



Charter Schools Institute
State University of New York

COMMUNITY PARTNERSHIP CHARTER SCHOOL

FINAL CHARTERED AGREEMENT

Sec. 2852(5) Submission to the Board of Regents

VOLUME 2 OF 5

REDACTED COPY



330 BROADWAY
ALBANY, NY 12207
PHONE: 518-443-5011
Fax: 518-443-5227
www.newyorkcharters.org

ROBERT J. BELLAFIORE
EXECUTIVE DIRECTOR

March 30, 2000

James R. Butterworth
Assistant Commissioner
State Education Department
475 EBA
Albany, New York 12234

Dear Mr. Butterworth:

As referenced in my letter to you of March 27, 2000, please find enclosed additional amendments to the charter for the following schools.

- Central New York Charter School for Math and Science
- Community Partnership Charter School
- Eugenio Maria de Hostos Charter School
- Harbor Science and Arts Charter School
- International Charter School of Schenectady
- Rochester Leadership Charter School
- South Buffalo Charter School

These "Third Amendments" have been executed by all applicants, lead applicant and co-applicants alike, and affirm the validity of amendments to the charter submitted previously to the Department.¹

Sincerely,

A handwritten signature in cursive script that reads "Robert J. Bellafiore".

Robert J. Bellafiore

¹ Please note that one applicant for the Harbor Science and Arts Charter School, Vivian Gamon, has resigned as an applicant and, therefore, was not a signatory to that school's amendment.

**THIRD
AMENDMENT
TO THE
CHARTER
COMMUNITY
PARTNERSHIP
CHARTER SCHOOL**

THIRD AMENDMENT TO THE CHARTER

This agreement is executed as of this 27th day of March, 2000 by and between the undersigned to further amend the charter agreement between them entered into on or about the 1st day of February, 2000, amended previously on the 16th day of March, 2000 (the "First Amendment"), and further amended on this day (the "Second Amendment").

The undersigned hereby ratify that the First Amendment and the Second Amendment, previously entered into, were and are valid amendments to the Charter and that the undersigned are bound thereby.

Capitalized terms used in this amendment are defined as set forth in the Charter unless otherwise indicated as is the use and validity of facsimile signatures and signatures in counterpart.

"The undersigned further agree that the lead applicant has the power, on behalf of any and all co-applicants, to execute and deliver any future amendments or modifications made to the proposed charter, including amendments or modifications to the Application incorporated therein, but only to the extent such amendments or modifications are made prior to the time that the proposed charter is approved by the Board of Regents and a provisional charter issued pursuant to subdivisions 2852(5-a) or 2852(5-b) of the Education Law."

BOARD OF TRUSTEES OF THE
STATE UNIVERSITY OF NEW YORK

Robert J. Bellafiore 3/24/00
Date

By: Robert J. Bellafiore, acting for the Board of
Trustees of the State University

Title: Executive Director, Charter Schools Institute,
State University of New York

APPLICANT

Laura Taylor Swain Date

APPLICANT

Robert Weston Werthamer Date

APPLICANT

Margaret Elmira Tice 3/27/00
Margaret Elmira Tice Date

APPLICANT

Pennee Lenore Bender 3/27/00
Pennee Lenore Bender Date

APPLICANT

Judith Aley 3/27/00
Judith Aley Date

APPLICANT

Kate Elizabeth Wertheimer 3/27/00
Kate Elizabeth Wertheimer Date

APPLICANT

Patti Vecchi Date

APPLICANT

Laura Colvin Bell 3/27/00
Laura Colvin Bell Date

APPLICANT

Jessica Nevins Date

BOARD OF TRUSTEES OF THE
STATE UNIVERSITY OF NEW YORK

Robert J. Bellafiore 3/24/00
Date

By: Robert J. Bellafiore, acting for the Board of
Trustees of the State University

Title: Executive Director, Charter Schools Institute,
State University of New York

APPLICANT

Laura Taylor Swain 3/27/2000
Date

APPLICANT

Anne Elizabeth Wertheimer Date

APPLICANT

Robert Weston Werthamer 27 MAR 00
Date

APPLICANT

Patti Veconi Date

APPLICANT

Margaret Elmina Tice Date

APPLICANT

Laura Corvini Bell Date

APPLICANT

Pennee Lenore Bender 3/27/00
Date

APPLICANT

Jessica Nevins 3/27/00
Date

APPLICANT

Judith Aley Date

BOARD OF TRUSTEES OF THE
STATE UNIVERSITY OF NEW YORK

Robert J. Bellafiore 3/24/00
Date

By: Robert J. Bellafiore, acting for the Board of
Trustees of the State University

Title: Executive Director, Charter Schools Institute,
State University of New York

APPLICANT

Laura Taylor Swain Date

APPLICANT

Anne Elizabeth Wertheimer Date

APPLICANT

Robert Weston Werthamer Date

APPLICANT

Patti Veconi 3/27/00
Date

APPLICANT

Margaret Elmina Tice Date

APPLICANT

Laura Colvin Bell Date

APPLICANT

Pennce Lenore Bender Date

APPLICANT

Jessica Nevins Date

APPLICANT

Judith Aley Date

Secretary/Recording Secretary Page

beginning with children ²⁰⁷

September 27, 1999

Mr. Scott Steffey, President
Charter Schools Institute
Applications Desk
State University of New York
735 Anderson Hill Road
Purchase, NY 10577-1400

Dear Scott,

We are writing to ask that the **Community Partnership Charter School** be granted a charter to open in the fall of 2000. The school is the product of a partnership between the *Beginning with Children Foundation* and a concerned and dynamic group of parents from Brooklyn, NY. As you know, the *Beginning with Children Foundation* was conceived in 1989 to create and support the building of a model public school in New York City, one that would have a significant positive impact on the lives of city children by providing them an outstanding education.

The partnership springs naturally from a mutual desire to reverse the negative performance trend in publicly educated children and to create an exemplary neighborhood school. Based upon the success of the *Beginning with Children School*, the foundation has focused its efforts on replication and dissemination of the *Beginning with Children* model through the New York State charter school movement. One result of that effort is the **Community Partnership Charter School** application now before you.

As a model school, the **Community Partnership Charter School** is committed not only to educational accountability, but to fiscal accountability as well. It will attain its educational and fiscal goals by working largely within the parameters of available public funding.

The **Community Partnership Charter School** will be racially, culturally and economically diverse, reflecting the character of, and playing an integral role in, the community in which its students and their families live. It will offer a rigorous academic curriculum, supplemented by creative learning opportunities developed and offered in partnership with local institutions and businesses. Students will experience their community as an extension of the school and will recognize themselves as valued members of that community. Parents, educators, community members and children will work together to create an atmosphere of joy in learning which prepares students for academic excellence.

By utilizing the experience and success of the *Beginning with Children Foundation* and by drawing on the resources of the community, we expect the **Community Partnership Charter School** will serve as a model for public education. If you have any questions or comments, please feel free to call us.

Sincerely,


Carol F. and Joseph H. Keich
Founders


Laura Taylor Swain
for the Founding Parents



**beginning with children
foundation, inc.**

900 third avenue suite 1801 new york ny 10022
tel: (212) 750-9320 fax: (212) 753-5927

2/10



Application for A Charter School

I. Establishment

1. Name of charter school: The Community Partnership Charter School (CPCS)

The name of the school must include the term "Charter School," and cannot include the name of a for-profit business or corporate entity.

2. Lead Applicant:

Name: Laura Taylor Swain

Address: [Redacted]

Brooklyn, New York [Redacted]

Phone/Fax/E-Mail: [Redacted]

Other Applicant(s):

a) Judith Aley

b) Laura Bell

c) Pennee Bender

Attach extra sheets as necessary (Attachment 1-2)

REDACTED

Attachment I-2

2. Applicants**Lead Applicant:** Laura Taylor Swain**Additional Applicants:**

- Judith Aley
- Laura Bell
- Pennee Bender
- Don Campbell
- Jessica Nevins
- Elizabeth Shlala
- Margaret Tice
- Patti Veconi
- Robert Werthamer
- Anne Wertheimer

LAURA TAYLOR SWAIN

EDUCATION: HARVARD LAW SCHOOL J.D. 1982

HARVARD-RADCLIFFE COLLEGE A.B. (cum laude) 1979

WORK EXPERIENCE:

UNITED STATES BANKRUPTCY COURT Judge
EASTERN DISTRICT OF NEW YORK 1996 to present
75 Clinton Street
Brooklyn, New York 11201

DEBEVOISE & PLIMPTON Counsel 1995-1996
875 Third Avenue Associate 1983-1995
New York, New York 10022

Employee benefits, ERISA, employment law, and related litigation.

NEW YORK STATE BOARD OF LAW EXAMINERS Member
7 Executive Centre Drive 1986-1996
Albany, New York 12203

THE HON. CONSTANCE BAKER MOTLEY Law Clerk
(Former) Chief Judge 1982-1983
U.S. District Court, S.D.N.Y.

BAR ADMISSIONS: New York, Massachusetts, E.D.N.Y., S.D.N.Y

PUBLICATIONS AND SPEAKING ENGAGEMENTS:

"Thoughts on the LSAC Bar Passage Study – Good News and Good News" (Author) 67 The Bar Examiner No. 4, at 16 (November 1998)

"Interpreting the ADA on Health Coverage, Workplace Harassment" (Co-author) 16 National Law Journal No. 11, at S5 (November 15, 1993)

Sections 22.02, 22.03, 22.04 (relating to employee welfare funds, retirement systems and ERISA preemption) (Author), New York Insurance Law (Matthew Bender 1991)

"Postretirement Welfare Benefits: A New Look at Old Commitments" (Co-author), 21 Compensation and Benefits Review 5 (Sept.-Oct. 1989)

"A Closer Look at Defensive ESOPs" (Co-author), 3 Insights 3 (June 1989)

Speaker at conferences and programs on bankruptcy-related topics, including limited liability companies and bankruptcy law, consumer bankruptcy, Family and Medical Leave Act, Americans with Disabilities Act, employee benefit plan participant communications, ESOPs, bar admissions and examinations, lawyer professionalism. Study materials published in connection with conferences.

BAR ASSOCIATION MEMBERSHIPS AND ACTIVITIES:

American Bar Association; Association of the Bar of the City of New York (Committee on Employee Benefits, 1994-1998; Committee on the Profession, 1988-1992; Secretary, Committee on Minorities in the Profession, 1985-1986); Metropolitan Black Bar Association; National Association of Women Judges; National Conference of Bar Examiners (Multistate Bar Examination Committee, 1987-1999; Testing, Research and Development Committee, 1990-1995; Long Range Planning Committee 1995-1996); National Conference of Bankruptcy Judges; New York State Bar Association.

