio, video, graphic, and text-based presentations	Incorporated into curriculum throughout school year	
	Students use spreadsheets and database software to collect, process, display, and analyze information. Students access needed information from electronic databases and on-line telecommunication services	Incorporated into curriculum throughout school year	Collect the data, using the appropriate, available tool. Organize the data. Use the collected data to communicate a scientific concept.
	Students systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources, including local and national media, libraries, museums, governmental agencies, industries, and individuals	Incorporated into curriculum throughout school year	
	Students collect data from probes to measure events and phenomena	Incorporated into curriculum throughout school year	
	Students use simple modeling programs to make predictions	Incorporated into curriculum throughout school year	

Knowledge of the impacts and limitations of information systems is essential to its effective and ethical use	Students understand the need to question the accuracy of information displayed on a computer because the results produced by a computer may be affected by incorrect data entry	Incorporated into curriculum throughout school year	

	Students identify advantages and limitations of data-handling programs and graphics programs	Incorporated into curriculum throughout school year	
	Students understand why electronically stored personal information has greater potential for misuse than records kept in conventional form	Incorporated into curriculum throughout school year	Critically analyze data to exclude erroneous information. Identify and explain sources of error in a data collection.
Information technology can have positive and negative impacts on society, depending upon how it is used.	Students use graphical, statistical, and presentation software to present projects to fellow classmates	Incorporated into curriculum throughout school year	
	Students describe applications of information technology in mathematics, science, and other technologies that address needs and solve problems in the community.	Incorporated into curriculum throughout school year	

Standard 4: Students will understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The Earth and celestial phenomena can be described by principles of relative motion and perspective	Students explain daily, monthly, and seasonal changes on Earth		Earth's Sun is an average-sized star. The Sun is more than a million times greater in volume than Earth.
			Other stars are like the Sun but are so far away that they look like points of light. Distances between stars are vast compared to distances within our solar system.
			The Sun and the planets that revolve around it are the major bodies in the solar system. Other members include comets, moons, and asteroids. Earth's orbit is nearly circular.
			Gravity is the force that keeps planets in orbit around the Sun and the Moon in orbit around the Earth.
			The latitude/longitude coordinate system and our system of time are based on celestial observations.
			Moons are seen by reflected light. Our Moon orbits Earth, while Earth orbits the Sun. The Moon's phases as observed from Earth are the result of seeing different portions of the lighted area of the Moon's surface. The phases repeat in a cyclic pattern in about one month.
			The apparent motions of the Sun, Moon, planets, and stars across the sky can be explained by Earth's rotation and revolution. Earth's rotation causes the length of one day to be approximately 24 hours. This rotation also causes the Sun and Moon to appear to rise along the eastern horizon and to set along the western horizon. Earth's revolution around the Sun defines the length of the year as
			The tilt of Earth's axis of rotation and the revolution of Earth around the Sun cause seasons on Earth. The length of daylight varies depending on latitude and season.
			The shape of Earth, the other planets, and stars is nearly spherical

Many of the phenomena that we observe on Earth involve interactions among components of air, water, and land.	Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change		Nearly all the atmosphere is confined to a thin shell surrounding Earth. The atmosphere is a mixture of gases, including nitrogen and oxygen with small amounts of water vapor, carbon dioxide, and other trace gases. The atmosphere is stratified into layers, each having distinct properties. Nearly all weather occurs in the lowest layer of the atmosphere.
			As altitude increases, air pressure decreases.
			The rock at Earth's surface forms a nearly continuous shell around Earth called the lithosphere.
			The majority of the lithosphere is covered by a relatively thin layer of water called the hydrosphere.
			Rocks are composed of minerals. Only a few rock-forming minerals make up most of the rocks of Earth. Minerals are identified on the basis of physical properties such as streak, hardness, and reaction to acid.
			Fossils are usually found in sedimentary rocks. Fossils can be used to study past climates and environments.
			The dynamic processes that wear away Earth's surface include weathering and erosion.
			The process of weathering breaks down rocks to form sediment. Soil consists of sediment, organic material, water, and air.
			Erosion is the transport of sediment. Gravity is the driving force behind erosion. Gravity can act directly or through agents such as moving water, wind, and glaciers.
			Water circulates through the atmosphere, lithosphere, and hydrosphere in what is known as the water cycle.
	Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes		The interior of Earth is hot. Heat flow and movement of material within Earth cause sections of Earth's crust to move. This may result in earthquakes, volcanic eruption, and the creation of mountains and ocean basins.
			Analysis of earthquake wave data (vibrational disturbances) leads to the conclusion that there are layers within Earth. These layers - the crust, mantle, outer core, and inner core - have distinct properties.
			Folded, tilted, faulted, and displaced rock layers suggest past crustal movement.
			Continents fitting together like puzzle parts and fossil correlations provided initial evidence that continents were once together.
			The Theory of Plate Tectonics explains how the "solid" lithosphere consists of a series of plates that "float" on the partially molten section of the mantle. Convection cells within the mantle may be the driving force for the movement of the plates.

			Plates may collide, move apart, or slide past one another. Most volcanic activity and mountain building occur at the boundaries of these plates, often resulting in earthquakes.
			Rocks are classified according to their method of formation. The three classes of rocks are sedimentary, metamorphic, and igneous. Most rocks show characteristics that give clues to their formation conditions.
			The rock cycle model shows how types of rock or rock material may be transformed from one type of rock to another.
			Weather describes the conditions of the atmosphere at a given location for a short period of time.
			Climate is the characteristic weather that prevails from season to season and year to year.
			The uneven heating of Earth's surface is the cause of weather.
			Air masses form when air remains nearly stationary over a large section of Earth's surface and takes on the conditions of temperature and humidity from that location. Weather conditions at a location are determined primarily by temperature, humidity, and pressure of air masses over that location.
			Most local weather condition changes are caused by movement of air masses.
			The movement of air masses is determined by prevailing winds and upper air currents.
			Fronts are boundaries between air masses. Precipitation is likely to occur at these boundaries.
			High-pressure systems generally bring fair weather. Low-pressure systems usually bring cloudy, unstable conditions. The general movement of highs and lows is from west to east across the United States.
			Hazardous weather conditions include thunderstorms, tornadoes, hurricanes, ice storms, and blizzards. Humans can prepare for and respond to these conditions if given sufficient warning.
			Substances enter the atmosphere naturally and from human activity. Some of these substances include dust from volcanic eruptions and greenhouse gases such as carbon dioxide, methane, and water vapor. These substances can affect weather,
Matter is made up of particles whose properties determine the observable characteristics of matter and its reactivity	Students observe and describe properties of materials, such as density, conductivity, and solubility		Substances have characteristic properties. Some of these properties include color, odor, phase at room temperature, density, solubility, heat and electrical conductivity, hardness, and boiling and freezing points.

			Solubility can be affected by the nature of the solute and solvent, temperature, and pressure. The rate of solution can be affected by the size of the particles, stirring, temperature, and the amount of solute already dissolved.
			The motion of particles helps to explain the phases (states) of matter as well as changes from one phase to another. The phase in which matter exists depends on the attractive forces among its particles.
			Gases have neither a determined shape nor a definite volume. Gases assume the shape and volume of a closed container.
			A liquid has definite volume, but takes the shape of a container.
			A solid has definite shape and volume. Particles resist a change in position.
			Characteristic properties can be used to identify different materials, and separate a mixture of substances into its components. For example, iron can be removed from a mixture by means of a magnet. An insoluble substance can be separated from a soluble substance by such processes as
			Density can be described as the amount of matter that is in a given amount of space. If two objects have equal volume, but one has more mass, the one with more mass is denser.
			Buoyancy is determined by comparative densities
	Students distinguish between chemical and physical changes		During a physical change a substance keeps its chemical composition and properties. Examples of physical changes include freezing, melting, condensation, boiling, evaporation, tearing, and crushing.
			Mixtures are physical combinations of materials and can be separated by physical means.
			During a chemical change, substances react in characteristic ways to form new substances with different physical and chemical properties. Examples of chemical changes include burning of wood, cooking of an egg, rusting of iron, and souring of milk.
			Substances are often placed in categories if they react in similar ways. Examples include metals, nonmetals, and noble gases.
			The Law of Conservation of Mass states that during an ordinary chemical reaction matter cannot be created or destroyed. In chemical reactions, the total mass of the reactants equals the total mass of the products.
	Students develop mental models to explain common chemical reactions and changes in states of matter		All matter is made up of atoms. Atoms are far too small to see with a light microscope.

			Atoms and molecules are perpetually in motion. The greater the temperature, the greater the motion.
			Atoms may join together in well-defined molecules or may be arranged in regular geometric patterns.
			Interactions among atoms and/or molecules result in chemical reactions.
			The atoms of any one element are different from the atoms of other elements.
			There are more than 100 elements. Elements combine in a multitude of ways to produce compounds that account for all living and nonliving substances. Few elements are found in their pure form.
Energy exists in many forms, and when these forms change energy is conserved	Students describe the sources and identify the transformations of energy observed in everyday life		The Sun is a major source of energy for Earth. Other sources of energy include nuclear and geothermal energy.
			Fossil fuels contain stored solar energy and are considered nonrenewable resources. They are a major source of energy in the United States. Solar energy, wind, moving water, and biomass are some examples of renewable energy resources.
			Most activities in everyday life involve one form of energy being transformed into another. For example, the chemical energy in gasoline is transformed into mechanical energy in an automobile engine. Energy, in the form of heat, is almost always one of the products of energy transformations.
			Different forms of energy include heat, light, electrical, mechanical, sound, nuclear, and chemical. Energy is transformed in many ways.
			Energy can be considered to be either kinetic energy, which is the energy of motion, or potential energy, which depends on relative position
			The periodic table is one useful model for classifying elements. The periodic table can be used to predict properties of elements (metals, nonmetals, noble
	Students observe and describe heating and cooling events		Heat moves in predictable ways, flowing from warmer objects to cooler ones, until both reach the same temperature.
			Heat can be transferred through matter by the collisions of atoms and/or molecules (conduction) or through space (radiation). In a liquid or gas, currents will facilitate the transfer of heat (convection).
			During a phase change, heat energy is absorbed or released. Energy is absorbed when a solid changes to a liquid and when a liquid changes to a gas. Energy is released when a gas changes to a liquid and when a liquid changes to a solid.
			Most substances expand when heated and contract when cooled. Water is an exception, expanding when changing to ice.

			Temperature affects the solubility of some substances in water
	Students observe and describe energy changes as related to chemical reactions		In chemical reactions, energy is transferred into or out of a system. Light, electricity, or mechanical motion may be involved in such transfers in addition to heat.
	Students observe and describe the properties of sound, light, magnetism, and electricity		Different forms of electromagnetic energy have different wavelengths. Some examples of electromagnetic energy are microwaves, infrared light, visible light, ultraviolet light, X-rays, and gamma rays.
			Light passes through some materials, sometimes refracting in the process. Materials absorb and reflect light, and may transmit light. To see an object, light from that object, emitted by or reflected from it, must enter the eye.
			Vibrations in materials set up wave-like disturbances that spread away from the source. Sound waves are an example. Vibrational waves move at different speeds in different materials. Sound cannot travel in a vacuum.
		Robotics	Electrical energy can be produced from a variety of energy sources and can be transformed into almost any other form of energy.
		Robotics	Electrical circuits provide a means of transferring electrical energy.
		Robotics	Without touching them, material that has been electrically charged attracts uncharged material, and may either attract or repel other charged material.
	Students describe situations that support the principle of conservation of energy		Energy cannot be created or destroyed, but only changed from one form into another.
			Energy can change from one form to another, although in the process some energy is always converted to heat. Some systems transform energy with less loss of heat than others
Energy and matter interact through forces that result in changes in motion.	Students describe different patterns of motion of objects		The motion of an object is always judged with respect to some other object or point. The idea of absolute motion or rest is misleading.
			The motion of an object can be described by its position, direction of motion, and speed.
			An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.

			Force is directly related to an object's mass and acceleration. The greater the force, the greater the change in motion.
			For every action there is an equal and opposite reaction
	Students observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects		Every object exerts gravitational force on every other object. Gravitational force depends on how much mass the objects have and on how far apart they are. Gravity is one of the forces acting on orbiting objects and projectiles.
			Electric currents and magnets can exert a force on each other.
		Robotics	Machines transfer mechanical energy from one object to another.
			Friction is a force that opposes motion.
		Robotics	A machine can be made more efficient by reducing friction. Some common ways of reducing friction include lubricating or waxing surfaces.
			Machines can change the direction or amount of force, or the distance or speed of force required to do work.
			Simple machines include a lever, a pulley, a wheel and axle, and an inclined plane. A complex machine uses a combination of interacting simple machines, e.g., a bicycle.
Living things are both similar to and different from each other and from nonliving things	Students compare and contrast the parts of plants, animals, and one-celled organisms		Living things are composed of cells. Cells provide structure and carry on major functions to sustain life. Cells are usually microscopic in size.
			The way in which cells function is similar in all living things. Cells grow and divide, producing more cells. Cells take in nutrients, which they use to provide energy for the work that cells do and to make the materials that a cell or an organism needs.
			Most cells have cell membranes, genetic material, and cytoplasm. Some cells have a cell wall and/or chloroplasts. Many cells have a nucleus.
		The Human Body	Some organisms are single cells; others, including humans, are multicellular.
		The Human Body	Cells are organized for more effective functioning in multicellular organisms. Levels of organization for structure and function of a multicellular organism include cells, tissues, organs, and organ systems.
			Many plants have roots, stems, leaves, and reproductive structures. These organized groups of tissues are responsible for a plant's life activities.
			Multicellular animals often have similar organs and specialized systems for carrying out major life activities.

			Living things are classified by shared characteristics on the cellular and organism level. In classifying organisms, biologists consider details of internal and external structures. Biological classification systems are arranged from general (kingdom) to specific (species)
	Students explain the functioning of the major human organ systems and their interactions		Each system is composed of organs and tissues which perform specific functions and interact with each other, e.g., digestion, gas exchange, excretion, circulation, locomotion, control, coordination, reproduction, and protection from disease.
		The Human Body	Tissues, organs, and organ systems help to provide all cells with nutrients, oxygen, and waste removal.
		The Human Body	The digestive system consists of organs that are responsible for the mechanical and chemical breakdown of food. The breakdown process results in molecules that can be absorbed and transported to cells.
		The Human Body	During respiration, cells use oxygen to release the energy stored in food. The respiratory system supplies oxygen and removes carbon dioxide (gas exchange).
		The Human Body	The excretory system functions in the disposal of dissolved waste molecules, the elimination of liquid and gaseous wastes, and the removal of excess heat energy.
		The Human Body	The circulatory system moves substances to and from cells, where they are needed or produced, responding to changing demands.
		The Human Body	Locomotion, necessary to escape danger, obtain food and shelter, and reproduce, is accomplished by the interaction of the skeletal and muscular systems, and coordinated by the nervous system.
		The Human Body	The nervous and endocrine systems interact to control and coordinate the body's responses to changes in the environment, and to regulate growth, development, and reproduction. Hormones are chemicals produced by the endocrine system; hormones regulate many body functions.
		The Human Body	The male and female reproductive systems are responsible for producing sex cells necessary for the production of offspring.
		The Human Body	Disease breaks down the structures or functions of an organism. Some diseases are the result of failures of the system. Other diseases are the result of damage by infection from other organisms (germ theory). Specialized cells protect the body from infectious disease. The chemicals they produce identify and destroy microbes that enter the body.

Organisms inherit genetic information in a variety of ways that result in continuity of structure and function between parents and offspring	Students describe sexual and asexual mechanisms for passing genetic materials from generation to generation	The Human Body	Hereditary information is contained in genes. Genes are composed of DNA that makes up the chromosomes of cells.
		The Human Body	Each gene carries a single unit of information. A single inherited trait of an individual can be determined by one pair or by many pairs of genes. A human cell contains thousands of different genes.
		The Human Body	Each human cell contains a copy of all the genes needed to produce a human being.
		The Human Body	In asexual reproduction, all the genes come from a single parent. Asexually produced offspring are genetically identical to the parent.
		The Human Body	In sexual reproduction typically half of the genes come from each parent. Sexually produced offspring are not identical to either parent
	Students describe simple mechanisms related to the inheritance of some physical traits in offspring	The Human Body	In all organisms, genetic traits are passed on from generation to generation.
		The Human Body	Some genes are dominant and some are recessive. Some traits are inherited by mechanisms other than dominance and recessiveness.
		The Human Body	The probability of traits being expressed can be determined using models of genetic inheritance. Some models of prediction are pedigree charts and Punnett squares
Individual organisms and species change over time	Students describe sources of variation in organisms and their structures and relate the variations to survival	The Human Body	The processes of sexual reproduction and mutation have given rise to a variety of traits within a species.
			Changes in environmental conditions can affect the survival of individual organisms with a particular trait. Small differences between parents and offspring can accumulate in successive generations so that descendants are very different from their ancestors. Individual organisms with certain traits are more likely to survive and have offspring than individuals without those traits.
			Human activities such as selective breeding and advances in genetic engineering may affect the variations of species
	Students describe factors responsible for competition within species and the significance of that competition		In all environments, organisms with similar needs may compete with one another for resources.
			Extinction of a species occurs when the environment changes and the adaptive characteristics of a species are insufficient to permit its survival. Extinction of species is common. Fossils are evidence that a great variety of species existed in the past.

			Many thousands of layers of sedimentary rock provide evidence for the long history of Earth and for the long history of changing life forms whose remains are found in the rocks. Recently deposited rock layers are more likely to contain fossils resembling existing species.
			Although the time needed for change in a species is usually great, some species of insects and bacteria have undergone significant change in just a few years
The continuity of life is sustained through reproduction and development	Students observe and describe the variations in reproductive patterns of organisms, including asexual and sexual reproduction		Some organisms reproduce asexually. Other organisms reproduce sexually. Some organisms can reproduce both sexually and asexually.
			There are many methods of asexual reproduction, including division of a cell into two cells, or separation of part of an animal or plant from the parent, resulting in the growth of another individual.
			Methods of sexual reproduction depend upon the species. All methods involve the merging of sex cells to begin the development of a new individual. In many species, including plants and humans, eggs and sperm are produced.
			Fertilization and/or development in organisms may be internal or external
	Students explain the role of sperm and egg cells in sexual reproduction		The male sex cell is the sperm. The female sex cell is the egg. The fertilization of an egg by a sperm results in a fertilized egg.
			In sexual reproduction, sperm and egg each carry one-half of the genetic information for the new individual. Therefore, the fertilized egg contains genetic information from each parent
	Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).		Multicellular organisms exhibit complex changes in development, which begin after fertilization. The fertilized egg undergoes numerous cellular divisions that will result in a multicellular organism, with each cell having identical genetic information.
			In humans, the fertilized egg grows into tissue which develops into organs and organ systems before birth.
			Various body structures and functions change as an organism goes through its life cycle.