COMMUNITY ACTIVITIES:

Coalition for Consumer Bankruptcy Debtor Education (Board member, 1998 to present); The Dessoff Choirs, Inc. (singing member 1984-1992; member of Board of Directors (Budget and Finance Committee, Contributing Membership Chair) 1985-1986); Diocese of New York (Episcopal) (Trustee 1990-1991 (Human Resources and Long Range Planning Committees)); Episcopal Charities, Inc. (Board member, 1996-present); Grace Church in New York (Warden, 1997-1999; Vestry member 1989-1995; Chair, Federal Buildings Stewardship Team (capital campaign) 1989-91; Head Acolyte 1984-88; Lay Reader and Chalice Bearer 1986-present).

Laura Taylor Swain
Biographical Sketch

Laura Taylor Swain was graduated from Harvard-Radcliffe College cum laude with a B.A. in Government and from the Harvard Law School. Judge Swain served as a law clerk to the Honorable Constance Baker Motley, then the Chief Judge of the United States District Court for the Southern District of New York. She practiced law as an associate and as Counsel with the New York-based firm of Debevoise & Plimpton, concentrating in employee benefits, ERISA, employment law and related litigation. Judge Swain also served as one of the five members of the New York State Board of Law Examiners for ten years prior to her appointment as a Bankruptcy Judge. She is the author of several publications on ERISA, employment law, ESOPs and insurance law topics, and has been a speaker on bankruptcy-related topics, including consumer and business bankruptcy issues, as well as on ERISA, ESOPs, bar admissions and attorney professionalism. Her volunteer work includes service as a founding member of the Board of Directors of the Coalition for Consumer Bankruptcy Debtor Education, a broad-based non-profit organization founded in 1998 to develop a debtor education program for national implementation. She was sworn in as a United States Bankruptcy Judge on November 1, 1996 and serves in the Brooklyn courthouse of the United States Bankruptcy Court for the Eastern District of New York.

ASSOCIATE PRODUCER ISAMU NOGUCHI: THE SCULPTURE OF SPACES
 Directors: Charlotte Zwerin and Kenji Hayashi, Produced by Alternate Current for Sapporo Television Broadcasting.
 Video feature documentary about the public works of renowned sculptor.
 (1995)

RESEARCHER GENERAL HEADQUARTERS TAKES TO THE AIR
 Director: Toshio Uratani, Producer: TV MAN UNION, Japan.
 Television documentary about the Radio Branch of General Headquarters in Mac Arthur's Japan.
 (1993)

LINE PRODUCER/RESEARCHER FREEMAN DYSON: A GIFT TO THE UNIVERSE
 Director: Ken Hibino, Producer: TV MAN UNION, Japan.
 Three-part science series developed with and hosted by eminent physicist.
 (1992)

LINE PRODUCER/RESEARCHER WHAT REALLY HAPPENED AT PEARL HARBOR
 Director: Tsutsumu Konno, Producer: TV MAN UNION, Japan.
 Video documentary examining evidence of Roosevelt's fore-knowledge of Pearl Harbor attack.
 (1991)

ARCHIVAL RESEARCHER THE FIRST PRISONER OF WAR
 Director: Hideo Onchi, Producer: Galaxy One, Japan.
 Television documentary about experiences of Kazuo Sakamaki, captured in Hawaii in 1941 and imprisoned in the US for duration of World War II.
 (1990)

LINE PRODUCER/RESEARCHER A GLIMPSE OF THE FUTURE WITH ARTHUR C. CLARKE
 Director: Naoto Tanaka, Producer: TV MAN UNION, Japan.
 Five-part science series developed with and hosted by science fiction writer.
 (1988 - 1989)

1984 - 1988
 Freelance production assistant, researcher and reporter for Japanese television commercials and programs produced in the United States.

1981-1984
 Taught English as a second language in Kyoto, Japan.

Education:
 Bachelor of Arts, Connecticut College, 1979
 National Theater Institute
 Languages: Japanese

Pennee Bender

Brooklyn, NY

EDUCATION

New York University

Ph.D. (ABD), U.S. History (Dissertation: The Use of Film in the Good Neighbor Policy, 1930 to 1950.)

Master of Arts, U.S. History, 1990 and Certificate in Public History, 1991

Bachelor of Fine Arts, Film & Television Production, 1978

EDUCATIONAL MEDIA PRODUCTION EXPERIENCE (partial listing)

Acting Media Director, American Social History Project/ Center for Media and Learning. Produced *Who Built America? From the Great War of 1914 to the Dawn of the Atomic Age* a CD-ROM based on the book *Who Built America?* Project Director of *History Matters: The U.S. Survey Course on the Web*, an extensive Web resource site for teachers. Produced, directed, and wrote *Savage Acts: Wars, Fairs and Empire*, Co-directed and co-produced *Up South* and *Heaven Will Protect the Working Girl*. Awards granted: Silver Award, 1997 World Fest, Silver Hugo, Intercom '97, Bronze Apple, 1996 National Educational Media Festival, 1993 John O'Connor Award by American Historical Association, Silver Hugo by the Intercom '93; Silver Medal by the 1993 New York Festivals. 1992 to present.

Educational Multimedia Producer, Scholastic Publications - Produced, directed and co-wrote *Struggles for Justice* a two hour interactive videodisc and curriculum package for high school education in US History. The videodisc includes video stories, maps, charts, time-lines, biographies, audio debates and teacher activities for African American, Indian, Latino, Labor, Women and Immigrant history. 1989-1991

Co-Producer, Co-Director, Center for the Study of Filmed History - *De Peliculas: Archives in Latin American Conflict, 1890 - 1940*. Co-produced and researched a feature compilation film on the history of U.S. relations with Latin America and the image of Latin Americans in U.S. media. 1988

Co-Producer/Co-Director, *Missing Persons/Personas Ausentes* - a 16mm documentary film on disappeared political prisoners in Chile. Awards at the American Film Festival, Edinburgh Film Festival, Latin American Film Festival and Hemisfilm Festival. 1980

TEACHING EXPERIENCE (partial listing)

Instructor, Cornell University, Program in Industrial and Labor Relations - teach women and labor history course, "History of Working Women in America" to adult students. 1996 to Present

Teaching Assistant, NYU, Department of History - taught sections of undergraduate American history survey courses, "United States History to 1877" and "United States History Since 1877." 1992/93

Artist-in-Residence, New York Public Schools - taught animation and video production to elementary and high school students as a grant recipient of New York Foundation for the Arts. 1983

PAPERS AND PRESENTATIONS (partial listing)

"Oral History on the Web: *History Matters: The U.S. History Survey Course on the Web*," Oral History Association Annual conference, Buffalo, NY, October, 1998.

"Connecting the Social to History" a workshop for the Committee on Women in the Arts: Grounded Connections: Media Advocacy For A Feminist Discourse at the College Arts Association Conference, January, 1997.

"Good Neighbors, Bad Advice--Film in the Service of the Good Neighbor Policy" paper presented at the Brazilian Association for American Studies Conference, Rio de Janeiro, June 1994.

REDACTED

Donald F. Campbell

Writer • Producer

Brooklyn, NY

From interactive multi-media to traditional broadcasting and political consulting, Don Campbell has served many roles in worlds of film and video production and strategic communications. He has produced, written, designed, directed, budgeted and edited long-form documentaries, CD-ROMs, commercials, graphics, speeches and print materials for broadcast television, major corporations, museums, schools, theaters and the campaign trail.

Since 1993, he has focused primarily on writing, producing dozens of documentary scripts for National Geographic, Discovery, The Learning Channel and various independent producers.

1990-92 he served as Director of Production for TIME Magazine's pilot program in interactive multi-media with Warner New Media. His first CD, Seven Days in August, was named "CD-ROM of the Year" by MacWorld Magazine in 1994. For "Seven Days," Campbell supervised the creation of a vast archive of video, oral history, audio and stills, reference text, and computer games and directed their integration into a coherent and inviting structure. He hired and managed all New York based production staff; coordinated research efforts in New York, Los Angeles, Washington, London, Bonn, Berlin and Moscow; directed the production of all audio-video segments; and managed the production budget. Other work in interactive has included drafting vision and top-level design documents for a variety of formats, including online and interactive audio. In 1994 he declined an invitation to join DC Comics Publications as their Director of New Media in order to spend more time with his family.

1984-89 he worked predominantly in political communication with the Sawyer/Miller Group and Ailes Communications. While at Sawyer/Miller, Don lived in Ecuador for nine months serving as executive producer and communication strategist to the campaign of President Rodrigo Borja. In addition to supervising all broadcast media for the Borja campaign he was called on to draft talking points and coach the candidate for public appearances and often mediated between conflicting factions of a broad-based coalition.

In 1984, Campbell pioneered the use of home-video in politics, producing a series of issue-oriented "video position-papers" for Senator Gary Hart's presidential bid. In 1987, while with Sawyer/ Miller, he designed a comprehensive new-media campaign for Sen. Hart's second, abortive presidential bid, integrating modular video-cassettes and computer BBS into a "first strike" distribution system aimed at circumventing traditional news coverage.

The proud father of two ridiculously entertaining little boys; Owen (5 years) and Tobias (3); Don devotes what little spare time remains to inventing Zuppalloons, a new line of innovative flying toys; writing The Outlandish Adventure of Count Zuppalloon!, a three volume, epic fantasy for children; and helping to found a charter school in Brooklyn.

Campbell majored in Russian Studies at Yale University, class of 1979. His experience in film and television production began in 1980 at New York University and as a stage manager for Mothers Studio on Manhattan's lower east side. He has also studied civil engineering, set design, acting and directing at college level.

REDACTED

Brooklyn, NY

Jessica Nevins

- Objective** To enable children to realize their own natural potential to become fluent music makers.
- Experience**
- 1998-present Music Together of Park Slope Brooklyn, NY
Co-Director/Teacher
- Created teacher training program
 - Work with an average of 100 children a week in group classes with parents/caregivers to create a rich musical environment and educate families about supporting musical growth in everyday life.
 - Manage staff of five teachers
 - Implemented pilot program for infants
 - Conducted parent education evenings
- 1995-1998 Music Together of Clinton Hill Brooklyn, NY
Founder/Teacher
- Composed songs to build community pride
- 1994-1998 Holy Apostles Church New York, NY
Soprano Soloist/Assistant to Choirmaster
- Participated weekly in sung services with an emphasis on chant and early music in a professional octet with occasional solos.
 - Developed filing system for music library
- Education**
- 1984-1986 Conservatorio Cherubini Florence, Italy
- Diploma Vocal Performance
- 1986-1987 Boston Conservatory Boston, MA
- Opera Workshop
- Performance**
- As soloist in concerts and oratorio throughout Italy and the US.
- Member of New York Choral Artists (With New York Philharmonic)
- Other**
- Fluent in Italian,

REDACTED

Margaret Tice

[REDACTED], Brooklyn, New York [REDACTED]
 Telephone: [REDACTED] (work) [REDACTED] (home)

Experience:**QUEENS BOROUGH PUBLIC LIBRARY, 1997-present****Coordinator, Community Youth Services, 1997-present**

In charge of library outreach to youth.

Manages the Connecting Libraries and Schools Project (CLASP), serving 7 school districts and 195,000 students (K-8) with \$3.7 million budget.

Administers the Latchkey Enrichment Project, an after school program in 33 branches.

Liaison with other cultural institutions in Queens that serve children and teens, facilitating the KidsWorld Queens Activities Fairs, summer calendars and other collaborative projects.

Supervises the Assistant Coordinator of Young Adult Services.

Collaborates with Children's Services and Young Adult Services for training and program development.

BROOKLYN PUBLIC LIBRARY, 1981-1997**Manager, Connecting Libraries and Schools Project, 1997**

Administered outreach program to schools, students, educators and parents.

Project served four school districts, 110,000 students (K-8) and 31 Brooklyn Public Library branches.

Managed \$1.695 million budget and 9 full-time staff.

Assistant Coordinator, Public Service Support Office, 1992-1997

Created and administered system-wide programming for all ages.

Consultant to branches regarding library programs for all ages.

Planned and conducted training sessions for librarians on services and materials for adults, young adults and children.

Administered RIF budget, ordered materials, analyzed statistics, wrote annual grant proposal and report.

Wrote LSCA Child's Place reports and ordered materials.

Planned, administered, and evaluated Summer Reading Program.

Administered collection development procedures and policies, 1992-1995.

Administered periodical budget for the branches, 1992-1995.

Supervised Adult and Juvenile Replacement Committees and Order Lists, 1992-1995.

Produced comprehensive report for Brooklyn Public Library's strategic management plan as Chair of Services for Families and Youth Committee, 1993-1994.

Administered video budget and ordering for the branches, 1992-1995.

Branch librarian, East Flatbush Branch, 1991-1992

In charge of an agency with over 100,000 in circulation.

Assistant Branch Librarian, Flatlands Branch, 1989-1991

Supervised adult services.

Trained and supervised staff of 5 librarians.

Administered materials budget for branch with circulation of over 300,000.

Member of the Youth Advisory Board; created booklists for young adults.

REDACTED

Child's Place Librarian, Child's Place for Children with Special Needs, 1987-1991

Established a new program funded by a Coordinated Outreach Services Grant from New York State, which continues to be a national model of service to young children with developmental, emotional, and physical disabilities.

Conducted community outreach, wrote grant reports, designed and conducted programs, ordered materials and equipment.

Children's librarian, New Lots, Macon, Bay Ridge, Kensington, Williamsburgh Branches and the Central Children's Room, 1981-1987

Children's librarian, conducted class visits, ordered materials, created and conducted programs.

Trained librarians and trainees in children's services.

Created bibliographies, served on booklist committees, served on Film Selection Committee.

Chaired the Picture Book and Juvenile Fiction Replacement Committees.

Columbia University Libraries, Columbia University, New York City**Copy Cataloger, Rare Books, Original Monograph Department, 1980-1981**

Searched RLIN database to match cataloging records for rare books.

Identified first editions, signed bindings, etc. for the original cataloger.

Leonia Public Library, Leonia, New Jersey**Children's Librarian, 1977-1980**

In charge of children's services, including collection development.

Planned and conducted programs.

Conducted community and school outreach.

Collaborated with elementary and middle school librarians.

Produced library newsletter for children.

Created and conducted summer reading programs.

Education:**Columbia University, School of Library Service**

Advanced Professional Certificate, 1992

M.S., Course Concentration: Services for Children and Young Adults, 1977

Cornell College, Mount Vernon, Iowa

B.A., English, 1976

Professional Activities:**American Library Association**

ALA/Children's Book Council Committee, 1999-present

Association of Library Service to Children

Chair, Econo-Clad Committee, 1996-present

Young Adult Library Service Association, Publications Committee

Public Library Association

New York Library Association

PATRICIA VECONI**RESUME****BROOKLYN, NY****EMPLOYMENT****JULY 1993 - PRESENT****JUNE 1996 - PRESENT****THE ELIZABETH SETON CHILDBEARING CENTER
222 WEST 14TH STREET, NEW YORK, NY 10018**

Coordinator of pregnancy and childbirth education program for women and their families. Also a teacher of childbirth education at the birth center.

NOV 1995 - APR 1996**UNION TEMPLE OF BROOKLYN
17 EASTERN PARKWAY, BROOKLYN, NY 11238**

Coordinator of drop-in center activities for toddlers and their caregivers to meet and play every morning.

JUNE 1991 - JUNE 1995**BOZELL HEALTHCARE
28 W. 23RD ST., NYC 10010**

Managed a full-time and freelance staff of editors, copy typists and computer graphic artists for healthcare advertising and communications company. Acted as liaison between clients and printers, subcontracted multimedia projects and supervised all pre-press production for printed pieces.

MAR 1989 - JUNE 1991**FREELANCE COMPUTER GRAPHICS OPERATOR**

Worked in the pharmaceutical and healthcare advertising industry specializing in launches of new drugs and graphic displays for continuing medical education seminars.

MAR 1987 - MAR 1989**CARLA HALL DESIGN GROUP
261 WEST 85TH STREET, NYC, 10024**

Managed office providing secretarial duties as well as mechanical and computer graphic layout.

EDUCATION**1982 - 1985****VIRGINIA COMMONWEALTH UNIVERSITY
BFA in Theater and Music. Graduated Magna Cum Laude.****1994 - 1996****CHILDBIRTH EDUCATION ASSOCIATION OF METROPOLITAN NEW YORK
Certification in Teacher Trainee Program.****CIVIC WORK****1995 - PRESENT**

Boardmember of the Childbirth Education Association of Metropolitan New York. This organization provides pregnancy and childbirth education to poor and challenged populations in New York.

1991 - PRESENT

Park Place/Underhill Avenue Block Association: Current President.

[Redacted] Brooklyn, NY
Tel: [Redacted] Fax: [Redacted]
e-mail: [Redacted]

Curriculum Vitae

PROFESSIONAL EXPERIENCE:

- 1995 - PRESENT ROBERT WERTHAMER, RA, New York
Principal, Architectural office, various residential, retail, and commercial projects
- 1995 - PRESENT [Redacted] New York
Project Manager, Construction Management, various residential and commercial projects
- 1991 - 1992 MASSIMILLIANO FUKSAS ASSOCIATI, Rome, Italy
Project Architect, Architectural office, junior high school in Noisy-Le-Grand, France
- 1988 - 1991 CLARK CONSTRUCTION CORPORATION, New York
Field Supervisor, Construction Management, various residential, hospitality, and commercial projects
- 1988 - 1991 DANIEL PANG & ASSOCIATES, New York
Project Designer, Architectural office, various urban, landscape, and commercial development projects
- 1988 - 1991 S.I.T.E. PROJECTS INC., New York
Project Architect, Art and Architectural office, various residential, retail and commercial projects
- 1977 - 1981 RICHARD BALSER ENGINEERS, New York
Project Engineer, Mechanical, Electrical, and structural design

EDUCATION:

- 1997 - PRESENT HUNTER COLLEGE
MFA Candidate, Sculpture
- 1988 PROFESSIONAL ARCHITECTURAL CERTIFICATION
- 1986 PRATT INSTITUTE
Bachelor of Architecture, with honors, President's List
- 1977 - 1979 MASSACHUSETTS INSTITUTE OF TECHNOLOGY

RELATED EXPERIENCE, EXHIBITS, AWARDS:

- 1997 ART-OMI
Landscape installation in *Aedicules* curated group exhibition
- 1996 BELCHER GALLERY, San Francisco
Architectural Installation in *I.D.E.A.S.* curated group exhibition
- 1992 AMERICAN ACADEMY, Rome, Italy
Visiting Artist
- 1988 STOREFRONT FOR ART & ARCHITECTURE, New York
Architectural Installation in *D.M.Z.* curated group exhibition
- 1985 PRATT JOURNAL OF ARCHITECTURE, New York
Founding Editor
- 1982 FRANKFURT MUSEUM OF MODERN ART, Germany
Special conceptual Design Award

REDACTED

For each applicant, provide background information, including whether he or she is a teacher, parent, school administrator, and/or community resident. Indicate whether each is a representative of a college or university, museum, educational institution, not-for-profit organization, for-profit business, or corporate entity. Identify all other relevant affiliations for each applicant

Subsequent to a tentative approval of a charter school application, the Charter Schools Institute shall require a set of fingerprints for each applicant for the purpose of obtaining a state and federal criminal records check. A blank set of non-criminal fingerprint cards will be sent by the Institute to qualifying applicants.

3. I.R.S. not-for profit status:

- Yet to apply
- Pending
- Approved (ID# _____)

Tax-exempt status is required within one year of application submittal.

4. Applicants' partner (college, university, museum, educational institution, not-for-profit corporation, for-profit business or corporation), if any:

Beginning with Children Foundation Inc.

Name of Partner Organization

900 Third Avenue, Suite 1801 New York, NY 10022

Address City/State/ZIP/Phone



Contact Name and Phone

Or: No partner

5. If the charter school is to be established in conjunction with a for-profit business or corporate entity, provide the name of such entity and specify the extent of the entity's participation in the management and operation of the school ("Attachment I-5")

Or: Charter school not to be established in conjunction with a for-profit entity

6. Anticipated opening date for the charter school: September 2000
Month/Year

7. Applicants may request consideration for an expedited review wherein the Charter Schools Institute would waive the normal time line for its review process. Requests must provide compelling reasons. Do you require an expedited review?

- Yes
- No

If "yes," please provide reasons for this request ("Attachment I-7").

8. Requested initial term of charter (up to 5 years): 5 years

9 a) Have you applied to any other chartering entity for a charter?