			Patterns of development vary among animals. In some species the young resemble the adult, while in others they do not. Some insects and amphibians undergo metamorphosis as they mature.
			Patterns of development vary among plants. In seed-bearing plants, seeds contain stored food for early development. Their later development into adulthood is characterized by varying patterns of growth from species to species.
			As an individual organism ages, various body structures and functions change
	Students observe and describe cell division at the microscopic level and its macroscopic effects		In multicellular organisms, cell division is responsible for growth, maintenance, and repair. In some one-celled organisms, cell division is a method of asexual reproduction.
			In one type of cell division, chromosomes are duplicated and then separated into two identical and complete sets to be passed to each of the two resulting cells. In this type of cell division, the hereditary information is identical in all the cells that result.
			Another type of cell division accounts for the production of egg and sperm cells in sexually reproducing organisms. The eggs and sperm resulting from this type of cell division contain one-half of the hereditary information.
			Cancers are a result of abnormal cell division
Organisms maintain a dynamic equilibrium that sustains life.	Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium		Animals and plants have a great variety of body plans and internal structures that contribute to their ability to maintain a balanced condition.
			An organism's overall body plan and its environment determine the way that the organism carries out the life processes.
			All organisms require energy to survive. The amount of energy needed and the method for obtaining this energy vary among cells. Some cells use oxygen to release the energy stored in food.
			The methods for obtaining nutrients vary among organisms. Producers, such as green plants, use light energy to make their food. Consumers, such as animals, take in energy-rich foods.
			Herbivores obtain energy from plants. Carnivores obtain energy from animals. Omnivores obtain energy from both plants and animals. Decomposers, such as bacteria and fungi, obtain energy by consuming wastes and/or dead organisms.
			Regulation of an organism's internal environment involves sensing the internal environment and changing physiological activities to keep conditions within the range required for survival. Regulation includes a variety of nervous and hormonal

			The survival of an organism depends on its ability to sense and respond to its external environment
	Students describe the importance of major nutrients, vitamins, and minerals in maintaining health and promoting growth, and explain the need for a constant input of energy for living organisms		Food provides molecules that serve as fuel and building material for all organisms. All living things, including plants, must release energy from their food, using it to carry on their life processes.
			Foods contain a variety of substances, which include carbohydrates, fats, vitamins, proteins, minerals, and water. Each substance is vital to the survival of the organism.
			Metabolism is the sum of all chemical reactions in an organism. Metabolism can be influenced by hormones, exercise, diet, and aging.
			Energy in foods is measured in Calories. The total caloric value of each type of food varies. The number of Calories a person requires varies from person to person.
			In order to maintain a balanced state, all organisms have a minimum daily intake of each type of nutrient based on species, size, age, sex, activity, etc. An imbalance in any of the nutrients might result in weight gain, weight loss, or a diseased state.
			Contraction of infectious disease, and personal behaviors such as use of toxic substances and some dietary habits, may interfere with one's dynamic equilibrium. During pregnancy these conditions may also affect the development of the child. Some effects of these conditions are immediate; others may not appear for many years.
Plants and animals depend on each other and their physical environment	Students describe the flow of energy and matter through food chains and food webs		Energy flows through ecosystems in one direction, usually from the Sun, through producers to consumers and then to decomposers. This process may be visualized with food chains or energy pyramids.
			Food webs identify feeding relationships among producers, consumers, and decomposers in an ecosystem.
			Matter is transferred from one organism to another and between organisms and their physical environment. Water, nitrogen, carbon dioxide, and oxygen are examples of substances cycled between the living and nonliving environment

	Students provide evidence that green plants make food and explain the significance of this process to other organisms.		Photosynthesis is carried on by green plants and other organisms containing chlorophyll. In this process, the Sun's energy is converted into and stored as chemical energy in the form of a sugar. The quantity of sugar molecules increases in green plants during photosynthesis in the presence of sunlight.
			The major source of atmospheric oxygen is photosynthesis. Carbon dioxide is removed from the atmosphere and oxygen is released during photosynthesis.
			Green plants are the producers of food which is used directly or indirectly by consumers.
Human decisions and activities have had a profound impact on the physical and living environment	Students describe how living things, including humans, depend upon the living and nonliving environment for their survival		A population consists of all individuals of a species that are found together at a given place and time. Populations living in one place form a community. The community and the physical factors with which it interacts compose an ecosystem.
			Given adequate resources and no disease or predators, populations (including humans) increase. Lack of resources, habitat destruction, and other factors such as predation and climate limit the growth of certain populations in the ecosystem.
			In all environments, organisms interact with one another in many ways. Relationships among organisms may be competitive, harmful, or beneficial. Some species have adapted to be dependent upon each other with the result that neither could survive
			Some microorganisms are essential to the survival of other living things.
			The environment may contain dangerous levels of substances (pollutants) that are harmful to organisms. Therefore, the good health of environments and individuals requires the monitoring of soil, air, and water, and taking steps to keep them safe
	Students describe the effects of environmental changes on humans and other populations		In ecosystems, balance is the result of interactions between community members and their environment.
			The environment may be altered through the activities of organisms. Alterations are sometimes abrupt. Some species may replace others over time, resulting in long-term gradual changes (ecological
			Overpopulation by any species impacts the environment due to the increased use of resources. Human activities can bring about environmental degradation through resource acquisition, urban growth, land-use decisions, waste disposal, etc.
			Since the Industrial Revolution, human activities have resulted in major pollution of air, water, and soil. Pollution has cumulative ecological effects such as acid rain, global warming, or ozone depletion. The survival of living things on our planet depends on the conservation and [illegible] of Earth's resources.

Standard 6: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
Through systems thinking, people can recognize the commonalities that exist among all systems and how parts of a system interrelate and combine to perform specific functions	Students describe the differences between dynamic systems and organizational systems		
	Students describe the differences and similarities between engineering systems, natural systems, and social systems		
	Students describe the differences between open- and closed-loop systems		
	Students describe how the output from one part of a system (which can include material, energy, or information) can become the input to other parts		
Models are simplified representations of objects, structures, or systems used in analysis, explanation, interpretation, or design	Students select an appropriate model to begin the search for answers or solutions to a question or problem		
	Students use models to study processes that cannot be studied directly (e.g., when the real process is too slow, too fast, or too dangerous for direct observation)		
	Students demonstrate the effectiveness of different models to represent the same thing and the same model to represent different things.		Students will use a balance scale to compare and contrast the three types of rocks. Students will create a device for measuring distances in space. Students will create their own invention, using one of the six simple machines
The grouping of magnitudes of size, time, frequency, and pressures or other units of measurement into a series of relative order provides a useful way to deal with the immense range and the changes in scale that affect the behavior and design of systems	Students cite examples of how different aspects of natural and designed systems change at different rates with changes in scale		
	Students use powers of ten notation to represent very small and very large numbers		
Equilibrium is a state of stability due either to a lack of changes (static equilibrium) or a balance between opposing forces (dynamic equilibrium).	Students describe how feedback mechanisms are used in both designed and natural systems to keep changes within desired limits.		
	Students describe changes within equilibrium cycles in terms of frequency or cycle length and determine the highest and lowest values and when they occur.		
Identifying patterns of change is necessary for making predictions about future behavior and conditions	Students observe patterns of change in trends or cycles and make predictions on what might happen in the future		
In order to arrive at the best solution that meets criteria within constraints, it is often necessary to make trade-offs.	Students determine the criteria and constraints and make trade-offs to determine the best decision		
	Students use graphs of information for a decision-making problem to determine the optimum solution		

Standard 7: Students will understand the relationships and common themes that connect mathematics, science, and technology and apply the themes to these and other areas of learning.

Key ideas	Performance Indicators	Harlem Success Academy Curriculum Units	Major Understandings/ Concepts Covered
The knowledge and skills of mathematics, science, and technology are used together to make informed decisions and solve problems, especially those relating to issues of science/technology/society, consumer decision-making, design, and inquiry into phenomena	Students analyze science/technology/society problems and issues at the local level and plan and carry out a remedial course of action		Work Effectively- contributing to the work of a brainstorming group, laboratory partnership, cooperative learning group, or project team; planning procedures; identifying and managing responsibilities of team members; and staying on task, whether working alone or as part of a group *Gathering and Processing Information- accessing information from printed media, electronic databases, and community resources; using the information to develop a definition of the problem and to research possible solutions *Generating and Analyzing Ideas- developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data *Common Themes- observing examples of common unifying themes, applying them to the problem, and using them to better understand the dimensions of the problem *Realizing Ideas- constructing components or models, arriving at a solution, and evaluating the results *Presenting Results- using a variety of media to present the solution and to communicate the results
	Students make informed consumer decisions by seeking answers to appropriate questions about products, services, and systems; determining the cost/benefit and risk/benefit tradeoffs; and applying this knowledge to a potential purchase		
	Students design solutions to real-world problems of general social interest related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in		
	Students describe and explain phenomena by designing and conducting investigations involving systematic observations, accurate measurements, and the identification and control of variables; by inquiring into relevant mathematical ideas; and by using mathematical and technological tools and procedures to assist in the investigation		
Solving interdisciplinary problems involves a variety of skills and strategies, including effective work habits; gathering and processing information; generating and analyzing ideas; realizing ideas; making connections among the common themes of mathematics	Students participate in an extended, culminating mathematics, science, and technology project		

Level K: Self and Others
Content Understandings

The social studies program at the kindergarten level focuses on helping students develop awareness of themselves as growing individuals. Children's unique qualities as well as similarities to others are stressed. Children learn about values, ideas, customs, and traditions through folktales, legends, music, and oral histories. In addition, children's relationships with others in the classroom and the school become sources for social studies learning. Social interaction skills are integral to the kindergarten program. Emphasis is placed on using content that is relevant and personally meaningful. A wide range of interdisciplinary activities can help children grow and develop and gain knowledge and skills. Children also begin to learn about their role as citizens by accepting rights and responsibilities in the classroom and by learning about rules and laws.

Myself and others

My physical self includes gender, ethnicity, and languages.
Each person has needs, wants, talents, and abilities.
Each person has likes and dislikes.
Each person is unique and important.
People are alike and different in many ways.
All people need others.
All people need to learn and learn in different ways.
People change over time.
People use folktales, legends, music, and oral histories to teach values, ideas, and traditions

My family and other families

My family and other families are alike and different

My school and school community

What is a school?

My neighborhood

My neighborhood can be located on a map.
Different people live in my neighborhood

Location of home, school, neighborhood, and community on maps and globes

Land and water masses can be located on maps and a globe.
The United States can be located on a map and a globe

Basic human needs and wants

People define basic human needs and wants.
Families have needs and wants

People helping one another to meet needs and wants (e.g., recycling and conservation projects)

People rely on each other for goods and services in families, schools, and the neighborhood.
People make economic decisions and choices.

Symbols of citizenship

Ci izenship includes an awareness of the symbols of our nation.
Ci izenship includes an understanding of the holidays and celebrations of our nation.
Ci izenship includes knowledge about and a respect for the flag of the United States of America

Rights, responsibilities, and roles of citizenship

All children and adults have responsibilities at home, in school, in the classroom, and in the community.
People have responsibilities as members of different groups at different times in their lives

People making and changing rules and laws

Rules affect children and adults.
People make and changes rules for many reasons

People making rules that involve consideration of others and provide for the health and safety of all

Families develop rules to govern and protect family members.
People in school groups develop rules to govern and protect themselves

Beginning Level Social Studies
Kindergarten

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	* Self and Others (Multiculturalism, Culture, Empathy, Identity) * Concept/Themes (Culture, Identity, Multiculturalism, Citizenship, Nation-State) Students will compare and contrast the present-day customs and traditions surrounding the 4th of July with those of the past
	Students explain those values, practices, and traditions that unite all Americans.	* Self and Others (Multiculturalism, Culture, Empathy, Identity) * Concept/Themes (Culture, Identity, Multiculturalism, Citizenship, Nation-State) Students will examine the national flag and compare its relationship to the words of the poem "The Story of Our Flag" by Beverly Pasca. They will then make red, white, and blue hats and
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a	Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community	* My family & other families (Identity) * Concept/Themes (Culture, beliefs, Identity) Students will exchange information regarding family customs and traditions
	Students recognize how traditions and practices were passed from one generation to the next	* My family & other families (Identity) * Concept/Themes (Culture, Beliefs, Identity) Students will write a letter to their family, asking a family member to send in a traditional, favorite cookie recipe. The recipes will then be compiled,
	Students distinguish between near and distant past and interpret simple timelines	* Self & Others (Change) * Concept/Themes (Culture, Beliefs, Identity) Students will learn the terms today, yesterday and tomorrow

		*Citizenship & Civic Life * Symbols of Citizenship Use calendars to discuss holidays and holiday traditions.
SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students identify individuals who have helped to strengthen democracy in the United States and throughout the world	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) * Symbols of Citizenship Students will use US currency to identify founding fathers
SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity) Students will investigate the music and dance of the early Native Americans

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum
SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses	* Concept/Themes (Identity, Nation-State, Culture, Empathy) Students will learn about Abraham Lincoln and why he is called a Patriot. After reading the story "Young Abraham Lincoln: Log Cabin President", students will discuss what a President is and why Abe Lincoln was so important to the development of America. Students will be shown his portrait on the penny and the five-dollar bill.
	Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn about immigration and the history of Ellis Island

	Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn folk songs and dances from the countries their ancestors originated from
SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points	* Concept/Themes (Citizenship, Nation-State, Culture, Change) * Symbols of Citizenship Use calendars to discuss holidays and holiday traditions.
	Students compare important events and accomplishments from different time periods in world history.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Culture, Change, Empathy) Students will examine a specific event in a certain time period of New York State history and United States history
SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) Students will then sample breads from many cultures like cornbread, tortillas, Mexican sweet bread, matzo, pita bread, steamed buns, chapatis, scones, black bread, fry bread, lefse, and piki
	Students gather and present information about important developments from world history	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn about immigration and the history of Ellis Island
	Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy, Environment) Students will trace the route Columbus took from Spain to the New World
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy, Environment) Students explain different perspectives on the same phenomenon by listening to myths from several civilizations, recognizing the different ways those people explained the same phenomenon (e.g., how the world was created)

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of	Students study how people live, work, and utilize natural resources	* Concept/Themes (Identity, Culture, Multiculturalism, Empathy) * Places and Regions Students will then sample breads from many cultures like cornbread, tortillas, Mexican sweet bread, matzo, pita bread, steamed buns, chapatis, scones, black bread, fry bread, lefse, and piki bread.
	Students will draw maps and diagrams that serve as representations of places, physical features, and objects	* Concept/Themes (Environment) * Places and Regions Students will draw maps of the school layout (classrooms, bathrooms, etc)
	Students locate places within the local community, state, and nation; locate the earth's continents in relation to each other and to principal parallels and meridians.	* Concept/Themes (Environment) * Places and Regions Students will recognize that a globe represents the earth with emphasis that the earth is round and our planet is earth. Also, that blue areas on globe or map indicate water and that brown/green areas indicate land. Students may recognize the United
	Students investigate how people depend on and modify the physical environment	* Concept/Themes (Identity, Environment, Culture, Multiculturalism, Change, Empathy) Students will study the Erie Canal
SS32. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing	Students will ask geographic questions about where places are located; why they are located where they are; what is important about their locations; and how their locations are related to the location of other	* Concept/Themes (Nation-State, Environment, Culture, Multiculturalism) * Places and Regions Students will trace the route Columbus took from Spain to the New World
	Students gather and organize geographic information from a variety of sources and display in a number of ways.	* Concept/Themes (Nation-State, Environment, Culture) * Places and Regions Students will study the cities of New York

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	SS4.1.1 Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.	* Concept/Themes (Scarcity, Environment, Change) Students will able to distinguish between his/her own "Needs" and "Wants". Students will be able to identify scarce resources and tell how we can take care of them (reduce, reuse, recycle) (water, air, soil, and
	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.	* Concept/Themes (Scarcity, Environment, Change, Interdependence) Students will distinguish between what "I want: and what "I can really buy". Students will be able to define scarcity in "our world" and scarcity in "our house".
	Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and what quantities? How shall goods and services be produced? For whom shall goods and services be produced?	* Concept/Themes (Scarcity, Environment, Change, Interdependence) Students may make a mural of people who work in a supermarket, a farm.
	Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions with which all societies and nations must deal	* Concept/Themes (Scarcity, Environment, Change, Interdependence) Students may role play going to a store to buy goods.
		* Concept/Themes (Scarcity, Interdependence) Students will recognize the monetary system
SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life	Students present economic information by developing charts, tables, diagrams and simple graphs	* Concept/Themes (Scarcity, Technology, Interdependence) Students will begin learning about the value of rewards
		* Concept/Themes (Scarcity, Technology, Interdependence) Students will identify U.S. coins.

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	* Concept/Themes (Nation-State, Government, Citizenship, Culture, Interdependence) Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground. Students will share rules at home. Students will learn rules for riding on the bus. Students will identify traffic signs and tell why they are there.
	Students explain the probable consequences of the absence of government and rules.	
	Students understand that social and political systems are based upon people's beliefs	
SS5.2. The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices	Students understand the basic civil values that are the foundation of American constitutional democracy	* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will learn the meaning of the flag; sing patriotic songs
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will recite the Pledge of Allegiance
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will recognize patriotic symbols, the flag, the statue of Liberty, the bald eagle
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students increase their knowledge of patriotic holidays

SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities.	Students understand that citizenship includes an awareness of the holidays, celebrations, and symbols of our nation.	* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will begin to build an understanding of national holidays (Columbus Day, Veterans Day, Thanksgiving, Christmas, Mother's Day, President's Day, Valentine's Day, Independence Day, Martin Luther King Day, Election Day, Earth Day, Father's
	Students examine what it means to be a good citizen in the classroom, school, home, and community	* Concept/Themes (Nation-State, Government, Citizenship, Culture, Interdependence, Empathy) Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground.
	Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school	Students will share rules at home.
	Students understand that effective, informed citizenship is a duty of each citizen, demonstrated by jury service, voting, and community service	* Concept/Themes (Nation-State, Government, Citizenship) Students hold elections for class president
	Students identify basic rights that students have and those that they will acquire as they age	* Concept/Themes (Nation-State, Government, Citizenship) Students will learn about voting responsibilities
SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory	Students participate in activities that focus on a classroom, school, or community issue or problem	
	Students suggest alternative solutions or courses of action to hypothetical or historic problems	* Concept/Themes (Identity, Citizenship, Interdependence, Empathy) Students will contend with a tie vote in class room elections.
	Students evaluate the consequences for each alternative solution or course of action	
	Students prioritize the solutions based on established criteria	
	Students propose an action plan to address the issue of how to solve the problem	

Beginning Level Social Studies
Grade 1

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	* Self and Others (Multiculturalism, Culture, Empathy, Identity) * Concept/Themes (Culture, Identity, Multiculturalism, Citizenship, Nation-State) Students will compare and contrast the present-day customs and traditions surrounding the 4th of July with those of the past
	Students understand the basic ideals of American democracy as explained in the Declaration of Independence and the Constitution and other important documents	* Self and Others (Multiculturalism, Culture, Empathy, Identity) * Concept/Themes (Culture, Identity, Multiculturalism, Citizenship, Nation-State) Students learn the pledge of allegiance
	Students explain those values, practices, and traditions that unite all Americans	* Self and Others (Multiculturalism, Culture, Empathy, Identity) Students will demonstrate in a picture and a sentence their own dream of how they would make the world better using the ideals of Martin Luther King
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a variety of perspectives	Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community	* My family & other families (Identity) * Concept/Themes (Culture, Beliefs, Identity) Students will exchange information regarding family customs and traditions
	Students recognize how traditions and practices were passed from one generation to the next	* My family & other families (Identity) * Concept/Themes (Culture, Beliefs, Identity) Students will compare and contrast the present-day customs and traditions surrounding the 4th of July with those of the past
	Students distinguish between near and distant past and interpret simple timelines	* Self & Others (Change) * Concept/Themes (Culture, Beliefs, Identity) Students will learn the terms today, yesterday and tomorrow
		*Citizenship & Civic Life * Symbols of Citizenship Use calendars to discuss holidays and holiday traditions

Grade 1: My Family and Other Families, Now and Long Ago
Content Understandings

The grade 1 social studies program focuses on helping students learn about their roles as members of a family and school community. The development of iden ity and social interaction are stressed. The students explore self, family, and school through the five standards. Students learn about families now and long ago, as they study different kinds of families hat have existed in different societies and communities. Students also begin to locate places on maps and globes and learn how maps serve as representations of physical features and objects. Building on the level K program, the grade 1 program encourages interdisciplinary learning to assist in developing the content, concepts, and skills outlined for the K-12 social studies program.