- Yes
- No

If "yes," indicate entity and date of application submission:

b) If you have previously applied for a charter from another charter entity and it was denied, state the reason(s) it was not approved ("Attachment I-9")

10 Are you requesting a conversion of an existing traditional public school to a charter school? No

REDACTED

Yes No

If "yes," then STOP. DO NOT CONTINUE. The State University of New York Board of Trustees shall only consider applications for new charter schools, and is not authorized to approve charters for existing traditional public schools converting to a charter school.

If "no," then proceed with the application.

II. Mission

11. Attach a mission statement for the school ("Attachment II-11"). Include a discussion of how the proposed charter school is likely to:
- Improve student learning and achievement;
 - Increase learning opportunities for all students and, if applicable, with a special emphasis on expanded learning opportunities for children at risk of academic failure;
 - Use different and innovative teaching methods, if applicable;
 - Increase professional opportunities for teachers, school administrators, and other personnel; and,
 - Provide parents and students with expanded choices in the types of educational opportunities that are available within the public school system; and,
 - Institute a change from rule-based to performance-based accountability systems.

III. School Design And Organization

12. Attach the proposed student admission policy and procedures for the charter school, and include procedures for excess enrollment or targeting a specified student population ("Attachment III-12"). Charter schools are required to be nonsectarian in their programs, admission policies, and other operations. Admission of students to a charter school shall not be limited on the basis of intellectual ability, measures of achievement or aptitude, athletic ability, disability, ethnicity, race, creed, gender (although single-sex schools are allowed), national origin, religion, or ancestry.

If the number of applicants to a charter school exceeds capacity, a random selection process for admission must be used, with preference given to pupils residing in the school district where the charter school is located, students returning for a subsequent year at the charter school, and siblings of pupils already enrolled in the charter school.

The policy also must include procedures for student withdrawal from a charter school.

13. State the grade levels of students to be served by the charter school. Each charter school is required to serve at least one of the grades 1 through 12; nothing precludes a charter school from offering kindergarten.

Kindergarten - Grade 8 (Pre-Kindergarten anticipated 2001)

14. State the ages of students to be served by the charter school.

CPCS will serve children ages 4-15.

15. Detail the expected initial enrollment of the charter school, in total and by grade ("Attachment III-15"). With some exceptions -- such as when the charter school serves a geographically remote region or any other compelling reason -- a minimum student enrollment of 50 students is required by the second year of the school's operation.
16. State the expected future enrollment of the charter school, by grade and total, providing a description of any plans to phase in new enrollment ("Attachment III-16").
17. Attach a proposed school calendar ("Attachment III-17"). Charter schools must provide at least as much instruction time during a school year as required of other public schools (180 days, or the equivalent).

a. Total number of days of instruction: 180 days

Attachment II-11

11. Mission Statement

Founded by a group of Brooklyn parents and the *Beginning with Children Foundation (BwCF)*, the **Community Partnership Charter School (CPCS)** will offer a rigorous academic curriculum, supplemented by creative learning opportunities developed and offered in partnership with local institutions and businesses. The **Community Partnership Charter School** will be racially, culturally and economically diverse, reflecting the character of and playing an integral role in the community in which its students and their families live. **CPCS** students will experience their community as an extension of the school and will recognize themselves as valued members of that community. Parents, educators, community members and children will work together to create an atmosphere of joyous learning which prepares students for academic excellence. The school will serve as a model for charter schools intended to foster commitment to public education among a broad range of residents of diverse urban communities. At the **Community Partnership Charter School**, students will be encouraged to learn from each other in an environment of achievement and security that encourages innovation and experimentation, recognizing mistakes as an essential element of the learning process. This environment will support the acquisition of skills essential to success, first in school and daily life, and later in real-world careers. The **Community Partnership Charter School** will nourish intellectual curiosity from an early age, inspiring its students to become self-directed, independent learners with the curiosity and confidence to dream and to reach for their goals.

Community Partnership Charter School graduates will have learned to be self-confident through a program built on their individual strengths while also developing strategies for meeting intellectual and life challenges head-on. They will have learned to do their best, both academically and socially, and they will be prepared to enter the best of the city's many excellent middle and high schools. They will take with them a strong foundation for responsible and productive future citizenship.

Creating a Balanced School Community

Please note that throughout this application the term "parent" is used to connote guardians and other caregivers as well as traditional parents.

The **Community Partnership Charter School** is primarily intended to serve children of the Prospect Heights, Fort Greene and Clinton Hill neighborhoods in Brooklyn, New York. In these areas, where residents come from a wide range of racial, ethnic and cultural backgrounds, affluent families live side by side with families facing severe economic challenges. Over the past 25 years, local families have made increasingly disparate choices about their children's education, with many withdrawing from the local public school district to place their children either in private schools or in public schools in other districts. Families without the resources or knowledge to seek other options for their children are left behind in schools where they have little opportunity to affect school programs and structure. Children at risk of academic failure thus are often isolated in schools that have few links to the broader community, and are cut off from resources and access to a range of meaningful role models. Many of the more affluent children have been denied opportunities to develop the types of emotional and practical bonds with their neighbors that foster a sense of community responsibility. Like their counterparts in schools-at-risk, they may not be prepared for life in a diverse society. By directing outreach toward all families in Prospect Heights, Fort Greene and Clinton Hill, including families whose children may be at high risk of academic failure and more affluent families, **CPCS** will offer all children a challenging and well-rounded education in a culturally rich learning environment and revitalize the link between school and community.

CPCS will work to develop ways of involving parents meaningfully with the school. Upon enrollment, each student's family will be encouraged to sign a "Parent Partnership Agreement" describing their commitment to the school community and to their own children as students. Parents will nominate three members of a nine-member Board of Trustees. Parent orientation will include invitations to participate in volunteer activities designed to enrich the school community, such as tutoring individual children, preparing classroom materials for teachers, fund raising, and developing new external partnerships. The founding parents have committed to creating this culture of volunteerism and will lead by example. **CPCS** will hold regular parent workshops on subjects ranging from helping children with homework to communicating with children.

Working within the System

As a public school within the system and a *BwC* model school, the **CPCS** is committed not only to educational accountability, but to fiscal accountability as well. Our primary emphasis is on community enriched and sponsored education. As we endeavor to create the atmosphere and infrastructure that is required to provide such a public education, we are aware that one significant measure of our success will be the degree to which our format conforms to existing public school parameters. This is true both in terms of the amount of instruction time and in terms of the funds allocated per pupil.

If we are to serve as a fiscal model, we must be able to educate our children while maintaining a budget that could be supported, in the long run, through public funding. Our philosophy is, and will continue to be, one of fiscal responsibility. The per-student budget allotment for the 1999 fiscal year for *Beginning with Children School (BwCS)* was \$8,380. Our average per-pupil allotment for **CPCS** for the first five years of the charter is \$8,720, exclusive of real estate costs. Given the inflation factor in the **CPCS** average and the decreasing per pupil costs over time as the staff/student ratio decreases, **CPCS** represents a sound fiscal model in support of a proven educational plan (*Beginning with Children School*).

It is clear, however, that the demands of housing the school within New York City may preclude us from operating strictly on NYS charter revenues. We may also find that meeting the special needs of the children in the school will require private funding. As we have done with *Beginning with Children School*, we will incorporate these variables into our public model, in educational and fiscal terms, as the school develops. The *Beginning with Children Foundation* has committed to substantial support in both of these arenas. (For fiscal support, please see Budget Attachments)

Educational Approach, Improving Student Learning, Curriculum Focus

Drawing on the *Beginning with Children Foundation's* 10 years of experience in developing and supporting the *Beginning with Children School* in Williamsburg, Brooklyn, **CPCS** will take a pragmatic approach to ensuring student success. In June 1997, based on the 1997 annual citywide test results, *BwCS* received the New York City Literacy Hero Award from the Mayor and Chancellor for being the most improved elementary school in New York City. *BwCS* has demonstrated continued success since that time (see Appendix A). Most importantly, **CPCS** will replicate the *Beginning with Children School's* early and continuous individual assessment of

each child using a variety of standard and non-standard assessment tools. This permits teachers to know from the start the baseline level of performance to expect in each subject area, to pinpoint each child's unique abilities and needs, and to address those needs and abilities through individual education plans. It also provides relevant baselines for assessment of teacher performance. The *Beginning with Children Foundation* will oversee and support development of the integrated approach to assessment, curriculum development, and staff development that will characterize the **Community Partnership Charter School**. In a school that will draw children of all abilities, the use of such individualized education plans is essential to student success. All students will benefit from a level of individual attention that is often unavailable in the public school system.

Curriculum content will be balanced and integrated. **CPCS** curriculum is based on standards that represent a synthesis of the best current state and national standards, standards developed by existing charter and private schools, and the educational plan of the existing *Beginning with Children School* in Williamsburg. **CPCS** curriculum is child-centered and will be implemented in a supportive environment that draws on community and parental resources to make learning effective, rewarding and integrated with community. In addition to a strong emphasis on mastering reading, math, science and social science, programs will be developed in music, the visual arts and physical education. In all curriculum areas, basic skills will be linked to higher-order analytical thinking and creative problem-solving skills through hands-on learning and real world experiences.

Unique to the school are the many educational opportunities that will be offered in partnership with local institutions and a high level of volunteer support from parents and community members that will increase the adult-child ratio in **CPCS** classrooms. Community resources will be integrated into the curriculum through partnerships with local institutions that have programs in place for schools, such as the Brooklyn Botanical Garden. **CPCS** will also partner with the following institutions to develop special programs specifically for the school: Music Together of Park Slope, the Brooklyn Museum of Art, the Brooklyn Academy of Music, and the Prospect Park Alliance. Other learning opportunities that will enrich the children's school experience will include areas such as foreign language, theater arts and the law. For example, a judge will assist in the development and implementation of a curriculum designed to introduce **CPCS** students to the legal system; a dance movement therapist will help us develop an arts curriculum for the school. Field trips will supplement classroom learning throughout the school year. These programs will be developed in collaboration with the community partners and school staff. In keeping with the concept of Community Partnership, students will not only learn from community members and institutions but will also be involved in community service and be encouraged to use their time and skills to give back to others in the community.

Initial support has already been promised by (see Appendix E):

- Brooklyn Academy of Music
- Brooklyn Children's Museum
- Brooklyn Museum of Art
- Brooklyn Public Library
- Community Networks, Inc,
- Dahesh Museum
- Many Hands Studio
- Monte Allen's Seido Karate
- Music Together of Park Slope
- Prospect Heights Association
- Prospect Heights Alliance

A synopsis of community partnership links follows each subject area of the curriculum (see Attachments 25 and 26).