My family and other families

- Families and different kinds of families exist in all communi ies and societies though hey may differ.
- Families have beliefs, customs, and tradi ions.
- Families have roles and responsibili ies.
- Families are interdependent.
- Families lived in other places and at different times

History of my family

- Families have a past and they change over time; my family timeline illustrates my family's history.
- Some family beliefs, customs, and traditions are based on family histories.
- People of diverse racial, religious, national, and ethnic groups transmit their beliefs, customs, and traditions.
- Folktales, biographies, oral histories, and legends relate family histories

My community and local region

- Different events, people, problems, and ideas make up my community's history.
- Folklore, myths, legends, and o her cultural contribu ions have helped shape our community and local region.
- Monuments and important places are located in my neighborhood.
- Communities are connected economically and geographically.
- People exchange elements of heir cultures.

Places in my community and local region

- Places can be located on maps and on a globe.
- Maps and diagrams serve as representations of places, physical features, and objects.
- Cardinal direc ions can be used to locate places and physical features.
- Symbols represent places and can be used to locate geographic features and physical characteristics.
- People depend on and modify their physical environments to meet basic needs

Challenge of meeting needs and wants

- Scarcity means that people's wants exceed their limited resources.
- Communities provide facili ies and services to help satisfy he needs and wants of people who live there.
- People use tools, technologies, and other resources to meet their needs and wants.
- People in communities must make choices due to unlimited needs& wants and scarce resources; these choices involve costs.
- Through work, people in communities earn income to help meet heir needs and wants

Economic decision making

- People make decisions about how to spend the money they earn.
- People work to earn money to purchase the goods and services they need and/or want.

Symbols of citizenship

- Citizenship includes knowledge about and respect for the flag of the United States of America, including an understanding about its display and use.
- Citizenship includes a pledge of allegiance or loyalty to the United States of America

Rights, responsibilities, and roles of citizenship

- Students, teachers, and staff are all ci izens of the school community and have rights and responsibilities.

People making and changing rules and laws

- People form governments in order to develop rules and laws to govern and protect themselves.
- Key terms related to the study of government include: democracy, power, citizenship, nation-state, and justice.
- People plan, organize, and make decisions for the common good.
- Students can participate in problem solving, decision making, and conflict resolution

SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity) Students will identify the ethnic/national origin of foods commonly found in America

	Students identify individuals who have helped to strengthen democracy in the United States and throughout the world	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) * Symbols of Citizenship Students will use US currency to identify founding fathers
SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) Students will learn about the Revolutionary War
	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and state	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity) Students will identify the ethnic/national origin of foods commonly found in America
	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity) Students will investigate the music and dance of the early Native Americans

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum
SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses	* Concept/Themes (Identity, Nation-State, Culture, Empathy) Students will learn about Abraham Lincoln and why he is called a Patriot. After reading the story "Young Abraham Lincoln: Log Cabin President", students will discuss what a President is and why Abe Lincoln was so important to the development of America.

	Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn about immigration and the history of Ellis Island
	Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn folk songs and dances from the countries their ancestors originated from
SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students distinguish between past, present, and future time periods.	* Concept/Themes (Citizenship, Nation-State, Culture, Change) Students will examine the classrooms (e.g.. One-room school house) and learning of the 19th century
	Students develop timelines that display important events and eras from world history.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Culture, Change, Empathy) Students will examine a specific time period of New York State history (e.g.. Building New York City)
	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points	* Concept/Themes (Citizenship, Nation-State, Culture, Change) * Symbols of Citizenship Use calendars to discuss holidays and holiday traditions.
	Students compare important events and accomplishments from different time periods in world history.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Culture, Change, Empathy) Students will examine a specific event in a certain time period of New York State history and United States history
SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) Students will sample breads from many cultures like cornbread, tortillas, Mexican sweet bread, matzo, pita bread, steamed buns, chapattis, scones, black bread, fry bread, lefse, and piki

	Students gather and present information about important developments from world history	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will learn about immigration and the history of Ellis Island
	Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy, Environment) Students will trace the route Columbus took from Spain to the New World
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy, Environment) Students explain different perspectives on the same phenomenon by listening to myths from several civilizations, recognizing the different ways those people explained the same phenomenon (e.g., how the world was created)
	Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.	* Concept/Themes (Identity, Nation-State, Change, Culture, Multiculturalism, Empathy, Environment) Students will research customs of various countries or ethnic groups within the context of holidays around the world
	Students view historic events through the eyes of those who were there, as shown in their art, writing, music, and artifacts	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity) Students will investigate the music and dance of the early Native Americans

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of	Students study how people live, work, and utilize natural resources	* Concept/Themes (Identity, Environment, Culture, Change, Empathy, Interdependence) * Places and Regions * Human Systems Students will name a natural resource they use, explain why this resource is important and how they acquire it and explain how other people use this resource.
	Students will draw maps and diagrams that serve as representations of places, physical features, and objects.	* Concept/Themes (Environment) * Places and Regions * Human Systems Students will draw maps of their neighborhood
	Students locate places within the local community, state, and nation; locate the earth's continents in relation to each other and to principal parallels and meridians.	* Concept/Themes (Environment) * Places and Regions * Human Systems Students will recognize that a globe represents the earth with emphasis that the earth is round and our planet is earth. Also, that blue areas on globe or map indicate water and that brown/green areas indicate land. Students may recognize the United
	Students investigate how people depend on and modify the physical environment	* Concept/Themes (Identity, Environment, Culture, Multiculturalism, Change, Empathy) Students will study the Erie Canal
SS32. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing	Students will ask geographic questions about where places are located; why they are located where they are; what is important about their locations; and how their locations are related to the location of other	* Concept/Themes (Nation-State, Environment, Culture, Multiculturalism) * Places and Regions Students will trace the route Columbus took from Spain to the New World
	Students gather and organize geographic information from a variety of sources and display in a number of ways.	* Concept/Themes (Nation-State, Environment, Culture) * Places and Regions Students will study the cities of New York

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	SS4.1.1 Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.	* Concept/Themes (Environment, Change, Interdependence, Scarcity) Students will able to identify between his/her own "Needs" and "Wants". Students will be able to identify scarce resources. They will be able to name a good or service they use in their daily lives and explain why they need these
	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.	* Concept/Themes (Scarcity, Environment, Change, Interdependence) * Places and Regions Students will become aware of the importance of the roles of people on farms and in the cities.
	Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and what quantities? How shall goods and services be produced? For whom shall goods and services be produced?	* Concept/Themes (Scarcity, Environment, Change, Interdependence) Students may make a mural of people who work in a supermarket, a farm.
	Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions with which all societies and nations must deal.	* Concept/Themes (Scarcity, Environment, Change, Interdependence) * Human Systems Students may role play shopping with a set dollar amount (buying goods, services, food)
		* Concept/Themes (Scarcity, Technology, Interdependence) Students will use the monetary system.
SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life.	Students collect economic information from textbooks, standard references, newspapers, periodicals, and other primary and secondary sources.	* Concept/Themes (Scarcity, Technology) Students will clip coupons
		* Concept/Themes (Scarcity, Technology, Multiculturalism) Students will identify foreign coins

	Students present economic information by developing charts, tables, diagrams and simple graphs	* Concept/Themes (Scarcity, Technology) Students may role play shopping with a set dollar amount (buying goods, services, food) and then diagram how that amount was spent

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	Students hold elections for class president
	Students explain the probable consequences of the absence of government and rules	Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground. Students will share rules at home. Students will learn rules for riding on the bus
	Students describe the basic purposes of government and the importance of civic life	Students will learn about voting responsibilities.
	Students understand that social and political systems are based upon people's beliefs	Students study colonial America
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	* Concept/Themes (Nation-State, Government, Citizenship, Culture, Interdependence) Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground. Students will share rules at home. Students will learn rules for riding on the bus. Students will identify safety and traffic rules in place in our community.
	Students explain the probable consequences of the absence of government and rules.	
	Students describe the basic purposes of government and the importance of civic life	
	Students understand that social and political systems are based upon people's beliefs	

SS5.2 The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices and establish a system of shared and limited government.	Students understand the basic civil values that are the foundation of American constitutional democracy.	* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will learn the meaning of the flag
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will recite the Pledge of Allegiance
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will recognize patriotic symbols, the flag, the statue of Liberty, the bald eagle
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students increase their knowledge of patriotic holidays
		* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students sing patriotic songs
	Students know what the United States Constitution is and why it is important	* Concept/Themes (Citizenship, Nation-State) * Symbols of Citizenship Students will study the Constitution
	Students identify their legislative and executive representatives at the local, state, and national governments.	* Concept/Themes (Citizenship, Nation-State) * Symbols of Citizenship Students may take a field trip to City Hall
SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities.	Students understand that citizenship includes an awareness of the holidays, celebrations, and symbols of our nation.	* Concept/Themes (Citizenship, Nation-State, Culture) * Symbols of Citizenship Students will begin to build an understanding of national holidays (Columbus Day, Veterans Day, Thanksgiving, Christmas, Mother's Day, President's Day, Valentine's Day, Independence Day, Martin Luther King Day, Election Day, Earth Day, Father's
	Students examine what it means to be a good citizen in the classroom, school, home, and community	* Concept/Themes (Nation-State, Government, Citizenship, Culture, Interdependence, Empathy) * Civic Values Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground.
	Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school	Students will be expected to

	Students examine the basic principles of the Declaration of Independence and the Constitutions of the United States and New York State	* Concept/Themes (Citizenship, Nation-State) Students will study the Constitution
	Students understand that effective, informed citizenship is a duty of each citizen, demonstrated by jury service, voting, and community service	* Concept/Themes (Nation-State, Government, Citizenship) * Civic Values Students hold elections for class president
	Students identify basic rights that students have and those that they will acquire as they age	* Concept/Themes (Nation-State, Government, Citizenship, Empathy) * Civic Values Students will learn about voting responsibilities
SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory	Students show a willingness to consider other points of view before drawing conclusions or making judgments	* Concept/Themes (Nation-State, Change, Identity, Citizenship, Empathy) * Decision Making Students will work in groups to solve issues
	Students participate in activities that focus on a classroom, school, or community issue or problem	
	Students suggest alternative solutions or courses of action to hypothetical or historic problems	* Concept/Themes (Interdependence, Identity, Citizenship, Empathy) Students will lead a schoolwide campaign (e.g.. To recycle paper)
	Students evaluate the consequences for each alternative solution or course of action	
	Students prioritize the solutions based on established criteria	
	Students propose an action plan to address the issue of how to solve the problem	

Grade 2: My Community and Other United States Communities
Cotent Understanding

In the grade 2 social studies program, students explore rural, urban, and suburban communities, concentrating on communities in the United States. The student's own community can serve as an example for studying about and understanding other communities. Students study about communities from the perspectives of the five social studies learning standards. Community studies should include content examples from cultures other than the students' own, and from a variety of perspectives including geographic, socioeconomic, and ethnic. Students continue to learn how to locate places on maps and globes and how different communities are influenced by geographic and environmental factors. They also study about the rights and responsibilities of citizenship in their communities

My community and region today

- My urban, suburban, or rural community can be located on a map.
- Urban, suburban, and rural communities differ from place to place.
- Events, people, traditions, practices, and ideas make up my urban, suburban, or rural community.
- Communities in the future may be different in many ways.
- My urban, suburban, or rural community has changed over time.

People depending on and modifying the physical environment

- Rural, urban, and suburban communities are influenced by geographic and environmental factors.
- Lifestyles in rural, urban, and suburban communities are influenced by environmental and geographic fact

Challenge of meeting needs and wants

- Rural, urban, and suburban communities provide facilities and services to help meet the needs and wants of the people who live there.
- People in rural, urban, and suburban communities are producers and consumers of goods and services.
- People in rural, urban, and suburban communities must make choices due to unlimited needs and wants and limited resources

People using human, capital, and natural resources

- Scarcity of resources requires people to make choices in urban, rural, and suburban communities

Economic decision making

- Rural, urban, and suburban communities collect taxes to provide services for the public benefit.
- Rural, urban, and suburban communities make decisions about how to spend the taxes they collect

Symbols of citizenship

- Citizenship includes an understanding of the significance of the flag of the United States of America, inclu an understanding about its display and use.
- People living in urban, rural, and suburban communities celebrate various holidays

Rights, responsibilities, and roles of citizenship

- People living in rural, urban, and suburban communities may have conflicts over rules, rights, and respons
- Citizens can participate in decision making, problem solving, and conflict resolution

Making and changing rules and laws

- People in rural, urban, and suburban communities develop rules and laws to govern and protect commun
- Our local communities have elected and appointed leaders who make, enforce, and interpret rules and lav

Beginning Level Social Studies
Grade 2

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	* Self and Others (Multiculturalism, Culture, Empathy, Identity) * Concept/Themes (Culture, Identity, Interdependence, Multiculturalism, Change, Nation-State) Students will study the first inhabitants of America
	Students understand the basic ideals of American democracy as explained in the Declaration of Independence and the Constitution and other important documents	* Concept/Themes (Culture, Citizenship, Identity, Interdependence, Multiculturalism, Nation-State) Students will study the first American colonies
	Students explain those values, practices, and traditions that unite all Americans	* Self and Others (Multiculturalism, Culture, Empathy, Identity, Nation-State, Citizenship) Students will explain how an ideal of Martin Luther King transfers into their own life experience
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a variety of perspectives	Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community	* My family & other families (Identity) * Concept/Themes (Empathy, Multiculturalism, Culture, Identity, Nation-State, Interdependence, Change) Students will conduct family interviews, collect family memorabilia such as letters, diaries, photographs
	Students recognize how traditions and practices were passed from one generation to the next	
	Students distinguish between near and distant past and interpret simple timelines	* My family & other families (Identity) * Concept/Themes (Change, Empathy, Multiculturalism, Culture, Interdependence, Citizenship) Students will create family trees
SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.	* Self & Others (Identity, Change) * Concept/Themes (Empathy, Culture, Multiculturalism, Interdependence, Change, Technology, Nation-State) Students will identify cooking and eating utensils used by people of other cultures.

	Students classify information by type of activity; social, political, economic, technological, scientific, cultural, or religious	* Concept/Themes (Identity, Empathy, Culture, Interdependence, Multiculturalism, Change, Technology, Nation-State) *Citizenship & Civic Life * Symbols of Citizenship Students will investigate American folklore, including Johnny Apple seed,
	Students identify individuals who have helped to strengthen democracy in the United States and throughout the world	* Concept/Themes (Identity, Empathy, Culture, Interdependence, Multiculturalism, Change, Technology, Nation-State) *Citizenship & Civic Life * Symbols of Citizenship Students will draw portraits of the
SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.	* Concept/Themes (Identity, Empathy, Culture, Interdependence, Multiculturalism, Change, Nation-State) Students will learn about the Revolutionary War
	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and state.	* Self & Others (Identity, Change) * Concept/Themes (Empathy, Culture, Multiculturalism, Interdependence, Change, Technology, Nation-State) Students will identify cooking and eating utensils used by people of other
	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts	* Self & Others (Identity, Change) * Concept/Themes (Empathy, Culture, Multiculturalism, Interdependence, Nation-State) Students may act out stories, fables, myths and legends to learn how individuals have solved problems, made important contributions, and influenced the lives of others as shown in their

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum
SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses	* Concept/Themes (Environment, Identity, Change, Culture, Empathy, Nation-State) Students will investigate colonization, immigration, early settlements and westward movement. Students will read about children from the past who lived in different countries. Students may celebrate Harriet Tubman Day and may discuss the Underground Railroad Students will learn about immigration and the history of Ellis Island

	Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop	
	Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy) Students will research customs of various countries or ethnic groups within the context of holidays around the world
SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students distinguish between past, present, and future time periods.	* Concept/Themes (Citizenship, Nation-State, Culture, Change) Students will research the one-room school house of the 19th century
	Students develop timelines that display important events and eras from world history.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Culture, Change, Empathy) Students will examine a specific time period of New York State history (e.g.. Building New York City)
	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points	* Concept/Themes (Citizenship, Nation-State, Culture, Change) * Symbols of Citizenship Use calendars from 19th century and today to compare holidays and holiday traditions
		* Concept/Themes (Citizenship, Nation-State, Culture, Change) * Symbols of Citizenship Students will construct picture timelines that show important events in their own lives, including descriptions of the events and explanations of why they were important
	Students compare important events and accomplishments from different time periods in world history.	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Culture, Change, Empathy) Students will examine a specific event in a certain time period of New York State history and United States history
SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities	* Concept/Themes (Identity, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) Students will research customs of various countries or ethnic groups within the context of holidays around the world

	Students gather and present information about important developments from world history	* Self & Others (Identity, Change) * Concept/Themes (Empathy, Culture, Multiculturalism, Interdependence, Change, Technology, Nation-State) Students will present their family immigration history
	Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices.	* Concept/Themes (Identity, Interdependence, Government, Citizenship, Nation-State, Multiculturalism, Culture, Change, Empathy) * Environment and Society * Factors of Production * Economic Systems Compare and contrast urban, rural, and
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts	* Concept/Themes (Identity, Nation-State, Culture, Multiculturalism, Empathy, Environment) Students explain different perspectives on the same phenomenon by listening to myths from several civilizations, recognizing the different ways those people explained the same phenomenon (e.g., how the world was created)
	Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.	* Concept/Themes (Identity, Nation-State, Change, Culture, Multiculturalism, Empathy, Environment) Students will research customs of various countries or ethnic groups within the context of holidays around the world
	Students view historic events through the eyes of those who were there, as shown in their art, writing, music, and artifacts.	* Concept/Themes (Multiculturalism, Culture, Empathy, Beliefs, Identity, Environment, Change) Students may act out stories, fables, myths and legends to learn how individuals have solved problems, made important contributions, and influenced the lives of others as shown in their

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of	Students study how people live, work, and utilize natural resources	* Concept/Themes (Identity, Culture, Multiculturalism, Change, Empathy, Interdependence) * Places and Regions * Environment and Society Students will read about children living in other cultures to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important components of culture.
	Students will draw maps and diagrams that serve as representations of places, physical features, and objects.	* Concept/Themes (Change, Nation-State) * Places and Regions * Environment and Society Students will identify and explain that different types of information can be found on maps and globes
	Students locate places within the local community, state, and nation; locate the earth's continents in relation to each other and to principal parallels and meridians.	* Concept/Themes (Change, Nation-State) * Places and Regions * Environment and Society Students will recognize that a globe represents the earth with emphasis that the earth is round and our planet is earth. Also, that blue areas on globe or map indicate water and that brown/green areas indicate land and that the land is divided into political entities. Students will recognize lands
	Students identify and compare the physical, human, and cultural characteristics of different regions and people.	* Concept/Themes (Identity, Culture, Multiculturalism, Change, Empathy, Interdependence, Technology, Nation-State, Interdependence) * Places and Regions * Environment and Society Students will read about children living in other regions to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important
	Students investigate how people depend on and modify the physical environment	* Concept/Themes (Scarcity, Interdependence, Change, Culture, Technology) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production * Economic Systems Compare and contrast urban rural, and

SS32. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing geographic information	Students ask geographic questions about where places are located; why they are located where they are, what is important about their locations, and how their locations are related to the location of other people and places	* Concept/Themes (Interdependence, Nation-State, Culture) * Places and Regions * Environment and Society Students will demonstrate the use of a compass rose. Students will recognize lands and water bordering the United States
	Students gather and organize geographic information from a variety of sources and display in a number of ways.	* Concept/Themes (Interdependence, Nation-State, Change, Culture, Identity) * Places and Regions * Environment and Society Students will map out the cities of NY

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	SS4.1.1 Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.	* Concept/Themes (Interdependence, Change, Culture) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production Students will share information on parent professions and workplaces. They will read stories about various community helpers. They may visit a farm to learn the importance of farming and agriculture.
	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.	* Concept/Themes (Scarcity, Interdependence, Change, Culture, Technology) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production * Economic Systems Compare and contrast urban rural, and
	Students know that scarcity requires individuals to make choices and that those choices involve costs.	* Concept/Themes (Scarcity, Interdependence, Change, Culture) * Places and Regions * Environment and Society *Needs and Wants Students will read about children living in other cultures to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important
	Students study about how the availability and distribution of resources is important to a nation's economic growth	* Concept/Themes (Interdependence, Change, Culture, Scarcity) * Places and Regions * Environment and Society *Needs and Wants *Factors of Production Students will sequence a product from its origin to its final form (e.g. peanuts
	Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and what quantities? How shall goods and services be produced? For whom shall goods and services be produced?	* Concept/Themes (Interdependence, Change, Culture, Scarcity, Technology) * Places and Regions * Environment and Society *Needs and Wants *Factors of Production Identify basic goods and services that are used in their community including how they are produced, for whom they are produced, and who produces or

	Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions with which all societies and nations must deal.	* Concept/Themes (Interdependence, Change, Culture, Scarcity, Technology) * Places and Regions * Environment and Society *Needs and Wants *Factors of Production Students may role play shopping (merchant and customer) with a set dollar amount (buying goods, services,
SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life.	Students locate economic information, using card catalogs, computer databases, indices, and library guides	* Concept/Themes (Scarcity, Technology) * Places and Regions * Environment and Society *Needs and Wants *Factors of Production * Economic Systems Students will continue to learn about
		* Concept/Themes (Scarcity, Technology, Culture, Multiculturalism) * Places and Regions * Environment and Society * Economic Systems Students will compare various
	Students collect economic information from textbooks, standard references, newspapers, periodicals, and other primary and secondary sources. Students make hypotheses about economic issues and problems, testing, refining, and eliminating hypotheses and developing new ones when necessary	* Concept/Themes (Scarcity, Technology) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production Students will compare prices for same items in different locations (e.g.. New York vs. New Jersey)
	Students present economic information by developing charts, tables, diagrams and simple graphs	* Concept/Themes (Scarcity, Technology) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production Students may role play shopping with a set dollar amount (buying goods, services, food) and then diagram how

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	Students hold elections for class president
	Students explain the probable consequences of the absence of government and rules	Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground. Students will share rules at home. Students will learn rules for riding on the bus
	Students describe the basic purposes of government and the importance of civic life	Students will learn about voting responsibilities.
	Students understand that social and political systems are based upon people's beliefs	Students study colonial America
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Empathy, Change) * Citizenship and Civic Life Students will identify and explain the key terms and concepts related to our democratic government, including freedom, power, justice and choice.
	Students explain the probable consequences of the absence of government and rules.	Students will explain why we need rules and demonstrate what would happen if there were no rules. Students will explain the role of the police and how they are 'supposed' to enforce the rules and laws that govern our community
	Students describe the basic purposes of government and the importance of civic life	* Concept/Themes (Nation-State, Culture, Multiculturalism, Empathy, Change) * Citizenship and Civic Life * Environment and Society Students will read about children living in other cultures to learn about their
	Students understand that social and political systems are based upon people's beliefs	
	Students discuss how and why the world is divided into nations and what kinds of governments other nations have	
SS5.2 The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices and establish a system of shared and limited government.	Students explain how the Constitution of New York State and the United States and the Bill of Rights are the basis for democratic values in the United States	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Empathy, Change) * Citizenship and Civic Life Students compare governmental structures of the United States and create a list of basic civic values and discuss how these can best be modeled on the personal and classroom level

	Students understand the basic civil values that are the foundation of American constitutional democracy.	* Concept/Themes (Citizenship, Nation-State, Culture) * Citizenship and Civic Life Students will recognize patriotic symbols, the flag, the statue of Liberty, the bald eagle
		* Concept/Themes (Citizenship, Nation-State, Culture) * Citizenship and Civic Life Students increase their knowledge of patriotic holidays
		* Concept/Themes (Citizenship, Nation-State, Culture) * Citizenship and Civic Life Students sing patriotic songs
		* Concept/Themes (Citizenship, Nation-State, Culture, Empathy) * Citizenship and Civic Life Students may participate in community service projects like making cards for servicemen and visiting the elderly
	Students know what the United States Constitution is and why it is important	* Concept/Themes (Nation-State, Government, Culture) * Citizenship and Civic Life Students will study why the U. S. Constitution was written
	Students understand that the United States Constitution and the Constitution of the State of New York are written plans for organizing the functions of government	* Concept/Themes (Nation-State, Government, Culture) * Citizenship and Civic Life Students will study why the U. S. and NY Constitutions were written
	Students identify their legislative and executive representatives at the local, state, and national governments.	* Concept/Themes (Nation-State, Government, Culture) * Citizenship and Civic Life Students will explore the qualifications of candidates for the office of President of the United States
SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities	Students understand that citizenship includes an awareness of the holidays, celebrations, and symbols of our nation.	* Concept/Themes (Nation-State, Government, Culture) * Citizenship and Civic Life Students will demonstrate an understanding of patriotic holidays.
	Students examine what it means to be a good citizen in the classroom, school, home, and community	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Empathy, Change) * Citizenship and Civic Life Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground.
	Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school	Students may discuss safety rules for the playground.
	Students examine the basic principles of the Declaration of Independence and the Constitutions of the United States and New York State	Interdependence
	Students understand that effective, informed citizenship is a duty of each citizen, demonstrated by jury service, voting, and community service	* Concept/Themes (Nation-State, Government, Culture, Empathy, Interdependence) * Citizenship and Civic Life Students will learn about volunteer work (e.g., Soup kitchens)

	Students identify basic rights that students have and those that they will acquire as they age	* Concept/Themes (Nation-State, Government, Culture, Empathy, Interdependence) * Citizenship and Civic Life Students will learn about civic responsibilities
SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory	Students show a willingness to consider other points of view before drawing conclusions or making judgments	* Concept/Themes (Nation-State, Government, Culture, Empathy,Interdependence) * Citizenship and Civic Life * Decision Making Students will work in groups to solve issues
	Students participate in activities that focus on a classroom, school, or community issue or problem	
	Students suggest alternative solutions or courses of action to hypothetical or historic problems Students evaluate the consequences for each alternative solution or course of action Students prioritize the solutions based on established criteria Students propose an action plan to address the issue of how to solve the problem	* Concept/Themes (Nation-State, Government, Culture, Empathy, Interdependence) * Citizenship and Civic Life * Decision Making Students will learn about homelessness and what they may do to help (e.g.. volunteer work, donations, advocacy)

Beginning Level Social Studies
Grade3

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	* Concept/Themes (Culture, Identity, Interdependence, Change, Nation-State, Traditions) Students read stories about the early days of American society and discuss the way of life of those times.
	Students understand the basic ideals of American democracy as explained in the Declaration of Independence and the Constitution and other important documents	* Concept/Themes (Culture, Identity, Change, Nation-State, Traditions) Students compare the characters and events described in historical fiction with primary sources such as historic sites themselves; artifacts of the times found in museums and at state historic sites; journals, diaries, and photographs of the historical figures in stories; and news articles and other records from the period in order to judge the historical accuracy and determine the variety of perspectives included in the
	Students explain those values, practices, and traditions that unite all Americans	* Concepts/Themes (Culture, Empathy, Identity, Nation-State, American Traditions, Rights, Responsibilities) * Civic Values * Citizenship and Civic Life Students will explain how an ideal of Martin Luther King transfers into their
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a variety of perspectives.	Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community	* Concept/Themes (Traditions, Diversity, Empathy, Multiculturalism, Culture, Identity, Nation-State, Change) Students compare and contrast various ethnic experiences in New York State and the United States. Create table maps comparing past ethnic settlements and present day
		* Concept/Themes (Traditions, Diversity, Empathy, Multiculturalism, Culture, Identity) Discuss the importance of values and tolerance of others in different
	Students recognize how traditions and practices were passed from one generation to the next	* Concept/Themes (Traditions, Diversity, Empathy, Multiculturalism, Culture, Identity, Change) List the various elements of culture
	Students distinguish between near and distant past and interpret simple timelines	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change) Students may chose one of the original colonies and create a timeline of its

Grade 3: Communities Around the World—Learning About People and Places
Cotent Understanding

In the grade 3 social studies program, students study about communities throughout the world. The five social studies standards form the basis for this investigation as students learn about the social, political, geographic, economic, and historic characteristics of different world communities. Students learn about communities that reflect the diversity of the world's peoples and cultures. They study Western and non-Western examples from a variety of geographic areas. Students also begin to learn about historic chronology by placing important events on timelines. Students locate world communities and learn how different communities meet their basic needs and wants. Students begin to compare the roles of citizenship and the kinds of governments found in various world communities

Cultures and civilizations

- What is a culture? What is a civilization?
- How and why do cultures change?
- Where do people settle and live? Why?
- People in world communities exchange elements of their cultures.
- People in world communities use legends, fo ktales, oral histories, biographies, autobiographies, and histc narratives to transmit values, ideas, beliefs, and traditions.
- People in world communities celebrate their accomplishments, achievements, and contributions.
- Historic events can be viewed through the eyes of those who were there, as shown in their art, writings, music, and artifacts.

Communities around the world

- People of similar and different cultural groups often live together in world communities.
- World communities have social, political, economic, and cultural similarities and differences.
- World communities change over time.
- Important events and eras of the near and distant past can be displayed on timelines.
- Calendar time can be measured in terms of years, decades, centuries, and millennia, using BC &AD as re
- All people in world communities need to learn and they learn in different ways.
- Families in world communities differ from place to place.
- Beliefs, customs, and traditions in world communities are learned from others and may differ from place tc
- Different events, people, problems, and ideas make up world communities.
- People in world communities may have different interpretations and perspectives about important issues and historic events.

The location of world communities

- World communities can be located on maps and globes (latitude and longitude).
- The spatial relationships of world communities can be descr bed by direction, location, distance, and scale
- Regions represent areas of Earth's surface with unifying geographic characteristics.
- World communities can be located in relation to each other and to principal parallels and meridians.
- Geographic representations such as aerial photographs and satellite-produced images can be used to loc world communities.
- Earth's continents and oceans can be located in relation to each other and to principal parallels and merid

Physical, human, and cultural characteristics of world communities

- The causes and effects of human migration vary in different world regions.
- The physical, an understanding about its display and use.
- Interactions between economic activities and geographic factors differ in world communities.
- The factors that influence human settlements differ in world communities

People depending on and modifying their physical environments

- People living in world communities depend on and modify their physical environments in different ways.
- Lifestyles in world communities are influenced by environmental and geographic factors.
- The development of world communities is influenced by environmental and geographic factors

Challenge of meeting needs and wants in world communities

- Societies organize their economies to answer three fundamental economic questions: What goods and services should be produced and in what quantities? How shall goods and services be produced? For whom shall goods and services be produced?
- Human needs and wants differ from place to place.
- People in world communities make choices due to unlimited needs and wants and limited resources.
- People in world communities must depend on others to meet their needs and wants.
- Production, distribution, exchange, and consumption of goods and services are economic decisions all societies must make.
- People in world communities use human, capital, and natural resources.
- People in world communities locate, develop, and make use of natural resources.
- Resources are important to economic growth in world communities.

Economic decision making in world communities

- Production, distribution, exchange, and consumption of goods and services are economic decisions which communities must make.
- Economic decisions in world communities are influenced by many factors

Symbols of citizenship in world communities

- People in world communities celebrate various holidays and festivals.
- People in world communities use monuments and memorials to represent symbols of their nations

People making and changing rules and laws

- People in world communities form governments to develop rules and laws to govern community members
- People in world communities may have conflicts over rules, rights, and responsibilities.
- The processes of selecting leaders, solving problems, and making decisions differ in world communities

Governments around the world

- Governments in world communities organize to provide functions people cannot provide as individuals.
- Governments in world communities have the authority to make, carry out, and enforce laws and manage disputes among them.
- Governments in world communities develop rules and laws.
- Governments in world communities plan, organize, and make decisions

SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.	* Concept/Themes (Empathy, Multiculturalism, Culture, Interdependence, Change) Students may research and present an oral report on famous African American
	Students classify information by type of activity; social, political, economic, technological, scientific, cultural, or religious	* Concept/Themes (Culture, Technology, Citizenship, Change) Students will give examples of three contributions made by individuals and groups in the development of US History. Students will compare and contrast similarities and differences between their contributions.

	Students identify individuals who have helped to strengthen democracy in the United States and throughout the world	* Concept/Themes (Nation-State, Culture, Empathy, Identity, Change) *Citizenship and Civic Life Students will identify Americans who have helped to strengthen democracy (e.g. Martin Luther King, George Washington, Squanto) * Concept/Themes (Culture, Change, Interdependence, Nation-State, Technology) Students may research and present an oral report on famous African American
SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change, Technology, Culture, Interdependence) Students will learn about the Revolutionary War
	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and state.	* Concept/Themes (Identity, Change, Empathy, Culture, Multiculturalism, Interdependence, Change, Technology, Nation-State) Students compare and contrast various ethnic experiences in New York State and the United States. Create table maps comparing past ethnic settlements and present day
	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts	* Concept/Themes (Culture, Identity, Change, Nation-State, Traditions) Students compare the characters and events described in historical fiction with primary sources such as historic sites themselves; artifacts of the times found in museums and at state historic sites; journals, diaries, and photographs of the historical figures in stories; and news articles and other records from the period in order to judge the historical accuracy and determine the variety of perspectives included in the story. (then and now).

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum

SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses	* Concept/Themes (Environment, Identity, Change, Culture, Empathy, Nation-State, Multiculturalism, Technology) Students will investigate colonization, immigration, early settlements and westward movement. Students will read about children from the past who lived in different countries.
	Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop	* Concept/Themes (Culture, Identity, Change, Nation-State, Traditions) Students compare the characters and events described in historical fiction with primary sources such as historic sites themselves; artifacts of the times found in museums and at state historic sites; journals, diaries, and photographs of the historical figures in stories; and news articles and other records from the period in order to judge the historical accuracy and determine the variety of perspectives included in the
	Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.	* Concept/Themes (Culture, Multiculturalism, Identity, Change, Nation-State, Traditions) Students will research customs of various countries or ethnic groups within the context of holidays around the world
SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students distinguish between past, present, and future time periods.	* Concept/Themes (Interdependence, Culture, Identity, Change, Nation-State, Technology, Empathy) Students may chose an early invention and describe the changes over time.
	Students develop timelines that display important events and eras from world history.	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change) Students may chose one of the original colonies and create a timeline of its important events.
	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points	* Concept/Themes (Sequence, Interdependence, Culture, Change, Nation-State, Technology, Empathy) Make a timeline using a theme that can be traced throughout world history (e.g. the history of farming)

		* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change) Students may chose one of the original colonies and create a timeline of its important events. * Concept/Themes (Culture, Identity, Change, Traditions, Sequence) Students will construct picture timelines that show important events in their own lives, including descriptions of the events and explanations of why they were important.
	Students compare important events and accomplishments from different time periods in world history.	Students will learn about the Revolutionary War
SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change, Technology) Students read stories about the colonies of early days of American society and discuss the way of life of those times. * Concept/Themes (Culture, Multiculturalism, Empathy, Nation-State, Change) Students will research customs of various countries or ethnic groups within the context of holidays around the world

	Students gather and present information about important developments from world history	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change) Students may chose one of the original colonies and create a timeline of its important events.
	Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices.	* Concept/Themes (Historic Events, Sequence, Empathy, Nation-State, Change) * Places and Regions * Environment and Society Students will investigate colonization, immigration, early settlements and westward movement
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts	* Concept/Themes (interdependence, Historic Events, Nation-State, Culture, Change) Students state the pros/cons of a trend in world history (e.g. colonization of Africa vs. the preservation of the animals)
	Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.	* Concept/Themes (interdependence, Empathy, Culture, Change) * Citizenship and Civic Life Students will research common customs (e.g. Marriage) of various countries or ethnic groups
	Students view historic events through the eyes of those who were there, as shown in their art, writing, music, and artifacts.	* Concept/Themes (Culture, Identity, Change, Nation-State, Traditions) Students compare the characters and events described in historical fiction with primary sources such as historic sites themselves; artifacts of the times found in museums and at state historic sites; journals, diaries, and photographs of the historical figures in stories; and news articles and other records from the period in order to judge the historical accuracy and determine the variety of perspectives included in the

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of geography.	Students study how people live, work, and utilize natural resources	* Concept/Themes (Technology, Scarcity, Culture, Change, Interdependence, Uses of Geography, Human Activities) * Places and Regions * Environment and Society * Physical Systems Students will investigate historic uses of water in agriculture, as transportation, as power supply, etc.
	Students will draw maps and diagrams that serve as representations of places, physical features, and objects.	* Concept/Themes (Culture, Multiculturalism, Change, Interdependence, Uses of Geography, Human Activities) * Places and Regions * Environment and Society Students compare and contrast various ethnic experiences in New York State and the United States. Create table maps comparing past ethnic settlements and present day
	Students locate places within the local community, state, and nation; locate the earth's continents in relation to each other and to principal parallels and meridians.	* Concept/Themes (Community, Change, Uses of Geography) * Places and Regions Students may create flash cards defining the following: continents, oceans, hemispheres, poles, equator.
	Students identify and compare the physical, human, and cultural characteristics of different regions and people.	* Concept/Themes (Culture, Multiculturalism, Interdependence, Uses of Geography, Human Activities) * Places and Regions * Environment and Society Students will read about children living in other regions to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important
	Students investigate how people depend on and modify the physical environment	* Concept/Themes (Technology, Scarcity, Culture, Change, Interdependence, Uses of Geography, Human Activities) * Places and Regions * Environment and Society * Physical Systems Students will investigate historic uses of water in agriculture, as transportation, as power supply, etc.