Assessment, Curriculum Development, Staff Development

The CPCS programs will be based on the existing *Beginning with Children* model. The *Beginning with Children* educational model derives from a tripartite process of assessment, staff development, and curriculum development that has marked the success of the school. It is essential that children be assessed accurately in order for teachers to follow their progress and tailor the delivery of curricula to children's current knowledge and skill levels. Accurate assessment of children's needs also helps the school to identify any teacher training that may be required to enable individual teachers to provide appropriate support to their assigned students. **Professional development and student assessment are thus critically linked and form the essence of our strategy for success.**

The development of excellent literacy skills is a primary goal of CPCS. The strategy developed and tested at *BwCS* which accounts for the success of the school, is to develop literacy by measuring language ability very early in school (via the *Rhode Island Test of Language Structure*) and to match that performance against literacy skill levels in the early grades (measured by the *Peabody Individual Achievement Tests*). Language ability is the best predictor of later reading performance and provides the baseline for the measurement of later reading and language skills. If there is a disparity between the ability and the skill levels of children early on, either the curriculum or the teaching strategy (or both) must be adjusted so that children's skill levels become consonant with their ability levels. Typically, as was the case at *Beginning with*

Children School, the distribution of language ability is normal even though the population may be disadvantaged. Eighty to ninety percent of the children in the most disadvantaged neighborhoods, in other words, are fully capable of developing sophisticated literacy skills.

It should be noted that the critical feature in this model is the early demonstration to both teacher and child that the child has the *ability* to perform at the same high level as other children in the school, the neighborhood, the city, the country, etc. The *ability/skill discrepancy*, if one exists, allows the leadership of the school to focus on curriculum delivery and make any necessary adjustments for each child, and/or to determine the extent to which teachers are responsible for the discrepancy and provide appropriate staff development. The strategy removes the onus of failure from the child and places it outside of the child where it belongs. Failure to teach children to learn results, more often than not, from a lack of belief in their ability to learn rather than their own insufficient intelligence.

The evaluation of other early-childhood skills (like mathematics) represents a generalization of the same principle of early measurement and comparison. The comparison can be to the child's own ability level or to the performance levels of other children his or her age or grade. The *BwC* student evaluation model continues to emphasize the cyclical relationship of high standards, student assessment, staff development, and curriculum development throughout the elementary and middle school years of the students. Ultimately, the success of each child represents an evaluation of the school, its teachers, and its programs.

Upon enrollment in *CPCS*, all children will be evaluated by the *BwC Foundation* research team. Each child's skill levels will be reassessed each spring. Important performance goals included in this evaluation strategy are:

- In grades K and 1, students will obtain standard scores on the Reading Recognition, Reading Comprehension, and Spelling subtests of the *Peabody Individual Assessment Test* that are equal to or greater their standard score on the *Rhode Island Test of Language Structure (RITLS)*;
- With the exception of students whose ability levels as measured by the *RITLS* or other ability measures show them to be unable to perform to standards, all students will be expected to perform at or above grade level on all city, state and *BwCS*-administered tests. Based on *BwCS* experience, however, some students who show normal language ability may perform below grade level due to a variety of complex home and environmental factors. For these students, the rate of progress toward this goal may vary, and the amount of improvement will be critical (see below);

- To the extent that students are performing below grade level on any test, they will be expected to show improvement from one year to the next until their performance is at or above grade level;
- With respect to students whose ability levels are shown to be less than normal by some measure, these students will be expected to show improvement and movement toward higher levels of performance as their education progresses.

The specific values that are used in these goals will vary from child to child and will be determined through initial and continuing measurement of the children.

Creating Opportunities for Teachers

CPCS teachers will be expected to understand disparity in student assessments or will be trained to develop this sensitivity. Staff development is an essential element of success of the model. Teachers will have an opportunity through staff development to hone their teaching techniques and refine their teaching strategies. Through continual assessment of the children, teachers will recognize how to adapt their curricula and will learn to understand where they need training in specific areas. The **CPCS** will sponsor teaching training in courses, workshops, seminars and conferences that will strengthen and broaden teachers' professional horizons. The *Beginning with Children Foundation* will provide substantial support for professional and curriculum development needs as identified by ongoing student and teacher assessments. In the initial years of the school, this process will be monitored and administered by the *Beginning with Children Foundation*.

CPCS will offer teachers the freedom to develop their own approaches to teaching and to adjust the details of curriculum as long as their students fulfill **CPCS** learning standards. A talented and imaginative teacher will not be bound to the dictates of a rigid curriculum or instructional approach, but will be supported as he or she develops ways to help individual students succeed based on a strong understanding of individual needs, strengths and styles of learning. Strong support will be provided for talented but less experienced or creative teachers. Teacher assessments will be rigorous and systematic, focusing on the educational progress of students.

School Growth and Calendar

The school will begin with two classes each in kindergarten and first grade, adding a grade per year throughout the first charter term. In the initial years of the school, which will begin with 4-6

year olds, **CPCS** will not provide extended-day or extended-year programs. The focus will be the creation of a model for educational success with younger children based on a regular school day and year. The strength of the early-childhood program and our choice of teachers in combination with background support from *BwCS* should preclude the need for longer school hours to achieve the school's primary academic and non-academic goals. All program development decisions, including those regarding extended school time, will depend on our individual assessments of students as they develop in the early school years. We feel strongly that focusing on the basic early-childhood curriculum in the initial years of the school is essential in securing a strong, successful well-rounded program for future school years.

Attachment III-12

12. CPCS Admission Policy and Application Process

The CPCS welcomes all families with eligible children to apply to attend the school. The purpose of CPCS's application process is to:

- Identify interested families with eligible children
- Communicate the school's mission and expectations to prospective students and their parents
- Confirm that the student and his or her family are committed to the mission of the school and embrace the high level of involvement with school and community that is fundamental to the school's success.
- Provide a way to assess the level of community interest in the CPCS program, and a means to enroll students through a random lottery

Tuition will not be charged to any student. Admission to CPCS will not be restricted based on a student's intellectual or physical ability, race, ethnic background or religion. However preference is given to two categories of applicants as follows:

- Students who are enrolled at CPCS in the prior school year are automatically admitted without re-application and/or are automatically retained.
- Siblings of students who are already enrolled at CPCS.

Interested students and their families will submit applications to CPCS. Within each grade level, applications will be further sorted into the following categories:

- Students currently enrolled at CPCS
- Siblings of students currently enrolled at CPCS
- All other applicants

All applicants in Category 1 will be admitted. All applicants in Category 2 will also be admitted, provided that there is a sufficient number of spaces available in the relevant grade level. If there are more Category 2 applicants than spaces available for a given grade, a random lottery will be conducted among the Category 2 applicants for that grade level. This lottery will determine which siblings will be admitted to the school. The lottery will continue until all names have been selected in order. All applicants in excess of the number of available spaces will be placed on a waiting list. Rank on the list will be determined by lottery.

If spaces in the school remain available following the admission of all Category 1 and Category 2 applicants, Category 3 applications will be considered. If there are more spaces available in each relevant grade level than there are Category 3 applicants, all Category 3 applicants will be admitted to the school. In the event that there are a greater number of Category 3 applicants than spaces remaining available, CPCS will conduct a lottery to select students for admission. As with Category 2 applicants, the lottery will continue until all names have been selected in order, for the purpose of creating a waiting list for any vacancies that may occur.

All unsuccessful applicants will be assigned places on the CPCS waiting list. All Category 1 applicants will be higher on the waiting list than Category 2 applicants. All Category 2 applicants will be higher on the waiting list than Category 3 applicants.

If a student withdraws from the CPCS, the first student on the waiting list for the grade level of the withdrawn student will be invited to enroll in the school. If that student declines, the next student on the waiting list will be invited to enroll in the school. This process will continue until a student accepts the invitation to attend CPCS. Students who decline an invitation to attend CPCS will be removed from the waiting list. Such students may re-apply during the application period for the following school year. Students on the waiting list are rolled over from one year to the next and therefore do not lose their priority from one year to the next.

Outreach for the School

The founding parents and *BWCF* have engaged in broad outreach efforts over the past two years, principally in the target geographic areas. Public meetings, which have been attended by a total of more than 200 people, have been held in homes, community rooms, preschools, a church, and a public school adjacent to two public housing projects. Press coverage of CPCS-related events and activities has been solicited, and flyers have been distributed in local schools and at public events in the target neighborhoods over the past several months. Following the grant of a charter, CPCS will conduct an extensive additional outreach campaign to inform residents of Prospect Heights, Fort Greene and Clinton Hill, Brooklyn, of the school's existence, availability and program. Targeting outreach in these neighborhoods, where residents are of many ethnic, racial and socioeconomic backgrounds, is consistent with our vision of creating a diverse school community. The additional outreach will include public meetings to be held in public housing projects, places of worship, public and private schools and homes. Information about the school will again be distributed to the press, by flyer and by word of mouth. All families included in CPCS's existing mailing list will be notified as well.

Attachment III-15

15. CPCS Expected Initial Enrollment

50 children each in grades K and 1, for total initial enrollment of approximately 100 children.

Attachment III-16

16. CPCS Expected Future Enrollment

The following schedule shows estimated enrollment patterns, assuming the CPCS charter is renewed after the school's fifth year. It shows a final student body of 500 children in a school that serves grades Pre-K through 8. As the school grows, class size reductions will be considered as finances permit.

We intend that children will enroll in CPCS as preschoolers and remain enrolled in the school until they graduate from the 8th grade. Each year, we will add a new grade level to accommodate our growing student body. This design is consistent with the existing *Beginning with Children* model.

Expected Number of Children Enrolled:

	Pre-K	K	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	Total
Year:											
2000		50	50								100
2001	20	50	50	50							170
2002	40	50	50	50	50						240
2003	50*	50	50	50	50	50					300
2004	50	50	50	50	50	50	50				350
2005	50	50	50	50	50	50	50	50			400
2006	50	50	50	50	50	50	50	50	50		450
2007	50	50	50	50	50	50	50	50	50	50	500
2008	50	50	50	50	50	50	50	50	50	50	500
2009	50	50	50	50	50	50	50	50	50	50	500

* This number reflects the addition of 3 Pre-K classes of 16-17 children each.

Attachment III-17

17. CPCS School Calendar**A. Total number of days of instruction:**

As noted in Attachment II-11, CPCS endeavors to educate the majority of its students during the existing public school year of 180 days. After the initial years of CPCS operation, an extended year program will be created if the Director(s) and the Board deem it economically feasible and necessary to achieve CPCS's core academic and non-academic goals for special needs children (see Attachment III-23).