SS32. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing	Students ask geographic questions about where places are located; why they are located where they are, what is important about their locations, and how their locations are related to the location of other	* Concept/Themes (Use of Geography, Multiculturalism) *Places and Regions Locate and discuss various climactic regions of the world.
	Students gather and organize geographic information from a variety of sources and display in a number of ways.	* Concept/Themes (Technology, Culture, Change, Uses of Geography) * Places and Regions Students may label map of world identifying hemispheres, prime meridians, equator and north, south, east, and west directions.
	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data	* Concept/Themes (Use of Geography, Historic Events, Interdependence, Change) *Places and Regions *Environment and Society Students will investigate the importance of the location of the New York

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.	* Concept/Themes (Scarcity, Use of Geography, Interdependence, Change) *Places and Regions *Environment and Society * Needs and Wants Students may compile a list of local needs and wants and show how they have changed over time (farms to towns to cities to suburbs.)
	Students explain how people's wants exceed their limited resources and that this condition defines scarcity.	* Concept/Themes (Scarcity, Use of Geography, Interdependence, Change) *Places and Regions *Environment and Society * Needs and Wants Students may explain the difference between renewable and non-renewable resources and make posters urging the
	Students know that scarcity requires individuals to make choices and that those choices involve costs.	* Concept/Themes (Scarcity, Use of Geography, Interdependence, Change) *Places and Regions *Environment and Society * Needs and Wants Students give an example of how people in a particular region have made a choice to compensate for a scarce
	Students study about how the availability and distribution of resources is important to a nation's economic growth	* Concept/Themes (Scarcity, Interdependence, Change, Technology, Nation-State) * Economic Systems *Places and Regions *Environment and Society * Needs and Wants Students state how a natural resource such as coal, petroleum, lumber, has influenced the growth of an area. Students state how availability or lack of availability of resources has an impact on economic growth.
	Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and what quantities? How shall goods and services be produced? For whom shall goods and services be produced?	* Concept/Themes (Scarcity, Interdependence, Change, Technology, Nation-State) *Economic Systems *Environment and Society * Needs and Wants Students will state how societies determine what goods and services to produce, how much and for whom. Students stat why the automobile or airplane was produced. Students state how it was produced and state for whom it was produced.

Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions with which all societies and nations must deal.	* Concept/Themes (Scarcity, Interdependence, Change, Technology, Nation-State) *Economic Systems *Environment and Society * Needs and Wants * Factors of Production Students state who the production of the automobile has influenced an urban economy.
Students investigate how people in the United States and throughout the world answer the three fundamental economic questions and solve basic economic problems.	* Concept/Themes (Scarcity, Interdependence, Change, Technology, Nation-State) *Economic Systems *Environment and Society * Needs and Wants Students will exhibit an understanding

SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life.	Students locate economic information, using card catalogs, computer databases, indices, and library guides	* Concept/Themes (Scarcity, Interdependence, Change, Technology, Nation-State) Students will locate information about a particular region or product in the library or on the computer using various resources.
	Students collect economic information from textbooks, standard references, newspapers, periodicals, and other primary and secondary sources. Students make hypotheses about economic issues and problems, testing, refining, and eliminating hypotheses and developing new ones when necessary	* Concept/Themes (Scarcity, Technology, Multiculturalism) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production Students will compare prices for same items in different locations (e.g.. New York vs. London)
	Students present economic information by developing charts, tables, diagrams and simple graphs	Concept/Themes (Scarcity, Interdependence, Nation-State, Technology) * Places and Regions * Environment and Society * Needs and Wants * Factors of Production * Economic Systems Students will chart the differences in price of similar goods in different locations (e.g.. New York vs. London)

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice Students explain the probable consequences of the absence of government and rules. Students describe the basic purposes of government and the importance of civic life Students understand that social and political systems are based upon people's beliefs	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Political Systems, Power/Authority) * Citizenship and Civic Life * Civic Values Discuss how citizenship plays an important role in the classroom (use classroom rules as a jumping off point.) Students may compose a list of classroom rules and discuss their importance. Discuss the importance of values and tolerance of others in different communities (local, regional, etc.) * Concept/Themes (Historic Events, Political Systems, Power/Authority, Nation-State, Government, Change, Technology, Culture, Interdependence, Sequence) Students will compare and contrast the colonial government with the U.S. government after the Revolutionary War.

	Students discuss how and why the world is divided into nations and what kinds of governments other nations have	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Political Systems) * Citizenship and Civic Life * Civic Values Students will compare and contrast their community with Mexico City
SS5.2 The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices and establish a system of shared and limited government.	Students explain how the Constitution of New York State and the United States and the Bill of Rights are the basis for democratic values in the United States	* Concept/Themes (Nation-State, Government, Interdependence, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students compare governmental structures of the United States and create a list of basic civic values and discuss how these can best be modeled on the personal and classroom level. Students will investigate the terms civics, justice, equality and respect for self, others and property. Students may design flash cards to define the following the terms: democracy, the three branches of government.
	Students understand the basic civil values that are the foundation of American constitutional democracy	
	Students know what the United States Constitution is and why it is important	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students will study why the U. S. Constitution was written
	Students understand that the United States Constitution and the Constitution of the State of New York are written plans for organizing the functions of government	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students will study why the U. S. and NY Constitutions were written
	Students understand the structure of New York State and local governments, including executive, legislative, and judicial branches.	* Concept/Themes (Nation-State, Government, Political Systems, Interdependence) * Citizenship and Civic Life * Civic Values Students will discover how local government functions (roads, garbage, traffic, etc.)
	Students identify their legislative and executive representatives at the local, state, and national governments.	* Concept/Themes (Nation-State, Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students will explore the qualifications of candidates for the office of Governor of New York

SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities.	Students understand that citizenship includes an awareness of the holidays, celebrations, and symbols of our nation.	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students understand the definitions of the following holidays: Lincoln's birthday, Washington's birthday, Independence Day, MLK Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day, Election Day, Flag Day, Memorial Day, Earth Day
	Students examine what it means to be a good citizen in the classroom, school, home, and community Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students state one way they can be good citizens at home, at school and in their community.
	Students examine the basic principles of the Declaration of Independence and the Constitutions of the United States and New York State	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students will discuss how an informed citizen can bring about change (local issues.)
	Students understand that effective, informed citizenship is a duty of each citizen, demonstrated by jury service, voting, and community service	* Concept/Themes (Government, Political Systems, Empathy) * Citizenship and Civic Life * Civic Values * Environment and Society Students will learn about volunteer work (e.g.. Conservation & recycling)
		* Concept/Themes (Government) * Citizenship and Civic Life * Civic Values *Decision Making Students hold elections for class president
	Students identify basic rights that students have and those that they will acquire as they age	* Concept/Themes (Nation-State, Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values Students will discuss how an informed citizen can bring about change (local
SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory skills	Students show a willingness to consider other points of view before drawing conclusions or making judgments	* Concept/Themes (Nation-State, Empathy, Rights) * Citizenship and Civic Life * Civic Values * Decision Making Students will work in groups to solve issues. Students will discuss their different points of views; demonstrate considering different points of view before passing judgment; and demonstrate the differences between fact or opinions when making a judgment.

Students participate in activities that focus on a classroom, school, or community issue or problem Students suggest alternative solutions or courses of action to hypothetical or historic problems Students evaluate the consequences for each alternative solution or course of action Students prioritize the solutions based on established criteria Students propose an action plan to address the issue of how to solve the problem	* Concept/Themes (Nation-State, Empathy, Culture, Interdependence, Technology, Problem Solving) * Citizenship and Civic Life * Civic Values * Environment and Society Students will learn about landfills and what they may do to help (e.g. recycling, conservation, advocacy)

Beginning Level Social Studies
Grade 4

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.	* Concept/Themes (Immigration, Multiculturalism, Culture, Technology, Identity, Change) * Citizenship and Civic Life Students read stories about the early days of American society and discuss the way of life of those times. Students prepare an original piece of work focusing on the contributions of a particular ethnic group (possibly their own). Produce a list of reasons why
	Students understand the basic ideals of American democracy as explained in the Declaration of Independence and the Constitution and other important documents	* Concept/Themes (Democracy, Nation-State, Human Rights and Dignity) * Citizenship and Civic Life Students define the following terms: equality, democracy, freedom, rights. Students list components of the Bill of Rights. Create a chart, web or list stating which rights, freedoms, responsibilities, are guaranteed under each of the three documents. Debate, role play, dramatize or create a venn diagram of the pros/cons of individual
	Students explain those values, practices, and traditions that unite all Americans	* Concepts/Themes (American Traditions, Dignity, Empathy, Identity, Nation-State, Rights, Responsibilities) * Civic Values * Citizenship and Civic Life Students will explain how an ideal of Martin Luther King transfers into their
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a	Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community	* Concept/Themes (Traditions, Diversity, Empathy, Multiculturalism, Culture, Identity, Nation-State, Change) * Place and Region Students investigate the roots of the local community. Create table maps comparing past ethnic settlements in
		* Concept/Themes (Traditions, Diversity, Values, Interdependence, Empathy, Multiculturalism, Identity, Rights, Responsibilities) * Civic Values * Place and Region Discuss the importance of values and tolerance of others in different
	Students recognize how traditions and practices were passed from one generation to the next	* Concept/Themes (Traditions, Diversity, Values, Interdependence, Empathy, Multiculturalism, Identity) List the various elements of culture (religion, customs, traditions, etc.) Students will use examples of native American culture (emphasis on Iroquois

	Students distinguish between near and distant past and interpret simple timelines	* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students may chose one native American tribes of New York and create a timeline of its important events.
SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.	* Concept/Themes (Iroquois Confederacy, Interdependence, Empathy, Multiculturalism) * Environment and Society * Places and Regions Students investigate and explain contributions of Native Americans in New York State. Name the Native American tribes in New York State, including those of the Iroquois
	Students classify information by type of activity; social, political, economic, technological, scientific, cultural, or religious	* Concept/Themes (Culture, Technology, Change, Interdependence) * Environment and Society * Places and Regions Students will examine waterways in New York State (Hudson and Mohawk Rivers, Great Lakes and Erie Canal.)

	Students identify individuals who have helped to strengthen democracy in the United States and throughout the world	* Concept/Themes (Nation-State, Culture, Identity, Empathy, Change, Technology) *Citizenship and Civic Life Students will explore the contributions of famous African Americans (Sojourner Truth, Elijah McCoy, Rosa Parks,
SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical developments.	Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.	* Concept/Themes (Nation-State, Culture, Identity, Empathy, Change, Interdependence) *Citizenship and Civic Life * Environment and Society Students will compare and interpret tow points of view of an important historic issue or key event (e.g. Columbus Day, Civil War, Native American Displacement). Students organize their information in some way to show both points of view. Summarize the conflicts inherent in the issues.
	Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and state.	* Concept/Themes (Identity, Culture, Empathy, Change) *Citizenship and Civic Life * Environment and Society * Places and Regions Students investigate the roots of the local community. Create table maps comparing past ethnic settlements in
	Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts	* Concept/Themes (Culture, Identity, Empathy) Students interpret historic events using primary sources (art, music, writing, artifacts). Identify and locate a place in their community that has historic significance (museum, cemeteries,

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum
SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses	* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State) *Citizenship and Civic Life * Environment and Society * Places and Regions Investigate and orally report on exploration and colonization of New York State.
		* Concept/Themes (Immigration, Multiculturalism, Culture, Technology, Identity, Change) * Citizenship and Civic Life Create a list of reasons why immigrants came to this country after reading stories about Ellis Island

		* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State) Create a graphic organizer on the history of the Iroquois Confederacy (including the 5 W's)
	Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop	* Concept/Themes (Identity, Culture, Multiculturalism, Empathy, Change, Nation-State) * Environment and Society * Places and Regions Investigate and orally report on exploration and colonization of New York State by studying journals, diaries, photographs, news articles and other records from the period for a variety of perspectives. Use examples of colonists
	Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.	* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State, Multiculturalism) * Environment and Society * Places and Regions Students investigate Native Americans in New York State (emphasis on Iroquois and Algonquin). Explore Native
SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students distinguish between past, present, and future time periods.	* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State, Multiculturalism, Technology, Interdependence) * Environment and Society * Places and Regions Students compare the Iroquois and Algonquin tribes during the colonial period with modern times.
	Students develop timelines that display important events and eras from world history.	* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students may chose one native American tribes of New York and create a timeline of its important events.
	Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points	* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students compare calendars from different countries and past centuries with the United States and a modern calendar
		* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students may chose one native American tribes of New York and create a timeline of its important events.
		* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students will construct picture timelines that show important events in their own lives, including descriptions of the events and explanations of why they

	Students compare important events and accomplishments from different time periods in world history.	* Concept/Themes (Historic Events, Change, Identity, Interdependence, Empathy, Technology, Multiculturalism) Students sequence important events and accomplishments in world history. Compare and contrast important events and accomplishments in world history from different time periods stating similarities and differences. Explain the importance of a historical event.

SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities	* Concept/Themes (Nation-State, Historic Events, Change, Identity, Interdependence, Empathy, Technology) * Citizenship and Civic Life Students read stories about the colonies of early days of American society and discuss the way of life of those times. Students investigate Native Americans in New York State .Emphasis on Iroquois and Algonquin.
	Students gather and present information about important developments from world history	* Concept/Themes (Historic Events, Sequencing, Nation-State, Change, Technology, Traditions, Multiculturalism) Students may chose one native American tribes of New York and create a timeline of its important events.
	Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices.	* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State) *Citizenship and Civic Life * Environment and Society * Places and Regions Investigate and orally report on exploration and colonization of New
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over time.	Students consider different interpretations of key events and developments in world history and understand the differences in these accounts	* Concept/Themes (Identity, Culture, Empathy, Change, Nation-State, Interdependence, Technology) *Citizenship and Civic Life * Environment and Society * Places and Regions Identify and define important events in world history. Compare and contrast two different accounts of an important event in world history from the same time period. Compare and contrast two different accounts of an important event in world history from different
	Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.	* Concept/Themes (Identity, Culture, Multiculturalism, Empathy, Change, Nation-State, Interdependence, Technology) *Citizenship and Civic Life * Environment and Society * Places and Regions Students will research common customs of various ethnic groups during colonial New York (e.g.. Marriage, funerals)
	Students view historic events through the eyes of those who were there, as shown in their art, writing, music, and artifacts.	* Concept/Themes (Culture, Identity, Empathy) Students interpret historic events using primary sources (art, music, writing, artifacts). Identify and locate a place in their community that has historic significance (museum, cemeteries,

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of	Students study how people live, work, and utilize natural resources	* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Students may create a salt map showing the path of the Erie Canal and its affect on growth of cities. Create a "T" graph comparing and contrasting rural and urban life. Construct a needs and resources tree.
	Students will draw maps and diagrams that serve as representations of places, physical features, and objects.	* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Students may create a salt map showing the path of the Erie Canal and its affect on growth of cities
	Students locate places within the local community, state, and nation; locate the earth's continents in relation to each other and to principal parallels and meridians.	* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Using a map of NY State, students may label the following features: rivers, mountain ranges, cities and lakes. Students may create a Regional Tree of the five regions of New York State including characteristics for each region.
	Students identify and compare the physical, human, and cultural characteristics of different regions and people.	* Concepts/Themes (Culture, Multiculturalism, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Students will read about children living in other regions to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important
	Students investigate how people depend on and modify the physical environment	* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Students will investigate historic uses of water (namely the Erie Canal) in agriculture, as transportation, as power
		* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Students may create a salt map showing the path of the Erie Canal and its affect on growth of cities

SS32. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing	Students ask geographic questions about where places are located; why they are located where they are, what is important about their locations, and how their locations are related to the location of other	* Concepts/Themes (Culture, Uses of Geography, Technology) * Environment and Society * Places and Regions * Human Systems Using knowledge of the four seasons in NY state diagram the Iroquois pattern
	Students gather and organize geographic information from a variety of sources and display in a number of ways.	* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems Practice using compass rose, longitude and latitude lines, map symbols and scales with NY State maps and world maps. Students may practice reading a
	Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data	* Concepts/Themes (Culture, Uses of Geography, Historical Events, Technology) * Environment and Society * Places and Regions Students will investigate the importance of the location of the New York during the American Revolutionary War

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.	* Concepts/Themes (Scarcity, Interdependence, Change, Culture, Uses of Geography, Technology, Empathy) * Environment and Society * Places and Regions * Human Systems * Needs and Wants Students may use a diagram of an Iroquois village to list the ways needs and wants were met.
		* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems * Economic Systems Students may explain in a report how the Erie Canal, Western Movement and railroads brought about economic
	Students explain how people's wants exceed their limited resources and that this condition defines scarcity	* Concepts/Themes (Scarcity, Interdependence, Change, Technology, Empathy) * Environment and Society * Places and Regions * Human Systems * Needs and Wants
	Students know that scarcity requires individuals to make choices and that those choices involve costs	Students may discuss the waste and
	Students study about how the availability and distribution of resources is important to a nation's economic growth	* Concepts/Themes (Scarcity, Interdependence, Change, Culture, Uses of Geography, Technology, Empathy) * Environment and Society * Places and Regions * Human Systems * Economic Systems Students will investigate the importance of the location of the New York
		* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems * Economic Systems Students may explain in a report how the Erie Canal, Western Movement and railroads brought about economic
		* Concepts/Themes (Culture, Uses of Geography) * Physical Settings * Places and Regions * Human Systems * Economic Systems Students may create a salt map showing the path of the Erie Canal and

	Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and what quantities? How shall goods and services be produced? For whom shall goods and services be produced?	* Concepts/Themes (Scarcity, Interdependence, Change, Technology) * Environment and Society * Human Systems * Needs and Wants Students may trace the growth and changes brought about by the computer age.
	Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions with which all societies and nations must deal.	* Concepts/Themes (Scarcity, Interdependence, Change, Technology) * Environment and Society * Human Systems * Needs and Wants * Economic Systems Students will increase their awareness of technological and economic changes
	Students investigate how people in the United States and throughout the world answer the three fundamental economic questions and solve basic economic problems.	* Concepts/Themes (Scarcity, Interdependence, Change, Technology, Multiculturalism) * Environment and Society * Human Systems * Needs and Wants * Economic Systems Discuss through current events and how trade agreements between the
SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life.	Students locate economic information, using card catalogs, computer databases, indices, and library guides	* Concepts/Themes (Scarcity, Interdependence, Technology, Multiculturalism) * Environment and Society * Human Systems * Needs and Wants * Economic Systems Students will increase their awareness of technological and economic changes on a global scale by focusing on a
		* Concepts/Themes (Scarcity, Change, Technology) * Environment and Society Students may compare how information gathering has changed since their grandparents and parents day.
	Students collect economic information from textbooks, standard references, newspapers, periodicals, and other primary and secondary sources.	* Concepts/Themes (Scarcity, Interdependence, Technology, Multiculturalism) * Environment and Society * Needs and Wants * Economic Systems Students will increase their awareness of technological and economic changes on a global scale by focusing on a consumer product (e.g.. Televisions)
	Students make hypotheses about economic issues and problems, testing, refining, and eliminating hypotheses and developing new ones when necessary	
	Students present economic information by developing charts, tables, diagrams and simple graphs	* Concepts/Themes (Scarcity, Interdependence, Technology, Multiculturalism) * Environment and Society * Human Systems * Needs and Wants * Economic Systems Students will chart the economic growth of countries via consumer purchases, possibly focusing on one

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	Students hold elections for class president
	Students explain the probable consequences of the absence of government and rules	Students may create classroom rules. Students may discuss safety rules for the cafeteria and playground. Students will share rules at home. Students will learn rules for riding on the bus
	Students describe the basic purposes of government and the importance of civic life	Students will learn about voting responsibilities.
	Students understand that social and political systems are based upon people's beliefs	Students study colonial America
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority,	Students know the meaning of key terms and concepts related to government including democracy, power, citizenship, nation-state, and justice	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Political Systems, Power/Authority) * Citizenship and Civic Life * Civic Values Discuss how citizenship plays an important role in the classroom (use classroom rules as a jumping off point.)
	Students explain the probable consequences of the absence of government and rules.	Students may compose a list of classroom rules and discuss their. importance. Discuss the importance of values and tolerance of others in different communities (local, regional, etc.). Students may construct a chart
	Students describe the basic purposes of government and the importance of civic life	
	Students understand that social and political systems are based upon people's beliefs	* Concept/Themes (Nation-State, Government, Culture, Interdependence, Political Systems, Power/Authority) * Citizenship and Civic Life * Civic Values Students may read biographies of people who have implemented change
		Students may research African Americans who contributed to the Revolution, including Crispus Attucks, Salem Poor, James Forton, Phillis Wheatley, James Armistead and Benjamin Banneker
	Students discuss how and why the world is divided into nations and what kinds of governments other nations have	* Concept/Themes (Nation-State, Government, Change, Interdependence, Political Systems, Power/Authority) * Citizenship and Civic Life Students will compare and contrast the development of the New York State Constitution back to the Iroquois Confederacy

SS5.2 The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices and establish a system of shared and limited government.	Students explain how the Constitution of New York State and the United States and the Bill of Rights are the basis for democratic values in the United States	* Concept/Themes (Nation-State, Government, Interdependence, Political Systems, Power/Authority) * Citizenship and Civic Life * Civic Values Students compare governmental structures of the United States and create a list of basic civic values and discuss how these can best be modeled on the personal and classroom level. Students will investigate the terms civics, justice, equality and respect for self, others and property. Students may design flash cards to define the following the terms: democracy, the three branches of government.
	Students understand the basic civil values that are the foundation of American constitutional democracy	
	Students know what the United States Constitution is and why it is important	* Concept/Themes (Nation-State, Government, Empathy, Interdependence) * Citizenship and Civic Life * Civic Values Students may compare the Constitution with the following documents to further their understanding of our democratic system: Mayflower Compact, Declaration of Independence, Articles of Confederation, and Bill of Rights.
	Students understand that the United States Constitution and the Constitution of the State of New York are written plans for organizing the functions of government	* Concept/Themes (Nation-State, Government, Empathy, Interdependence) * Citizenship and Civic Life * Civic Values Students may compare and contrast the rights guaranteed by the New York State Constitution as opposed to the rights guaranteed in the United States
	Students understand the structure of New York State and local governments, including executive, legislative, and judicial branches.	* Concept/Themes (Nation-State, Government, Empathy, Interdependence) * Citizenship and Civic Life * Civic Values Students may construct a graphic organizer explaining the role and responsibilities of the three branches of In a group activity students may compare and contrast the three branches of government in local, state and national government. Students may diagram in chart form the electoral process.
	Students identify their legislative and executive representatives at the local, state, and national governments.	* Concept/Themes (Nation-State, Government, Empathy, Interdependence) * Citizenship and Civic Life * Civic Values Students will explore the qualifications of candidates for the office of Mayor of New York

SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities.	Students understand that citizenship includes an awareness of the holidays, celebrations, and symbols of our nation.	* Concept/Themes (Government, Political Systems, Rights, Human Rights, Empathy) * Citizenship and Civic Life * Civic Values Students may create a timeline showing the establishment of national holidays .
	Students examine what it means to be a good citizen in the classroom, school, home, and community	* Concept/Themes (Government, Political Systems, Rights, Human Rights) * Citizenship and Civic Life * Civic Values
	Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school	Discuss how citizenship plays an important role in the classroom (use classroom rules as a jumping off point.). Students may compose a list of classroom rules and discuss their importance. Discuss the importance of values and tolerance of others in different communities (local, regional, etc.)
	Students examine the basic principles of the Declaration of Independence and the Constitutions of the United States and New York State	* Concept/Themes (Government, Political Systems, Rights, Human Rights, Empathy) * Citizenship and Civic Life * Civic Values Students will demonstrate an understanding of due process, majority rule and minority rights and will investigate how these words are applied in the New York State and U.S.
	Students understand that effective, informed citizenship is a duty of each citizen, demonstrated by jury service, voting, and community service	* Concept/Themes (Government, Political Systems, Rights, Human Rights, Empathy) * Citizenship and Civic Life * Civic Values Students may participate in community service activities such as collecting food for food pantries, spring and fall clean-ups for the sick and elderly, organizing and running recycling program in school.
		* Concept/Themes (Government) * Citizenship and Civic Life * Civic Values *Decision Making Students hold elections for class president
	Students identify basic rights that students have and those that they will acquire as they age	* Concept/Themes (Government, Political Systems, Rights, Human Rights, Empathy) * Citizenship and Civic Life * Civic Values Students will discuss how an informed citizen can bring about change (local Students will be able to explain the voting process.

SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory skills	Students show a willingness to consider other points of view before drawing conclusions or making judgments	* Concept/Themes (Nation-State, Empathy, Rights) * Citizenship and Civic Life * Civic Values Students will work in groups to solve issues. State the differences between fact and an opinion. Identify whether a stated argument in support of an issue is a fact or opinion. State an opinion from each of the two sides of an argument about a particular issue or problem that arises in their daily life or
	Students participate in activities that focus on a classroom, school, or community issue or problem Students suggest alternative solutions or courses of action to hypothetical or historic problems Students evaluate the consequences for each alternative solution or course of action Students prioritize the solutions based on established criteria Students propose an action plan to address the issue of how to solve the problem	* Concept/Themes (Nation-State, Empathy, Culture, Interdependence, Technology) * Citizenship and Civic Life * Civic Values * Environment and Society Students choose a community service activity (such as collecting food for food pantries, spring and fall clean-ups for the sick and elderly, organizing and running recycling program in school) based on their local community needs

Grade 4: Local History and Local Government
Cotent Understanding

The grade 4 social studies program builds on the students' understanding of families, schools, and communities and highlights the political institutions and historic development of their local communities with connections to New York State and the United States. The in-depth study of local government will emphasize the structure and function of the different branches and the roles of civic leaders. Students continue to learn about the rights, respons bilities, and duties of citizenship. By participating in school activities that teach democratic values, students develop a sense of political efficacy and a better understanding of the roles of supporters and leaders. Students expand their civic concepts of power, equality, justice, and citizenship as they learn about local government.

The historic study of local communities focuses on the social/cultural, political, and economic factors that helped to shape these communities. Students study about the significant people, places, events, and issues that influenced life in their local communities. Students can investigate local events and issues and connect them to national events and issues. The grade 4 program should consider the following themes and events at the local level: Native American Indians of New York State, the European encounter, the colonial and Revolutionary War period, the new nation, and the period of industrial growth and development in New York State. This chronological framework will help students to organize information about local history and connect it to United States history.

Connect local, New York State, and United States history, focusing on the following themes:

Native American Indians of New York State

European encounter: Three worlds (Europe, Africa, and the Americas) meet in the Americas

Colonial and Revolutionary periods

The new nation

Industrial growth and expansion

Government-lc narratives to transmit values, ideas, beliefs, and traditions.

Native American Indians of New York State

Native American Indians were the first inhabitants of our local region and State.

The Iroquois (Haudenosaunee—People of the Longhouse) and the Algonquian were the early inhabitants of our State.

Meeting basic needs—food, clothing, and shelter.
Uses of the environment and how Native American Indian settlements were influenced by environmental and geographic factors.

Important accomplishments and contributions of Native American Indians who lived in our community and State

Three worlds (Europe, the Americas, Africa) meet in the Americas

Major explorers of New York State Impacts of exploration—social/cultural, economic, political, and geographic.

The slave trade and slavery in the colonies.

Groups of people who migrated to our local region and into our State.

Ways that people depended on and modified their physical environments

Colonial and Revolutionary periods

Dutch, English, and French influences in New York State.

Lifestyles in the colonies—comparisons during different time periods.

Different types of daily activities including social/cultural, political, economic, scientific/technological, or religious.

Ways that colonists depended on and modified their physical environments.
Cultural similarities and differences, including folklore, ideas, and other cultural contributions that helped shape our community, local region, and State.

Colonial governments.
Colonial societies were organized to answer three fundamental economic questions: What goods and services do we produce? How do we produce them? For whom do we produce them?

Ways of making a living in our local region and State.

Causes for revolution: social, political, economic.

Important accomplishments of individuals and groups living in our community and region

The Revolutionary War in New York State

Location of New York State.

The significance of New York State's location and its relationship to the locations of other people and places.

Geographic features that influenced the War.

Native American Indians in New York State influenced the War.

The war strategy: Saratoga and other local battles.

Loyalists and patriots in New York State.

Leaders of the Revolution.

Effects of t an understanding about its display and use.

The new nation

Foundations for a new government and the ideals of American democracy as expressed in the Mayflower Compact, the Declaration of Independence, and the Constitutions of the State of New York and the United States of America.

The importance of the Bill of Rights.

Individuals and groups who helped to strengthen democracy in the United States.

The roots of American culture, how it developed from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.

Those values, practices, and traditions that unite all Americans

Industrial growth and expansion

Transportation, inventions, communication, and technology (e.g., 1800s—Erie Canal, railroads, steamboats, turnpikes, telegraph, cable; 1900s—automobiles, subways, air travel, seaways, telephones, radios and televisions, computer).

Immigration and migration (e.g., Ellis Island; the mass starvation in Ireland, 1845-50; forced relocation of Native American Indians in New York State).

The important contr butions of immigrants to New York State.

Geographic influences of industrialization and expansion (e.g., natural resources, location); the interactions between economic and geographic factors

Urbanization: economic, political, and social impacts

Rural to urban to suburban migration Economic interdependence (e.g., resource use; from farm to market).

Ways of learning and public education in our community and State.

The labor movement and child labor

Government

Basic democratic values (Taken from: National Standards for Civics and Government).

The fundamental values of American democracy include an understanding of the following concepts: individual rights to life, liberty, property, and the pursuit of happiness; the public or common good; justice; equality of opportunity; diversity; truth; and patriotism.

The fundamental values and principles of American democracy are expressed in the Declaration of Independence, Preamble to the United States Constitution, Bill of Rights, Pledge of Allegiance, speeches songs and stories

Purposes of government

The basic purposes of government in the United States are to protect the rights of individuals and to promote the common good. (Taken from: National Standards for Civics and Government)

Local and State governments

An introduction to the probable consequences of the absence of government.

The structure and function of the branches of government of New York State and local governments, including executive, legislative, and judicial branches The meaning of key terms and concepts related to government, including democracy, power, and citizenship .

The United States Constitution and the Constitution of the State of New York and their respective Bills of Rights were developed as written plans for organizing the functions of government and safeguarding individual liberties.

Representatives in the legislative, executive, and judicial branches at the local, State, and national levels of government and how they are elected or appointed to office.

People elect and/or appoint leaders who make, enforce, and interpret laws. Citizenship and the rules and responsibilities of citizenship in the classroom, school, home, and local community.

Citizenship includes an awareness of the holidays, celebrations, and symbols of our nation, including the flag of the United States of America, its proper display, and use.

Effective, informed citizenship involves duties such as voting, jury service, and other service to the local community.

Citizens can participate in political decision making and problem solving at the local, State, and national levels.

Intermediate Level Social Studies
Grade 5

Standard 1: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in the history of the United States and New York.

Key Idea	Performance Indicators	Core Curriculum
SS.1. The study of New York State and United States history requires an analysis of the development of American culture, its diversity and multicultural context, and the ways people are unified by many values, practices, and traditions.	Students explore the meaning of American culture by identifying the key ideas, beliefs, and patterns of behavior and traditions that help define it and unite all Americans.	* Concept/Themes (Culture, Melting Pot, Democracy, Freedoms, Colonization, Immigration, Forced Migration/Slavery, Empathy, Technology) * Places and Regions Students study the Buffalo Pan-American exposition of 1901
	Students interpret the ideas, values and beliefs contained in the Declaration of Independence and the New York State Constitution and United States Constitution, Bill of Rights, and other important historical documents.	* Concept/Themes (Mayflower Compact, Fundamental Orders of Connecticut, Declaration of Independence, Bill of Rights, US Constitution, Emancipation Proclamation) Students identify ideas expressed in early government documents. Students describe the progression of democratic ideas found in government documents. Students explain how the US Constitution incorporated these
SS1.2 Important ideas, social and cultural values, beliefs, and traditions from New York State and United States history illustrate the connections and interactions of people and events across time and from a variety of perspectives.	Students describe the reasons for periodizing history in different ways.	* Concept/Themes (Age of Exploration, Colonial Period, American Revolution, Western Expansion, Industrial Revolution, Civil Strife) * Places and Regions Students investigate and compare pre- and post- colonial Canada, the US, and Mexico
	Students investigate key turning points in New York State and United States history and explain why these events or developments are significant.	* Concept/Themes (Culture, Melting Pot, Democracy, Freedoms, Colonization, Immigration, Forced Migration/Slavery, Empathy, Technology) * Places and Regions Students study the Buffalo Pan-American exposition of 1901
	Students understand the relationship between the relative importance of United States domestic and foreign policies over time.	* Concept/Themes (Culture, Melting Pot, Democracy, Freedoms, Colonization, Immigration, Forced Migration/Slavery, Empathy, Technology) * Places and Regions Students study the Buffalo Pan-American exposition of 1901

	Students analyze the role played by the United States in international politics, past and present.	* Concept/Themes (Culture, Melting Pot, Democracy, Freedoms, Colonization, Cause/Effect of US Involvement, US Involvement in Foreign Wars, Empathy, Technology) * Places and Regions Students study the Buffalo Pan-American exposition of 1901 and compare the current relationships of Canada, the US and Mexico
SS1.3.Study about the major social, political, economic, cultural, and religious developments in New York State and United States history involves learning about the important roles and contributions of individuals and groups.	Students complete well-documented and historically accurate case studies about individuals and groups who represent different ethnic, national and religious groups, including Native American Indians, in New York State and the United States at different	* Concept/Themes (Pocahontas/Settlers, Puritans/Dissenters, Plantation Owners/Slaves, Patriots/Tories, Native Americans/Europeans Settlers, Culture, Democracy, Empathy) Students examine both sides of an issue to understand different points of view or perspective.
	Students gather and organize information about the important achievements and contributions of individuals and groups living in New York State and the United States.	* Concept/Themes (Identity, Culture, Multiculturalism, Contributions) Students compare and contrast various ethnic experiences in New York State and the United States, focus on various Hispanic populations (Mexicans, Puerto
	Students describe how ordinary people and famous historic figures in the local community, State, and the United States have advanced the fundamental democratic values, beliefs, and traditions expressed in the Declaration of Independence, the New York State and the United States Constitutions, the Bill of Rights, and other important	* Concept/Themes (Thomas Paine - *Common Sense*; Thomas Jefferson - *Declaration of Independence*; James Madison - *Constitution*; Francis Scott Key - *The Star Spangled Banner*; Abraham Lincoln - *Emancipation Proclamation*) Students link fundamental values, beliefs, and traditions to the person responsible for its inception and development.
	Students classify major developments into categories such as social, political, economic, geographic, technological, scientific, cultural, or religious.	* Concept/Themes (Nation-State, Identity, Culture, Interdependence, Scarcity, Empathy, Technology, Change) * Citizenship and Civic Life * Civic Values * Environment and Society Students conduct a historical case study about an important environmental concern affecting their city's or neighborhood's water supply, housing accommodations, or transportation system, and examine competing views on the issues ideas evident in the source and identify the purpose or point of view from which the source was created; discuss how interpretations or perspectives develop and change as

SS1.4. The skills of historical analysis include the ability to: explain the significance of historical evidence; weigh the importance, reliability, and validity of evidence; understand the concept of multiple causation; understand the importance of changing and competing interpretations of different historical	Students consider the sources of historical documents, narratives, or artifacts and evaluate their reliability.	* Concept/Themes (Mayflower Compact, Fundamental Orders of Connecticut, *Common Sense, Uncle Tom's Cabin*) Students recognize authors' purpose and point of view in historical documents or narratives.

Students understand how different experiences, beliefs, values, traditions, and motives cause individuals and groups to interpret historic events and issues from different perspectives.	* Concept/Themes (Exploration, Early Colonization, American Revolution, Slavery) *Places and Regions *Human Systems Students investigate the roots of the local community. Create table maps comparing past ethnic settlements in
Students describe historic events through the eyes and experiences of those who where there.	* Concept/Themes (Culture, Melting Pot, Democracy, Freedoms, Colonization, Immigration, Forced Migration/Slavery, Empathy, Technology) * Places and Regions Students study the Buffalo Pan-

Standard 2: Students will use a variety of intellectual skills to demonstrate their understanding of major ideas, eras, themes, developments, and turning points in world history and examine the broad sweep of history from a variety of perspectives.