B. Length of School day:

8:40 a.m. – 3 p.m.; 6 hours and 20 minutes. If the school finds that there are students who have difficulty in reaching academic goals, they will be offered support that addresses their specific needs outside of regular school hours. This will occur from 3p.m-6 p.m. on an individualized basis in alignment with the school's educational strategy of assessment and individualized instruction based on each student's needs. We hope that these students will be the exception and not the norm however. The development of any broad-based extended-day program will occur in consultation with school and parent constituencies if the needs of the general population become apparent and as funding is available for such a program.

C. Periods of instruction:

Sample schedules for grades K, 2, 4 and 6 are provided below. Community and interdisciplinary links described in the standards and curriculum sections of this application (see Attachments 25 and 26) may require regular double periods in some subject areas. The Director(s), in consultation with the teaching staff and participating community partners, will determine specific time allocations.

The following schedules are provided as examples. They are not meant to be prescriptive and may change at the discretion of the CPCS Director and teaching staff, once hired.

In the early years of the CPCS, curriculum for the arts including music and dance, and physical education, will be integrated with other subject areas in order to meet CPCS learning standards for these subjects within the course of the regular school day. For example, as part of the Language Arts curriculum students will illustrate stories they write, dramatize folktales, sing songs and do

creative movement related to vocabulary or reading material; the Social Studies curriculum will incorporate art, music and dance related to other cultures; computer skills will be gained through use of educational software related to science, social studies, and language arts curriculum; and park and recess time will offer opportunities for games and sports activities related to the physical education standards.

Kindergarten Weekly Schedule

<u>Time</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
8:40-9:00	Arrival, Read, Journal				
9:00-9:30	Morning Meeting, Story				
9:30-10:15	Science	Music	Science	Music	Science
10:15-10:45	Sound Discovery	Phonemic Awareness	Phonemic Awareness	Phonemic Awareness	Phonemic Awareness
10:45-11:15	Lang. & Art	Recess (Park)	Lang. & Art	Park	Lang. & Art
11:15-11:45	Lunch				
11:45-12:30	Rest				
12:30-1:00	Story Time	Story Time	Park	Story Time	Story Time
1:00-1:40	Park	Math	Math	Math	Park
1:45-2:30	Social Studies	Social Studies	Drawing	Social Studies	Social Studies/ Community Trip
2:30-2:45	Snack				
2:45-3:00	Dismissal				

2ND GRADE WEEKLY SCHEDULE

Time	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
8:40-8:50	Students Arrive				
8:50-9:15	Morning Meeting				
9:15-10:05	Language Arts (Reading) (M,W,F); Language Arts (Reading)/Art (T,Th)				
10:10-11:00	Language Arts (Writing) (M,W,F); Language Arts (Writing)/Arts (T,Th)				
11:00-12:00	Math				
12:00-12:30	Lunch				
12:30-1:00	Recess (Park)				Community Studies
1:00-1:30	Silent Reading				Community Studies
1:30-2:15	Music	Science	Science	Music	Art History
2:15-3:00	S. Studies	Science	Science	Chess	S. Studies/Art
3:00	Dismissal				

4th Grade Weekly Schedule

<u>Time</u>	<u>Monday</u>	<u>Tuesday</u>	<u>Wednesday</u>	<u>Thursday</u>	<u>Friday</u>
8:40-9:30	Science	Foreign Language A/ Computers/ Ind. Reading	Foreign Language A/ Computers/ Ind. Reading	S. Studies	S. Studies
9:30-10:15	Science	Foreign Language B/ Computers/ Ind. Reading	Foreign Language B/ Computers/ Ind. Reading	Math	Math
10:15-11:00	Language Arts (Reading) (M,W,F); Language Arts (Reading)/Arts (T,Th)				
11:00-11:40	Language Arts (Writing) (M,W,F); Language Arts (Writing)/Arts (T,Th)				
11:40-12:10	Lunch				
12:10-12:40	Recess (Park)				
12:45-1:30	Math	Math	Math	Music	Quiet Reading
1:30-2:15	S. Studies/Art	Physical Education	S. Studies	Science	Art/Art History
2:15:3:00	S. Studies	Music	Science	Science	Art/Art History
3:00	Dismissal				

6TH GRADE WEEKLY SCHEDULE

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:40-8:50	Students arrive				
8:50-9:40	Language Arts (Reading) (M,W,F); Language Arts (Reading)/Arts (T,Th)				
9:40-10:20	Language Arts (Writing) (M,W,F); Language Arts (Writing)/Arts (T,Th)				
10:20-11:20	Math				
11:20-11:50	Lunch				
11:50-12:20	Recess (Park)				
12:30-1:15	Science	S. Studies	Science	S. Studies	Science
1:20-2:10	Science	Art	Science	S. Studies	S. Studies
2:15-3:00	P. E.	Foreign/P. E. Language		Foreign Music Language	
3:00	Dismissal				

Computers and arts-related projects will be incorporated into Language Arts, Math, Science and Social Studies at least three times a week. The double period of Social Studies will be used monthly for community service projects.

b. Length of school day: Start 8:40 a.m. Dismissal 3:00 p.m.

c. Attach a description of periods of instruction (classroom times; recess or recreational times; study periods; etc. ["Attachment III-17-c"].)

18. Attach the charter school's student discipline rules and procedures, including proposed guidelines for suspension or expulsion of students, and for due process ("Attachment III-18")
19. Attach any dress code policy ("Attachment III-19")

No dress code policy

- Describe plans for food services to be provided or options under consideration ("Attachment III-20").
- Describe plans for health services to be provided or options under consideration ("Attachment III-21").
- Attach a description of methods to be used to accommodate students with disabilities, including procedures for referring students for services within or outside of the charter school ("Attachment III-22"). Include any arrangements to be made with the resident school district committee on special education.

Students with disabilities attending a charter school are to receive services in accordance with the individualized education program (IEP) recommended by the committee or subcommittee on special education of the school district of residence. The charter school may provide such services directly, by contract with another provider, or arrange to have such services provided by the school district of residence

- Does the proposed charter school include any methods and strategies for dealing with a population of students at risk of academic failure?

Yes

No

If "yes," attach a description of the targeted at-risk student population and describe such methods or strategies ("Attachment III-23")

24. Does the proposed charter school include any methods and strategies for dealing with other targeted student populations?

Yes

No

If "yes," attach a description of the targeted student population(s) and describe such methods or strategies ("Attachment III-24")

IV. Academic Standards And Curriculum

25. Attach a description of the student achievement standards for the proposed charter school ("Attachment IV-25"). Charter schools are required to establish student achievement standards that meet or exceed those established for existing public schools by the New York State Board of Regents.

26. Detail by grade the proposed charter school's curriculum ("Attachment IV-26").

27. Does the educational program or philosophy of this proposed charter school track a model curriculum or design?

Yes

No

If "yes," provide the model curriculum to be used and/or define and describe the standardized education programs ("Attachment IV-27")

28. If the school serves the 12th grade, attach a description of the requirements for a student to be awarded a diploma ("Attachment IV-28")

Not applicable

V. Student Performance Assessment

29. Attach a description of how the charter school will implement state-required tests ("Attachment V-29"). Charter schools are

Attachment III-18

18. CPCS Student Discipline Rules and Procedures

Students will be expected to:

- Support each other's learning and creativity
- Solve problems nonviolently
- Follow staff directions
- Interact with each other in positive, supportive ways
- Speak and act honestly and openly, with kindness and respect for others
- Take care of their own and other's property
- Avoid reckless behavior, especially that endangering themselves or others in the school
- Attend school regularly and be on time for classes and school events

Staff, Parents and community members are expected to observe the same rules.

Responding to Violations of the Rules

A staff member's initial response to a violation of rules will be to stop the violation in a non-violent, non-confrontational manner. Teachers may design their own classroom discipline systems to create a culture that supports the school rules. Teachers must communicate school and classroom rules to students, preferably by explaining them and posting them in writing where students can easily see them. In class discipline systems must be provided to parents in writing so that they are aware of classroom behavior expectations.

If a student violates a rule or rules repeatedly, or if a student is responsible for a severe violation, the teacher will refer the student to the school-wide discipline system. In doing so, the teacher must first attempt to stop the violation and then document the offending behavior in a report to

the Director of the school. The Director of the school will determine appropriate consequences for such violations.

Any student who is guilty of violating school or classroom rules shall be subject to punishment including, when appropriate, suspension or expulsion from school. In all disciplinary matters, students will be given notice and will have the opportunity to present their version of the facts and circumstances to the staff member imposing discipline. Early intervention, including solicitation of parental involvement, will be used consistently to avoid severe discipline problems. Parents will be notified of disruptive behavior and will be asked to meet with school staff so that parental instruction and example can support school policies.

Conduct that may result in severe discipline

Severe discipline, such as suspension or expulsion, may be imposed through the following procedures for conduct that threatens the integrity of the school community, including:

- Deliberate infliction of severe injury
- Deliberate creation of danger to others
- Repeated fighting, disruption, refusal to cooperate, harassment or other conduct injurious to other students or members of the school community
- Deliberate or repeated destruction or defacing of school property

Procedures for short term suspension

The Director may impose a short-term suspension of three days or less. Before imposing a short-term suspension, the Director shall inform the student verbally of the suspension, the reason or reasons for it, and whether it will be served in school or out of school. The student shall be given an opportunity to deny or explain the charges.

The Director shall also immediately notify the parent(s) or guardian(s) in writing that the student has been suspended from school. Written notice shall be provided by personal delivery, express mail or equivalent means reasonably calculated to assure receipt of such notice within 24 hours of suspension at the last known address. Notification also shall be made by telephone if the school has been provided with a contact telephone number for the parent(s) or guardian(s). Such notice shall provide a description of the incident or incidents that resulted in the suspension and shall offer parents or guardians an opportunity for an immediate informal conference with the CPCS representative who imposed the suspension. The notification and informal conference shall be in the dominant language used by the parent(s) or guardian(s). Interpreter(s) will be used as necessary to facilitate communication.

Procedures for long term suspension

The Director may impose a long-term suspension. Such a suspension may be imposed only after the student has been found guilty at a formal suspension hearing. In extreme circumstances, the Director may expel the student from school.