Key Idea	Performance Indicators	Core Curriculum
SS2.1 The study of world history requires an understanding of world cultures and civilizations, including an analysis of important ideas, social and cultural values, beliefs, and traditions. This study also examines the human condition and the connections and interactions of people across time and space and the ways different people view the same event or issue from a variety of perspectives.	Students know the social and economic characteristics, such as customs, traditions, child-rearing practices, ways of making a living, education, and socialization practices, gender roles, foods, and religious and spiritual beliefs that distinguish different cultures and civilizations.	* Concept/Themes (Sequence, Civilization, Culture, Multiculturalism, Colonization, Empire Building, Anasazi, Aztec, Incan, Mayan, Mound Builders) * Places and Regions * Environment and Society * Human Systems Expand on the impact of colonization to the Western Hemisphere on indigenous peoples (emphasis on Spanish colonization).
		* Concept/Themes (Sequence, Civilization, Colonization, Exploration, Empire Building, Anasazi, Aztec, Incan, Mayan, Mound Builders, Iroquois) * Places and Regions * Environment and Society * Human Systems Have students trace and create a timeline of the history of various regions in Canada and Latin America.

	* Concept/Themes (Identity, Culture, Change, Sequence, Civilization, Empire Building) * Places and Regions * Environment and Society * Human Systems Students create personal and family timelines to distinguish between near and distant past and identify family origins; interpret simple timelines by recognizing correct chronological order of major events such as Native American settlement of North America, Columbus's voyage in 1492, the American Revolution, writing the Constitution, the presidency of Abraham Lincoln, World War I, and the
Students know some important historical events and developments of past civilizations.	* Concept/Themes (Sequence, Civilization, Culture, Multiculturalism, Colonization) * Places and Regions * Environment and Society * Human Systems Expand Students interpret and analyze documents and artifacts related to significant developments and events in
	* Concept/Themes (Sequence, Civilization, Culture, Multiculturalism, Colonization, Empire Building, Anasazi, Aztec, Incan, Mayan, Mound Builders) * Places and Regions * Environment and Society * Human Systems Expand Students may study the first North and South Americans (such the Mayan)
Students interpret and analyze documents and artifacts related to significant developments and events in world history.	* Concepts/Themes (Written Language, Written Law, Archaeology, Primary Sources, Technology, Change) Students may use newspaper want ads to study the effects of technology on our society.
	* Concepts/Themes (Written Language, Written Law, Archaeology, Primary Sources, Technology, Change) Students may create a list of important inventions of the last century

SS2.2 Establishing timeframes, exploring different periodizations, examining themes across time and within cultures, and focusing on important turning points in world history help organize the study of world cultures and civilizations.	Students develop timelines by placing important events and developments in world history in their correct chronological order.	* Concepts/Themes (Decade, Century, Millennium, Historical Analysis, Cause and Effect, Pros/Cons, Fact and Opinion) *Places and Regions *Human Systems * Environment and Society Students know how to organize key turning points and events in the histories of Canada, Latin America, and the United States into different historical time periods. (e.g. key turning points might include: 18th century exploration and encounter; 19th century westward migration and expansion, 20th century population movement from rural to suburban areas.) Students create personal and family timelines to distinguish between near and distant past and identify family origins; interpret simple timelines by recognizing correct chronological order of major events such as Native American settlement of North America, Columbus's voyage in 1492, the American Revolution, writing the Constitution, the presidency of Abraham Lincoln, World War I, and the beginning of space exploration.
	Students measure time periods by years, decades, centuries, and millennia.	
SS2.3 Study of the major social, political, cultural, and religious developments in world history involves learning about the important roles and contributions of individuals and groups.	Students investigate the roles and contributions of individuals and groups in relation to key social, political, cultural, and religious practices throughout world history.	* Concepts/Themes (Identity, Empathy, Fact and Opinion) *Places and Regions *Civic Values * Environment and Society Students study Pablo Picasso and how his art work reflected the art, political, religious and social of his time
	Students interpret and analyze documents and artifacts related to significant developments and events in world history.	* Concepts/Themes (Written Language, Written Law, Primary Sources, Historical Analysis, Cause and Effect, Pros/Cons, US Constitution, Multiculturalism) *Places and Regions *Citizenship and Civic Life * Environment and Society Students compare the American and Mexican constitutions.
	Students classify historic information according to the type of activity or practice: social/cultural, political, economic, geographic, scientific, technological, and historic.	* Concept/Themes (Identity, Culture, Multiculturalism, Change, Sequence, Civilization, Empire Building, Historical Analysis) * Places and Regions * Environment and Society * Human Systems Students investigate the Spanish-American War, studying the American,
SS2.4 The skills of historical analysis include the ability to investigate differing and competing interpretations of the theories of history, hypothesize about why interpretations change over time, explain the importance of historical evidence, and understand the concepts of change and continuity over	Students explain the literal meaning of a historical passage or primary source document, identifying who was involved, what happened, where it happened, what events led up to these developments, and what consequences or outcomes followed.	* Concepts/Themes (Written Language, Written Law, Primary Sources, Historical Analysis, Cause and Effect, Pros/Cons, US Constitution, Multiculturalism) *Places and Regions *Citizenship and Civic Life * Environment and Society Students compare the American and Mexican constitutions.

Students analyze different interpretations of important events and themes in world history and explain the various frames of reference expressed by different historians.	* Concept/Themes (Identity, Culture, Multiculturalism, Change, Sequence, Civilization, Empire Building, Historical Analysis) * Places and Regions * Environment and Society * Human Systems Students investigate the Spanish-American War, studying the American,

	Students view history through the eyes of those who witnessed key events and developments in world history by analyzing their literature, diary accounts, letters, artifacts, art, music, architectural, drawings, and other	* Concepts/Themes (Identity, Empathy, Fact and Opinion) *Places and Regions *Civic Values * Environment and Society Students study Pablo Picasso and how his art work reflected the art, political,
	Student investigate important events and developments in world history by posing analytical questions, selecting relevant data, distinguishing fact from opinion, hypothesizing cause-and-effect relationships, testing these hypotheses, and forming conclusions.	* Concept/Themes (Identity, Culture, Multiculturalism, Change, Sequence, Civilization, Empire Building, Historical Analysis) * Places and Regions * Environment and Society * Human Systems Students investigate the Spanish-American War, studying the American,

Standard 3: Students will use a variety of intellectual skills to demonstrate their understanding of the geography of the interdependent world in which we live—local, national, and global—including the distribution of people, places, and environments over the Earth's surface.

Key Idea	Performance Indicators	Core Curriculum
SS3.1 Geography can be divided into six essential elements which can be used to analyze important historic, geographic, economic, and environmental questions and issues. These six elements include: the world in spatial terms, places and regions, physical settings (including natural resources), human systems, environment and society, and the use of	Students map information about people, places, and environments.	* Concepts/Themes (World in Spatial Terms, Uses of Geography) * Places and Regions * Environment and Society * Physical System Students use maps and other geographic representations, tools, and technologies such as Arial and other photographs, satellite-produced images and computer models to gather, process, and report information about the United States, Canada, and Latin America today. Construct a "T" graph that explores the changes from an agricultural to an industrial society. Compose a list of technological changes over time.
	Students understand the characteristics, functions, and applications of maps, global, aerial and other photographs, satellite-produced images, and models.	* Concepts/Themes (World in Spatial Terms, Uses of Geography) * Places and Regions * Environment and Society * Physical System Using political and physical maps students will explain the importance of Students may interpret various types of maps (distribution, historical, political and physical.)
	Students investigate why people and places are located where they are located and what patterns can be perceived in these locations.	* Concepts/Themes (World in Spatial Terms, Uses of Geography) * Places and Regions * Environment and Society * Physical System * Human Systems Using climactic maps, compare and contrast climates and population densities in the US and rest of the

	Students describe the relationship between people and environments and the connections between people and places	* Concepts/Themes (Identity, People and Places, Empathy, Basic Needs, Interdependence) * Places and Regions * Environment and Society * Physical System Students will read about children living in other regions to learn about their customs, beliefs, and traditions: natural resource use; food; shelter; socialization and schooling; and other important
		* Concepts/Themes (World in Spatial Terms, Uses of Geography) * Places and Regions * Environment and Society * Physical System Using climactic maps, compare and contrast climates and population densities in the US and rest of the Western Hemisphere.
SS3.2. Geography requires the development and application of the skills of asking and answering geographic questions; analyzing theories of geography; and acquiring, organizing, and analyzing geographic information.	Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.	* Concepts/Themes (World in Spatial Terms, Uses of Geography, Technology) * Places and Regions * Environment and Society * Physical System Students create maps of South America using the internet as one primary sources
	Students interpret geographic information by synthesizing data and developing conclusions and generalizations about geographic issues and problems.	* Concepts/Themes (World in Spatial Terms, Fundamental Themes of Geography, Technology) * Places and Regions * Environment and Society * Physical System * Human Systems Practice using compass rose, longitude and latitude lines, map symbols and scales with North and South American
	Students formulate geographic questions and define geographic issues and problems.	* Concepts/Themes (World in Spatial Terms, Fundamental Themes of Geography, Technology, Colonization, Empire Building, Historical Analysis) * Places and Regions * Environment and Society * Physical System * Human Systems Students investigate the different colonization patterns of North and South America, focusing on accessibility
	Students use a number of research skills (e.g. computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.	* Concepts/Themes (World in Spatial Terms, Fundamental Themes of Geography, Technology, Historical Analysis) * Places and Regions * Environment and Society * Physical System * Human Systems Students study the historic relationship

Standard 4: Students will use a variety of intellectual skills to demonstrate their understanding of how the United States and other societies develop economic systems and associated institutions to allocate scarce resources, how major decision-making units function in the United States and other national economies, and how an economy solves the scarcity problem through market and nonmarket mechanisms.

Key Idea	Performance Indicators	Core Curriculum
SS4.1 The study of economics requires an understanding of major economic concepts and systems, the principles of economic decision making, and the interdependence of economies and economic systems throughout the world.	Students explain how societies and nations attempt to satisfy their basic needs and wants by utilizing scarce capital, natural, and human resources.	* Concept/Themes (Scarcity, Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Factors of Production * Needs and Wants Students may diagram how communities in the US , Canada and Latin America have grown economically over the last century.
		* Concept/Themes (Representation, Historical Analysis) * Citizenship and Civil Life * Economic System Using population graphs, students may be able to draw conclusions about how population growth influences economics.
	Students define basic economic concepts such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, economic growth, and systems.	* Concept/Themes (Scarcity, Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students understand that industrial growth and development and urbanization have had important impacts on Canada, Latin America, and the United States.
	Students understand how scarcity requires people and nations to make choices which involve costs and future considerations.	* Concept/Themes (Scarcity) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students may report how NAFTA developed an interdependence between countries of the Western Hemisphere.
		* Concept/Themes (Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Human Systems Students know concepts such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, economic growth and systems can be used to study the economies and economic systems of the United States, Canada and Latin

Students understand how people in the United States and throughout the world are both producers and consumers of goods and service.	* Concept/Themes (Representation) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students demonstrate an understanding that production, distribution, exchange, and consumption of goods and services are economic decisions which the nations of North and South America must make.
	* Concept/Themes (Representation) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students may compare and contrast how local industries made an impact and may impact the world (steel, medical advances.)
Students investigate how people in the United States and throughout the world answer the three fundamental economic questions and solve basic economic problems.	* Concept/Themes (Scarcity) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students may report how NAFTA developed an interdependence between countries of the Western Hemisphere.
	Students understand that industrial growth and development and urbanization have had important impacts on Canada, Latin America, and the United States
Students explain how nations throughout the world have joined with one another to promote economic development and growth	* Concept/Themes (Scarcity) * Citizenship and Civil Life * Economic System * Human Systems * Factors of Production * Needs and Wants Students may report how NAFTA developed an interdependence between countries of the Western Hemisphere.
	* Concept/Themes (Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Human Systems Students know concepts such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, economic growth and systems can be used to study the economies and economic systems of the United States, Canada and Latin

		* Concept/Themes (Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Human Systems Students understand that as the economic systems of the global community have become more interdependent. Decisions made in one nation or region in the Western Hemisphere have implications for all nations or regions.
		* Concept/Themes (Representation, Historical Analysis) * Citizenship and Civil Life * Economic System * Human Systems Students demonstrate an understanding that production, distribution, exchange, and consumption of goods and services are economic decisions which the nations of North and South America must make.
SS4.2 Economics requires the development and application of the skills needed to make informed and well-reasoned economic decisions in daily and national life.	Students identify and collect economic information from standard reference works, newspapers, periodicals, computer databases, textbooks, and other primary and secondary sources.	* Concept/Themes (Representation) * Citizenship and Civil Life * Economic System * Human Systems Students may compare and contrast how local industries made an impact and may impact the world (steel, medical advances.)
	Students organize and classify economic information by distinguishing relevant from irrelevant information, placing ideas in chronological order, and selecting appropriate labels for data.	* Concept/Themes (Representation, Technology) * Citizenship and Civil Life * Economic System * Human Systems Students may compare and contrast how the standards of living in the Western Hemisphere have been affected by changing science and technology.
	Students evaluate economic data by differentiating fact from opinion and identifying frames of reference.	* Concept/Themes (Representation) * Citizenship and Civil Life * Economic System * Human Systems Students will compare economic allocations at a national level
		* Concept/Themes (Representation, Identity) * Citizenship and Civil Life * Economic System * Human Systems Students will explain allocation of economic resources in their own lives

	Students develop conclusions about economic issues and problems by creating broad statements which summarize findings and solutions.	* Concept/Themes (Representation, Technology) * Citizenship and Civil Life * Economic System * Human Systems Students may compare and contrast how the standards of living in the Western Hemisphere have been affected by changing science and
	Students present economic information by using media and other appropriate visuals such as tables, charts, and graphs to communicate ideas and conclusions.	* Concept/Themes (Representation, Technology) * Citizenship and Civil Life * Economic System * Human Systems Students report on the similarities and differences of the standards of living in

Standard 5: Students will use a variety of intellectual skills to demonstrate their understanding of the necessity for establishing governments; the governmental system of the United States and other nations; the United States Constitution; the basic civic values of American constitutional democracy; and the roles, rights, and responsibilities of citizenship, including avenues of participation.

Key Idea	Performance Indicators	Core Curriculum
SS5.1 The study of civics, citizenship, and government involves learning about political systems; the purposes of government and civic life; and the differing assumptions held by people across time and place regarding power, authority, governance, and law	Students analyze how the values of a nation affect the guarantee of human rights and make provisions for human needs	* Concept/Themes (Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students will compare and contrast the independence movements in Latin
		* Concept/Themes (Government, Representation, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems Students will use concepts such as civic life, politics and government to answer questions about what governments can and should do, how people should live their lives together, and how citizens can support the proper use of authority or combat the abuse of political power
	Students consider the nature and evolution of constitutional democracies.	* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students will compare and contrast the evolution of the United States Constitution to those of Latin American countries. Students may write biographical sketches of Latin American liberators (Simon Bolivar, etc.)

	Students explore the rights of citizens in other parts of the hemisphere and determine how they are similar to and different from the rights of American citizens.	* Concept/Themes (Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems Students may compare the right of citizens in the United States to the rights of citizens in an Latin American
	Students analyze the sources of a nation's values as embodied in its constitution, statutes, and important court cases	* Concept/Themes (Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems Students may review the three
		* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Compare and contrast the constitutions of Canada, the US and various Latin
SS5.2 The state and federal governments established by the Constitutions of the United States and the State of New York embody basic civic values (such as justice, honesty, self-discipline, due process, equality, majority rule with respect for minority rights, and respect for self, others, and property), principles, and practices and establish a system of shared and limited government.	Students understand how civic values reflected in the United States and New York State Constitutions have been implemented through laws and practices	* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students will apply the terms justice, honesty, self discipline, due process, equality, majority rule etc, and apply the terms to a constitution of a Latin Students may participate in composing a list of classroom rules.
		* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Compare and contrast human rights in the Western Hemisphere (newspapers
	Students understand that the New York State Constitution, along with a number of other documents, served as a model for the development of the United States Constitution	* Concept/Themes (Constitution, Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights)

		Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students may compare the Constitution with the following documents to further their understanding of our democratic system: New York Constitution, Mayflower Compact, Declaration of Independence, Articles of Confederation, and Bill of Rights.
	Students define federalism and describe the powers granted the national and state governments by the United States Constitution.	Concept/Themes (Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems In a group activity students may compare and contrast the three branches of government in local, state
	Students value the principles, ideals, and the core values of the American democratic system based upon the premises of human dignity, liberty, justice, and equality.	* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students will apply the terms justice, honesty, self discipline, due process, equality, majority rule etc, and apply the terms to a constitution of a Latin
	Students understand how the United States and the New York State Constitutions support majority rule but also protect the rights of the minority	* Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Students will demonstrate an understanding of due process, majority rule and minority rights and will investigate how these words are applied in the New York State and U.S. * Concept/Themes (Written Language, Written Law, Primary Sources, Representation, Historical Analysis, Democracy, Freedoms, Human Rights, Rights) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions Compare and contrast human rights in the Western Hemisphere (newspapers
SS5.3 Central to civics and citizenship is an understanding of the roles of the citizen within American constitutional democracy and the scope of a citizen's rights and responsibilities.	Students explain what citizenship means in a democratic society, how citizenship is defined in the Constitution and other laws of the land, and how the definition of citizenship has changed in the United States and New York State over time.	* Concept/Themes (Democracy, Freedoms, Human Rights, Rights, Empathy) * Citizenship and Civil Life * Civic Values * Human Systems * Places and Regions

	Students understand that the American legal and political systems guarantee and protect the rights of citizens and assume that citizens will hold and exercise certain civic values and fulfill certain civic responsibilities. Students discuss the role of an informed citizen in today's changing world.	Discuss how citizenship plays an important role in the classroom (use classroom rules as a jumping off point.). Students may compose a list of classroom rules and discuss their importance. Discuss the importance of values and tolerance of others in different communities (local, regional, etc.)
	Students explain how Americans are citizens of their states and the United States.	* Concept/Themes (Identity, Human Rights, Rights, Empathy) * Citizenship and Civil Life * Civic Values Students may participate in community service activities such as collecting food for food pantries, spring and fall clean-ups for the sick and elderly, organizing and running recycling program in school. * Concept/Themes (Identity, Human Rights, Rights, Empathy) * Citizenship and Civil Life * Civic Values Students hold elections for class president
SS5.4The study of civics and citizenship requires the ability to probe ideas and assumptions, ask and answer analytical questions, take a skeptical attitude toward questionable arguments, evaluate evidence, formulate rational conclusions, and develop and refine participatory	Students respect the rights of others in discussions and classroom debates regardless of whether or not one agrees with their viewpoint.	* Concept/Themes (Government, Empathy, Rights, Debate Format) * Citizenship and Civic Life * Civic Values Students will work in groups to solve issues
		Students study controversial historical figures (Che Guevara, etc)
	Students explain the role civility plays in promoting effective citizenship in preserving democracy	* Concept/Themes (Government, Empathy, Rights, Debate Format) * Citizenship and Civic Life * Civic Values
	Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems	Students take a community issue (such as unemployment), choose opposing arguments and hold a formal class room debate on the topic.

Grade 5: The United States, Canada, and Latin America
Cotent Understanding

The grade 5 social studies program stresses geographic, economic, and social/cultural understandings related to the United States, Canada, and nations in Latin America today. These perspectives build on and reinforce historic and political content about the United States included in the grade 4 social studies program. When appropriate, the grade 5 program should use contemporary examples of case studies to help students understand the content understandings that follow. The content understandings were developed to assist in selecting specific factual information and case studies. For additional guidance in selecting content, case studies, activities, evaluation questions, and resources, consult *Social Studies Program: Grade 5* (New York State Education Department, 1987).

History of the United States, Canada, and Latin America

- Different ethnic, national, and religious groups, including Native American Indians, have contr buted to the diversity of these nations and regions by sharing their customs, traditions, beliefs, ideas, and languages.
- Different people living in the Western Hemisphere may view the same event or issue from different perspe
- The migration of groups of people in the United States, Canada, and Latin America has led to cultural diffu because people carry their ideas and ways of life with them when they move from place to
- Connections and exchanges exist between and among the peoples of Europe, sub-Saharan Africa, Canac America, the Caribbean, and the United States. These connections and exchanges include social/cultural, migration/immigration, and scientific/technological.
- Key turning points and events in the histories of Canada, Latin America, and the United States can be org into different historical time periods. For example, key turning points might include: 18th-century exploration and encounter; 19th-century westward migration and expansion, 20th-century population movement from rural to suburban areas.
- Important historic figures and groups have made significant contributions to the development of Canada, Latin America, and the United States.
- Industrial growth and development and urbanization have had important impacts on Canada, Latin Americ and the United States.

Geography of the United States, Canada, and Latin America

- Maps and other geographic representations, tools, and technologies such as aerial and other photographs satellite-produced images, and computer models can be used to gather, process, and report information about the United States, Canada, and Latin America today.
- Political boundaries change over time and place.
- Different geological processes shaped the physical environments of the United States, Canada, and Latin
- The nations and regions of the Western Hemisphere can be analyzed in terms of spatial organization, plac regions, physical settings (including natural resources), human systems, and environment and society. A region is an area that is tied together for some identifiable reason, such as physical, political, economic, or cultural features.
- The physical and human characteristics of places in the United States, Canada, and Latin America today.
- Culture and experiences influence people's perceptions of places and regions in the United States, Canac and Latin America today.
- The characteristics, distribution, and complexity of cultures found in the United States, Canada, and Latin
- Human actions modify the physical environments of the United States, Canada, and Latin America

The economies of the United States, Canada, and Latin American nations

- Concepts such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, econc growth, and systems can be used to study the economies and economic systems of the United States, Canada, and Latin America.
- Individuals and groups in the United States, Canada, and Latin America attempt to satisfy their basic neec and wants by utilizing scarce capital, natural, and human resources.
- Types and availability of resources are important to economic development in the United States, Canada, and Latin America today.
- The nations of North, Central, and South America depend on one another for various resources & product

Production, distribution, exchange, and consumption of goods and services are economic decisions which nations of North and South America must make.

Science and technology have influenced the standard of living in nations in North, Central, and South Ame

Exchanges of technologies, plants, animals, and diseases between and among nations of the Americas a and sub-Saharan Africa have changed life in these regions.

Nations in North, Central, and South America form organizations and make agreements to promote econc growth and development.

As the economic systems of the global community have become more interdependent, decisions made in or region in the Western Hemisphere have implications for all nations or regions

The governments of the United States, Canada, and Latin American nations

Across time and place, the people of the Western Hemisphere have held differing assumptions regarding authority, governance, and law.

Basic civic values such as justice, due process, equality, and majority rule with respect for minority rights a expressed in the constitutions and laws of the United States, Canada, and nations of Latin

Constitutions, rules, and laws are developed in democratic societies in order to maintain order, provide se and protect individual rights.

The rights of citizens in the United States are similar to and different from the rights of citizens in other nat of the Western Hemisphere.

The roles of citizenship are defined by different constitutions in the Western Hemisphere.

Governmental structures vary from place to place, as do the structure and functions of governments in the United States, Canada, and Latin American countries today.

Concepts such as civic life, politics, and government can be used to answer questions about what governi can and should do, how people should live their lives together, and how citizens can support the proper use of authority or combat the abuse of political power.

(Adapted from: Civics Framework for the 1998 NAEP, p. 19) .

Legal, political, and historic documents define the values, beliefs, and principles of constitutional democra In the United States these documents include the Declaration of Independence, the United States Constitution, and the Bill of Rights. In Canada these documents include the British North America Act and the Canadian Bill of Rights.

Citizenship in the United States, Canada, and nations of Latin America includes an awareness of the patri celebrations of those nations. In the United States these celebrations include: Lincoln's Birl Washington's Birthday, Independence Day, Dr. Martin Luther King, Jr. Day, Labor Day, Columbus Day, Veterans Day, Thanksgiving Day, Election Day, Flag Day, Memorial Day, and Conservation

International organizations were formed to promote peace, economic development, and cultural understar The United Nations was created to prevent war and to fight hunger, disease, and ignorance

Curriculum Framework

Subject Area: Physical Education **Grade Level (Please specify):** K-2

Required	***Required***	***Required***	***Required***	*Optional*	*Optional*
New York State Content Standards	New York State Skills Standards	New York State Performance Indicators (if any)	Assessments (Formal/ including state assessments and Informal)	Resources	Suggested Pacing
What should students know? (Indicate which content is a benchmark standard that will be assessed at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column. Optional: You can also identify essential questions based on the content standards.)	What should students be able to do? (Indicate which skill is a benchmark standard that will be assessed at this grade level (A), and which skills are introduced (I) and/or practiced (P) at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column.)	Indices of quality – What is the nature of the evidence required to demonstrate the standard has been met and the quality of the performance that will be deemed acceptable?	What specific tools will be used to assess which content standard or skills standard at this grade level?	Provide **examples** of the types of materials or programs to be used to support instruction in the content area	When and in what order will the standards be taught and assessed?
Standard 1: Personal Health and Fitness Students will have the necessary knowledge and skills to establish and maintain physical fitness, participate in physical activity, and	1a: perform basic motor and manipulative skills. They will attain competency in a variety of physical activities and proficiency in a few select complex motor and sports activities. (I,	• participate in physical activities (games, sports, exercises) that provide conditioning for each fitness area • develop physical fitness skills through	Team Sports Tournaments		

maintain personal health.	P) 1b: design personal fitness programs to improve cardiorespiratory endurance, flexibility, muscular strength, endurance, and body composition. (I, P)	regular practice, effort, and perseverance • demonstrate mastery of fundamental motor, non-locomotor, and manipulative skills, and understand fundamental principles of movement • understand the effects of activity on the body, the risks associated with inactivity, and the basic components of health-related fitness (cardiovascular, muscle strength, muscle endurance, flexibility, and body composition • demonstrate and assess their fitness by performing exercises or activities related to each health-related fitness component, and establish personal goals to improve their fitness • understand the relationship between physical activity and individual well being			

Standard 2: A Safe and Healthy Environment Students will acquire the knowledge and ability necessary to create and maintain a safe and healthy environment.	2a: demonstrate responsible personal and social behavior while engaged in physical activity. They will understand that physical activity provides the opportunity for enjoyment, challenge, self-expression, and communication. (I, P) 2b: be able to identify safety hazards and react effectively to ensure a safe and positive experience for all participants. (I, P)	• contribute to a safe and healthy environment by observing safe conditions for games, recreation, and outdoor activities • come to know and practice appropriate participant and spectator behaviors to produce a safe and positive environment • work constructively with others to accomplish a variety of goals and tasks • know how injuries from physical activity can be prevented or treated • demonstrate care, consideration, and respect of self and others during physical activity	Team Sports Tournaments		

Standard 3: Resource Management Students will understand and be able to manage their personal and community resources.	3a: will be aware of and able to access opportunities available to them within their community to engage in physical activity. (I, P) 3b: be informed consumers and be able to evaluate facilities and programs.(I, P) 3c: be aware of some career options in the field of physical fitness and sports. (I, P)	• know that resources available at home and in the community offer opportunities to participate in and enjoy a variety of physical activities in their leisure time • become discriminating consumers of fitness information, health-related fitness activities in their communities, and fitness and sports equipment • demonstrate the ability to apply the decision making process to physical activity	Team Sports Tournaments		

Curriculum Framework

Subject Area: Visual Arts **Grade Level (Please specify):** K-2

Required	***Required***	***Required***	***Required***	*Optional*	*Optional*
New York State Content Standards	New York State Skills Standards	New York State Performance Indicators (if any)	Assessments (Formal/ including state assessments and Informal)	Resources	Suggested Pacing
What should students know? (Indicate which content is a benchmark standard that will be assessed at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column. Optional: You can also identify essential questions based on the content standards.)	What should students be able to do? (Indicate which skill is a benchmark standard that will be assessed at this grade level (A), and which skills are introduced (I) and/or practiced (P) at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column.)	Indices of quality – What is the nature of the evidence required to demonstrate the standard has been met and the quality of the performance that will be deemed acceptable?	What specific tools will be used to assess which content standard or skills standard at this grade level?	Provide **examples** of the types of materials or programs to be used to support instruction in the content area	When and in what order will the standards be taught and assessed?

Standard 1: Students will actively engage in the processes that constitute creation and performance in the arts (dance, music, theatre, and visual arts) and participate in various roles in the arts.	Students will make works of art that explore different kinds of subject matter, topics, themes, and metaphors. (I, P) Students will understand and use sensory elements, organizational principles, and expressive images to communicate their own ideas in works of art. (I, P) Students will use a variety of art materials, processes, mediums, and techniques, and use appropriate technologies for creating and exhibiting visual art works. (I, P)	• experiment and create art works, in a variety of mediums (drawing, painting, sculpture, ceramics, printmaking, video, and computer graphics), based on a range of individual and collective experiences • develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events • understand and use the elements and principles of art (line, color, texture, shape) in order to communicate their ideas • reveal through their own art work understanding of how art mediums and techniques influence their creative decisions • identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works	Student-Produced Artwork		

Standard 2: Students will be knowledgeable about and make use of the materials and resources available for participation in arts in various roles.	Students will know and use a variety of visual arts materials, techniques, and processes. (I, P) Students will know about resources and opportunities for participation in visual arts in the community (exhibitions, libraries, museums, galleries) and use appropriate materials (art reproductions, slides, print materials, electronic media). (I, P) Students will be aware of vocational options available in the visual arts. (I, P)	• understand the characteristics of various mediums (two-dimensional, three-dimensional, electronic images) in order to select those that are appropriate for their purposes and intent • develop skills with electronic media as a means of expressing visual ideas • know about some cultural institutions (museums and galleries) and community opportunities (art festivals) for looking at original art and talking to visiting artists, to increase their understanding of art • give examples of adults who make their living in the arts professions	Student-Produced Artwork		

Standard 3: Students will respond critically to a variety of works in the arts, connecting the individual work to other works and to other aspects of human endeavor and thought.	Students will reflect on, interpret, and evaluate works of art, using the language of art criticism. (I, P) Students will analyze the visual characteristics of the natural and built environment and explain the social, cultural, psychological, and environmental dimensions of the visual arts. (I, P) Students will compare the ways in which a variety of ideas, themes, and concepts are expressed through the visual arts with the ways they are expressed in other disciplines. (I, P)	• explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and the reasons for those responses • explain the visual and other sensory qualities (surfaces, colors, textures, shape, sizes, volumes) found in a wide variety of art works • explain the themes that are found in works of visual art and how the art works are related to other forms of art (dance, music, theatre, etc.) • explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines (e.g., mathematics, science, literature, social studies, etc.)	Student-Produced Artwork		

Standard 4: Students will develop an understanding of the personal and cultural forces that shape artistic communication and how the arts in turn shape the diverse cultures of past and present society.	Students will explore art and artifacts from various historical periods and world cultures to discover the roles that art plays in the lives of people of a given time and place and to understand how the time and place influence the visual characteristics of the art work. (I, P) Students will explore art to understand the social, cultural, and environmental dimensions of human society. (I, P)	• look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures • look at a variety of art works and artifacts from diverse cultures of the United States and identify some distinguishing characteristics • create art works that show the influence of a particular culture	Student-Produced Artwork		

Curriculum Framework

Subject Area: Chess **Grade Level (Please specify):** K-2

Required	***Required***	***Required***	***Required***	*Optional*	*Optional*
New York State Content Standards	Skills Standards	New York State Performance Indicators (if any)	Assessments (Formal/ including state assessments and Informal)	Resources	Suggested Pacing
What should students know? (Indicate which content is a benchmark standard that will be assessed at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column. Optional: You can also identify essential questions based on the content standards.)	What should students be able to do? (Indicate which skill is a benchmark standard that will be assessed at this grade level (A), and which skills are introduced (I) and/or practiced (P) at this grade level. For those standards assessed at this grade level, identify the tool to be used in the assessment column.)	Indices of quality – What is the nature of the evidence required to demonstrate the standard has been met and the quality of the performance that will be deemed acceptable?	What specific tools will be used to assess which content standard or skills standard at this grade level?	Provide **examples** of the types of materials or programs to be used to support instruction in the content area	When and in what order will the standards be taught and assessed?
1. Students will learn the basic vocabulary for playing chess	1.1 Students will be able to define basic vocabulary words (checkmate, various chess pieces, etc) (I/P)		Chess Tournaments		
2. Students will learn	2.1 Students will be able	•	Chess Tournaments		

Required	***Required***	***Required***	***Required***	*Optional*	*Optional*
New York State Content Standards	Skills Standards	New York State Performance Indicators (if any)	Assessments (Formal/ including state assessments and Informal)	Resources	Suggested Pacing
basic strategy for playing chess	to play a simple game of chess, with assistance (I/P) 2.2 Students will be able to apply the rules of the game (I/P)				
3. Students will learn to plan their actions	3.1 Students will be able to think about the next move(s) before taking their turn (I/P)		Chess Tournaments		
4. Students will learn the meaning of good sportsmanship	4.1. Students will be able to lose and win graciously (I/P)		Chess Tournaments		

10. Curriculum

(c) Curriculum Implementation Work Plan

Provide a detailed work plan to demonstrate how the applicant team would use the curriculum framework included as Attachment 10(b) to develop the tools that teachers would use to implement the curriculum. At a minimum, your response to this request should include a specific timeline for implementation, identify all key tasks, the personnel that would either lead or participate in the process, and explain the outcome (for example, curriculum maps, scopes and sequence, instructional handbooks, etc.) of the implementation work plan from potential charter approval to start-up.

The first years of a new charter school can be daunting as the principal and other school leaders seek to recruit the best educators, implement and refine the best curriculum, and efficiently run the non-instructional operations of the school. The Success Charter Network is equipped to tackle all of the operations behind the start up of a school so that the school leaders can focus solely on teaching and student learning. Leaders will also benefit from the support of the successful leaders at the other Success Academies.

The SCN academic curriculum is collaboratively designed and implemented by the Director of Instruction, Director of Literacy, Instructional Development staff, school leaders and other instructional experts. In addition, because all Success Academies have the same curriculum, the schools are able to share best practices and resources.

Curriculum Support

The SCN team partners with school leaders to provide extensive guidance and resources to faculty. They create a system of challenging goals and specific unit and lesson objectives—planned backwards from accountability goals—particularly in core subject areas of math, literacy, and writing. This is paired with strong, standards- and vertically-aligned assessments designed to gauge teaching effectiveness and ensure a constant stream of data on student master of skills and objectives.

Instructional support staff, such as the Director of Instruction, Director of Literacy and the Instructional Development team, provides curriculum maps, scope and sequences, calendars, templates, rubrics and all necessary materials to ensure that all teachers are well prepared. These materials are presented and utilized during Faculty Orientation and professional development sessions.

SCN has from day one systematically documented its curriculum to ease the implementation of the Success school model in future charter schools. All materials, including year long scope and sequences, unit overviews, lessons, video models, and general resources can be found on the networked share drive.

SCN also partners with leaders to provide an extensive program of both network-wide and school-based professional development. This includes ongoing professional development and training prior to the launch of each unit and to track student progress against end of unit benchmarks and end of semester benchmarks. This generally occurs during the weekly

professional development time scheduled for each Wednesday afternoon. A more in-depth discussion of the professional development program can be found in Attachment 15.

The Director of Instruction, Director of Literacy and other instructional coaches make regular on-site visits to engage in the same activities, support the Lead Teacher/facilitator, and discuss with teacher teams how to use data and a basic problem-solving model to inform and improve instruction and properly group and accelerate students and create a plan of action for struggling students. This team will present workshops on topics appropriate to the school's needs. Coaches will use professionally developed videos, modeling and interactive sessions to present topics such as strategies for teaching English Language Learners, proactive behavior management, teaching particular reading strategies, or parent involvement.

As mentioned in our policies and strategies for serving students with disabilities and those scholars who are English Language Learners, general education faculty will be given professional development in properly identifying students they suspect may need an IEP or who may be ELL, and other topics including blended programming, co-teaching models and consultant teaching models.

Faculty Orientation

Before the first day of school, all SCN staff members go through an extensive orientation period with specialized training sessions targeted to the needs of the SCN teacher. To ensure all teachers are set up for success, SCN provides an additional week of training for all new teachers. During this weeklong period, teachers undergo training focused on:

- Classroom management
- Professionalism
- School Culture and Values
- Foundations of the SCN Instructional Model

This new teacher training is followed by a three-week orientation period where teachers delve deeper into SCN academics, policies and culture. Teachers undergo training in specialized tracks tailored to their needs, which include, but are not limited to:

- Instructional Components of the SCN THINK Literacy, SFA and Math Programs
- Parent Communication and Involvement
- Building School Culture
- Technology
- SCN Policies and Procedures

Weekly PD and Full PD Days

During the school year, teachers and school leaders have professional development activities on Wednesdays from about 2:30 until 5:00. Additionally, there are eight Professional Development days each year, which allow teachers to spend a full day in school, engaged in Professional Development activities and workshops.

SCN professional development session topics and trainings are determined by school leaders, the Director of Instruction, Director of Literacy, and the Instructional Development staff. Each session is designed to address student achievement and teacher pedagogical needs. Sessions are led by school leaders who receive targeted training of their own from the

Instructional Development and Literacy teams at summer training, Leader Summit, and throughout the year during regular Leader Study Groups led by the Director of Literacy and the Director of Instruction.

While homeroom teachers meet for training focused on Curriculum Components, Specials and Science teachers attend team meetings and trainings led by appointed Specials Team Leaders and plan for upcoming lessons and school events.

To ensure that the needs of novice, returning and veteran teachers are met, professional development sessions are often differentiated into tracks for teachers based on their levels of proficiency. Teachers are either assigned to sessions based on school leader discretion or elect to participate in sessions tailored to their particular needs.

Weekly professional development allows teachers to spend time delving into the unit overviews and unit materials provided by the Director of Instruction, Director of Literacy and Instructional Development staff. Leaders present the new units, lessons, and resources to teachers in network-wide professional development sessions and then follow up at grade team implementation meetings.