Upon determining that a student's action warrants a possible long-term suspension, the Director shall verbally inform the student that he or she is being suspended and is being considered for a long-term suspension (or expulsion) and state the reasons for such actions. The Director shall also immediately notify the student's parent (s) or guardian (s) in writing. Written notice shall be provided by personal delivery, express mail delivery, or equivalent means reasonably calculated to assure receipt of such notice within 24 hours of suspension at the last known address. Where possible, notification also shall be provided by telephone if the school has been provided with a contact telephone number of the parent(s) or guardians(s). Such notice shall provide a description of the incident or incidents that resulted in the suspension and shall indicate that a formal hearing will be held on the matter which may result in a long-term suspension (expulsion). Parents will be notified of and permitted to be present at suspension hearings concerning their children. Hearings will be scheduled with reasonable consideration for parents' schedule(s). The notification provided shall be in the dominant language used by the parent(s) or guardians(s). At the formal hearing, the student will have the right to be represented by counsel, question witnesses, and present evidence. Interpreter(s) will be used as necessary to facilitate communication.

If the suspension proceeding has been initiated by the Director, the Director shall personally hear and determine the proceeding or may, at his or her discretion, designate a hearing officer to conduct the hearing. The hearing officer's report shall be advisory only and the Director may accept or reject all or part of it. The Director's decision after the formal hearing to impose a long-term suspension or expulsion may be appealed first to the Board of Trustees, next to the chartering entity, and finally to the State Commission on Charter School.

Attachment III-19

19. CPCS Dress Code Policy

Students and Staff are expected to wear clean, presentable clothes to school. Clothes should be neat and comfortable.

Attachment III-20

20. CPCS Food Services

Because sound nutrition is necessary for healthy child development and for school success, CPCS will offer breakfast and lunch to all students each day.

To fund the provision of these food services, CPCS will participate in both the School Breakfast Program and the National School Lunch Program and will comply with the nutritional requirements of these programs. Students who partake of the meals and are not eligible for aid will be required to pay the unsubsidized portion for the cost of breakfast and lunch. We will also take advantage of "entitlement foods" by filing a Donated Commodity Agreement. It is expected that the revenues from these programs will offset much of the costs associated with providing food service. There is a two-year waiting period to become eligible for the higher subsidy rate, during which time we will gather data to show the economic make-up of our student body. After the two year waiting period, we anticipate that we will be able to prove our eligibility for higher federal subsidies as we anticipate that more than 60% of the students will qualify for free or reduced-price lunches. We will carefully track and maintain records of the eligibility of our students to qualify. The analysis below is indicative of the first year reflecting lower federal government subsidies at the under 60% rate. Additionally, costs will be offset by families, based on their ability to pay, as can also be seen from this analysis. Payment arrangements from families will comply with the income eligibility requirements established by the USDA.

CPCS will contract the provision of its food services to one of the following established and highly recommended food service providers:

- Aramark, Inc.
- Landmark, Inc.
- Sysco
- Monarch

Attachment III-21

21. CPCS Health Services

The **Community Partnership Charter School** will comply with all federal, state, and local regulations governing the provision of health care services for students and faculty. The **CPCS** staff will be trained in basic first aid, and necessary supplies and equipment will be available on **CPCS** premises at all times. Phone numbers for emergency services will be posted in all classrooms and in the **CPCS** main office. Emergency medical care will be provided by New York City emergency medical technicians. **CPCS** will comply in full with provisions regarding student immunization. With respect to physical health needs beyond basic first aid, it is intended that **CPCS** will develop a range of primary care services including annual physical check-ups, immunization, preventative care and nursing services. The design of the health services program will be coordinated through a partnership among the **CPCS** Board, the *Beginning with Children Foundation*, Columbia Teachers College School Psychology program and relevant departments and other physical and mental health care partners where appropriate. Formulation of this program is currently underway under the leadership of the *Beginning with Children Foundation* and Columbia Teachers College School Psychology Department. Initially, basic mental health and counseling needs will be served by school psychology interns and the Special Needs Coordinator of *BwCS*, subject to the needs of the **CPCS** student body.

In partnership with Columbia Teachers College School Psychology Department, **CPCS** will design a comprehensive school psychology/health program to be administered on site. This program is designed to be consistent with several philosophical principles:

The first is a **focus on the individual needs of each child**. A learning plan (LP) will be developed on site to address the special needs of each child in the school to support this approach, In addition and in compliance with the Federal Individuals with Disabilities Act and the New York State law for all children determined to have disabilities, Individual Educational Plans will also be developed by the Committee on Special Education in the local district. Columbia Teachers College School Psychology Doctoral candidates will partner with the **CPCS** and *BwCS* staff to implement a rigorous early assessment program designed to identify the educational, psychological and physical needs of each child. These professionals, and others where appropriate, will design and implement a team approach to assessment, early identification of potential difficulties, and subsequent curriculum intervention and staff development, to address identified individual needs. (see Appendix B and Attachment III-22)

A second underlying principle of the CPCS Health Program is a **focus on educational goals and progress**. The CPCS Health Program will address mental, physical, and emotional health, but will do so within the context of educational success. CPCS will develop a mutually reinforcing cycle of educational achievement as both motivating and rewarding factors in the attainment of good mental, physical and emotional health. The creation of this school-wide system will rely on participation from classroom teachers, Columbia Teachers College's psychology professionals, staff, children, and parents.

A third principle underlying the CPCS Health Program is **prevention**. By focusing on comprehensive and early assessment and subsequent curriculum and staff development, it is our hope to engage students, staff and families in early prevention of potential problems. This will be supported by learning plans, comprehensive student profiles, done on site in conjunction with the state mandated Individual Education Plans. Learning plans (LP's) developed at CPCS will be designed for all students, not limited to children traditionally classified as special education students. LP's will include a range of formal and informal assessments designed to delineate children's strengths and weaknesses and to develop appropriate strategies for meeting educational goals. LP data will necessarily include input from the relevant CPCS classroom teachers, reading specialists, a qualified school psychologist, a qualified social worker, and the child and his or her parents. The LP will be backed up by medical profiles that will be used to support educational interventions and treatments.

Attachment III-22

22. Students with Disabilities

CPCS will be open to all children and will not discriminate on the basis of race, creed, color, gender, national origin, religion, ancestry, need for special education services, intellectual or athletic ability, measures of achievement or aptitude, disability or proficiency in English. Based on experiences at the *Beginning with Children School*, we expect that approximately ten to twelve percent of CPCS may require special education services.

To the extent possible, CPCS will provide instruction to special needs students within the context of the regular classroom. This approach to curriculum development and implementation is based on the philosophy that all students benefit from learning with a diverse student population representing diverse needs. It is further based on the philosophy that isolating children with special needs stigmatizes them and is also harmful to their fellow students. Regular CPCS classroom teachers and specialists will be trained to address specific learning needs in areas such as basic reading skills, written expression, mathematics, oral expression, and written comprehension. Curricula for special needs students, whether implemented inside or outside the classroom, will be integrated with the regular classroom curricula and delivered in a manner consistent with the governing LPs and IEP's (see Appendix B and Attachment III-21).

CPCS will employ a preventative model to the greatest extent possible. Early assessment of all students will be a primary means of accomplishing this goal. Employing a variety of methods, both formal and informal, CPCS will seek to identify potential difficulties early, especially in the areas of language and reading skills. Assessment results will shape classroom instruction designed to meet the needs of individual students, including students with disabilities. School psychology and reading-specialist interns, externs, and field-studies students from Columbia Teachers College will support the assessment process as well as supporting the most prevalent special needs services throughout the early years of the school. Further support will be provided by the Special Needs Coordinator at the *Beginning with Children Foundation*, and by speech and language therapists contracted through the local school district or qualified Local Education Agency (LEA). As it becomes clear that certain services are needed to support the educational programs of a number of students at the school, these services will be incorporated into the regular school program and included in the annual budget.

Additional services that might be provided either by Columbia Teachers College School Psychology Program, Local Education Agencies, *Beginning with Children Foundation*, or through staff services at CPCS are:

- **Speech and language therapy**
- **Occupational therapy**
- **Special curriculum design, staff development, and therapeutic services for children with:**
- **Mental retardation**
- **Hearing Impairment, including deafness**
- **Visual Impairment, including blindness**
- **Serious emotional disturbance**
- **Orthopedic impairment**
- **Autism**
- **Traumatic brain injury**

The professionals and other relevant service providers who know and work with the child on a regular basis will employ a formalized team approach to ensure that each special-needs child's educational goals are met, consistent with the child's individual learning plan. This formalized team approach will involve the child's family to the greatest extent possible.

In compliance with the Federal Individuals with Disabilities Act and the New York State law for all children determined to have disabilities, the Committee on Special Education will develop IEPs in the local district. All IEPs and learning plans will be reviewed by a committee that will include:

- **The parent(s) or legal guardian(s) of the child**
- **At least one regular education teacher of the child**
- **A representative of CPCS who is:**
- **Qualified to provide or supervise the provision of instruction designed to meet the unique needs of children with disabilities**
- **Knowledgeable about the general curriculum and**
- **Knowledgeable about the availability of resources**

Determination of a disability will be undertaken using the following principles and procedures:

- Tests and other assessments tools will not be culturally or racially biased
- A variety of assessment tools and strategies will be used to gather relevant information about a child
- Tests will be selected to accurately reflect the factors the test purports to measure
- No single procedure will be used as the sole criterion for determining whether a child has a disability
- A child will be assessed in all areas related to the suspected disability, including health, vision, hearing, social and emotional status, general intelligence, academic performance, communicative status, and motor abilities
- Instruments will be used to assess the relative contribution of cognitive and behavioral factors

Attachment III-23

23. Strategies for Dealing with Students At Risk of Academic Failure

The CPCS school design is based upon the *Beginning with Children* strategy for dealing with students at risk of academic failure. This strategy seeks to build a strong foundation for academic achievement at the youngest age possible. For this reason CPCS seeks, eventually, to serve children beginning with Pre-K. After the initial years, and consistent with the *Beginning with Children* model, CPCS will grow each year by enrolling children in the Pre-K and Kindergarten grades and adding upper grades as the children progress.

Beginning early will not, in and of itself, ensure a solid academic foundation. It is expected that a proportion of students enrolled at CPCS may have limited prior exposure to educational experiences and materials. Thus, while most children entering CPCS will have the *ability* to perform to the same standards as other children, they may also need more practice and support during the school day to catch up to their peers in other schools. Ongoing assessment is critical in determining where children stand relative to educational standards that are appropriate for their age and grade level, and in determining the kind of instruction needed to meet CPCS's high academic standards. Special attention will be given to the skill areas of proficiency in oral and printed language and reading since these skills form the basis for academic achievement. CPCS curriculum and staff development will be focused on ensuring that teachers have the skills and the knowledge required to support children's needs in developing strong language and reading skills.

Although CPCS seeks to address risk of academic failure through prevention, for some students this will not suffice. When a teacher identifies significant difficulties, the special needs team will meet with the teacher and parents to develop a support plan for the student. At-risk students whose needs cannot be met within a regular school day will be required to participate in one of three programs, modeled after *BwCS* programs that have proven effective for students at risk of academic failure.

The first is the BwC extended day program. The extended day is a follow-up to the regular school day. It provides specific individualized plans for each student that reflect the students' specific needs and address concerns raised by their regular teachers. Ongoing consultations with regular day teachers ensure that the extended day program complements the daily curriculum. Extended-day staff members pursue regular curriculum objectives either by going into more detail or using a different approach. This individualized approach allows each child an opportunity to excel in his or her weak areas. Each child's extended day schedule will include academic and non-academic subject matter. Students receive tutoring in specific areas of

concern. The director of the program meets with each extended day teacher at least once a month to update the child's profile and schedule. Each child is assessed at the beginning, middle and end of the program to monitor his or her progress. The BwC program runs from 3 p.m.- 6 p.m., Mon- Fri. and is supported by interns and parent volunteers.

The second is the summer school program which extends the regular school year just as the extended day program builds on the regular school day. All enrolled children are assessed and individualized educational plans are developed for each of them. Students are presented with material that was difficult for them during the school year in a more detailed way or with a more focused approach. The program at BwC is held from 9 a.m.- 12 p.m. during the entire month of July.

The third is the mentoring program. Teachers at the *BwC School* have recognized that children, especially those in the upper grades, need reliable, adult role models outside of their families and the school. Many of the children in the BwC and CPCS target populations are from single parent homes, have behavioral issues, and are likely to benefit from mentor relationships as they reach puberty. BwC has developed a mentoring program for the 7th and 8th grades in response to these needs. The mentoring program is focused on educational-enrichment and relationship building. Mentors meet one-on-one with a child for a minimum of one school year to provide help with homework, school projects and areas of academic difficulty. Mentors also strive to build caring relationships with individual children based on friendship, support and positive role modeling. CPCS intends to replicate this mentor program for 7th and 8th graders, and may adapt it for younger children.

25.& 26. CPCS Academic Standards & Curriculum

The **Community Partnership Charter School** will be based on the *Beginning with Children* educational model. This is a model that responds to the real and immediate needs of the children it serves. It is based on the premise that all children can succeed--a premise that is both promoted and monitored via ongoing assessments of each child's abilities and skills in his or her progress toward academic success and social growth. The *BwCS* model fosters, through **high standards for students and staff alike**, high levels of knowledge and understanding in all critical subject areas. The most important aspect of the model is the provision of the intellectual tools and strategies for learning in children that foster success throughout adult life. Holding intellectual standards high for children and teachers, but allowing them to interact freely with each other in the attainment of those standards, has underpinned the success of the *Beginning with Children School*.

Teacher involvement at every level, including involvement in the design of the curriculum, is critical. In order for the educational program to be responsive to the needs of the children it serves, teachers must understand 1) how to assess children's needs, 2) how to adjust the curriculum to each child's needs, and 3) when they, themselves, need additional training to address the children's needs. Curricular success will depend heavily on our hiring practices, our teachers' qualifications, and teachers' ability to implement the curriculum to foster positive learning experiences and to set high expectations for success. A primary factor in the success of the model is the teachers' engagement with each child to create the best educational program for that child. Strictly proscribed curricula, designed either in the absence of the leadership or the practitioners responsible for it, determined either in terms of content or teaching strategies, will not work for this program.

We have, therefore, presented the **CPCS** educational program, in terms of combined standards and curriculum, with the **emphasis on standards rather than curriculum**. Our intention is to draw the standards of performance very clearly and precisely, while leaving room for input from the leadership and faculty of the school. In some cases, some level of proscribed content is appropriate (science and social studies). Certain courses of study are inextricably rule-bound (mathematics). But for many of the curricula, we find it most appropriate to set **high and specific standards of learning** while allowing the content to remain open (language arts, the fine arts). In these and many curricular areas, the more important learning mechanism is the interaction of the teacher and child around any of a number of topics important in the field. These topics

will be chosen and approved through the ongoing collaboration of the leadership, faculty, and Board of the **Community Partnership Charter School**.

The document below represents the best standards of *BwCS* as well as standards and best practices from other state systems as they are aligned with the New York State Standards. The curriculum will be implemented within the context of the **tripartite assessment/curriculum development/staff development model of the *BwCS*** (see Attachment 29 & 30). Individual assessments are administered from the time the children enter the school, and provide the basis for ongoing curriculum and staff development. Staff development is provided whenever a disparity exists between the students' performance and their attainment of the standards in question. As indicated above, while we have set rigorous **standards** for student success, we hope to have left room for teacher input and creativity into the **curriculum**.

Finally, **CPCS** students will learn skills and attain knowledge that has **real-life applications**. Students will learn by doing both within and outside the classroom. They will engage in community activities, projects, and partnerships. All curricula will be approached through **interdisciplinary links** as outlined in the body of the document's text. Students will understand that math exists in relation to music and history through dance, etc. **Diversity** will be a school, as well as, a community theme. Students will attend cultural festivals, do research projects in the community, and study conflict resolution. **Both community and parental involvement** will be fostered in all the children's experiences. They will visit museums, parks and corporations. Mentoring, tutoring and class visits will be encouraged through private and public partnerships. Children will also learn at home with their families. In addition to the traditional academic program, it will be the philosophical mission of the **CPCS** to foster **respect and responsibility** for fellow students, friends, family, community, in both the small and large sense of that word. These principles underlie the philosophical thrust of the curriculum and the academic mission of the school.

Standards & Curriculum

Table of Contents

- I. Mathematics pp. 53-83***
- II. Science pp. 84-98***
- III. Language Arts pp. 99-125***
- IV. Social Studies pp. 126-154***
- V. Computer Technology pp. 155-161***
- VI. Health & Home Economics pp. 162-167***
- VII. Physical Education pp. 168-172***
- VIII. The Arts pp. 173-193***
- IX. Non- English Language pp. 194-203***
- X. Occupational Cross-Content Standards pp. 204-207***

I. Mathematics¹

The curriculum is guided by the use of concrete manipulatives and interdisciplinary links so that students will see math exists everywhere in their daily lives. Students will use manipulatives to solve for unknowns in their immediate environments and will explore patterns in nature, art, music and literature. Whenever possible, real situations will guide the teacher's approach to the topic and the learning classroom will extend beyond the CPCS walls.

- I. Students will develop a sense of numbers.*
- II. Students will learn algebra and functions.*
- III. Students will master measurement and geometry.*
- IV. Students will learn statistics, data analysis and probability.*
- V. Students will become adept at mathematical reasoning.*

Kindergarten

- I. Students will develop a sense of numbers.*
 1. Students understand the relationship between numbers and quantities (i.e., that a set of objects has the same number of objects in different situations) regardless of its position or arrangement):
 - Compare two or more sets of objects (up to ten objects in each group) and identify which set is equal to, more than, or less than the other.
 - Count, recognize, represent, name, and order a number of objects (up to 50). Know that the larger numbers describe sets with more objects in them than the smaller numbers have.
 - Understand and describe simple additions and subtractions:
 - Use concrete objects to determine the answers to addition and subtraction problems (for two numbers that are each less than 10).

¹ Our math standards have been partially adapted from the California Standards of Curriculum and Assessment.

3. Students use estimation strategies in computation and problem solving that involve numbers that use the ones and tens places:

- Recognize when an estimate is reasonable.

II. Students will learn algebra and functions.

1. Students sort and classify objects:

- Identify, sort, and classify objects by attribute and identify objects that do not belong to a particular group (e.g., all these balls are green, those are red).

III. Students will master measurement and geometry.

1. Students understand the concept of time and units to measure it; they understand that objects have properties, such as length, weight, and capacity, and that comparisons may be made by referring to those properties:

- Compare the length, weight and capacity of objects by making direct comparisons with reference objects (e.g., note which object is shorter, longer, taller, lighter, heavier, or holds more).
- Demonstrate an understanding of concepts of time (e.g., morning, afternoon, evening, today, yesterday, tomorrow, week, year, months, seasons) and tools that measure time (e.g., clock, calendar, sundial).
- Name the days of the week.
- Identify the time (to the nearest hour) of everyday events (e.g., lunch time is 12 o'clock; bedtime is 8 o'clock at night).

2. Students identify common objects in their environment and describe the geometric features:

- Identify and describe common geometric objects (e.g., circle, triangle, square, rectangle, cube, sphere, cone).
- Compare familiar plane and solid objects by common attributes (e.g., position, shape, size, roundness, and number of corners).

IV. Students will learn statistics, data analysis and probability.

1. Students collect information about objects and events in their environment:

- Pose information questions; collect data; and record the results using objects, pictures, and picture graphs.
- Identify, describe, and extend simple patterns (such as circles or triangles) by referring to their shapes, sizes, or colors.

V. Students will become adept at mathematical reasoning.

1. Students make decisions about how to set up a problem.

- Determine the approach, materials, and strategies to be used.
 - Use tools and strategies, such as manipulatives or sketches, to model problems.
2. Students solve problems in reasonable ways and justify their reasoning:
- Explain the reasoning used with concrete objects and/or pictorial representations.
 - Make precise calculations and check the validity of the results in the context of the problem.
 - Can draw and begin writing problem-solving explanations.

Grade One

1. Students will develop a sense of numbers.

1. Students understand and use numbers up to 100:

- Count, read, and write whole numbers to 100.
- Compare and order whole numbers to 100 using the symbols for less than, equal to, or greater than (<, =, >).
- Represent equivalent forms of the same number through the use of physical models, diagrams, and number expressions (to 20) (e.g., 8 may be represented as $4+4$, $5+3$, $2+2+2+2$, $10-2$, $11-3$).
- Count and group object in ones and tens (e.g., three groups of 10 and 4 equals 34, or $30+4$).
- Identify and know the value of coins and show different combinations of coins that equal the same value.

2. Students demonstrate the meaning of addition and subtraction and use these operations to solve problems.

- Know the addition facts (sums to 20) and the corresponding subtraction facts and commit them to memory.
- Use the inverse relationship between addition and subtraction to solve problems.
- Identify one more than, one less than, 10 more than, and 10 less than a given number.
- Count by 2s, 5s, and 10s, to 100.
- Show the meaning of addition (putting together, increasing) and subtraction (taking away, comparing, finding the difference).
- Solve addition and subtraction problems with one- and two-digit numbers (e.g., $5 + 58 + \underline{\quad}$).
- Find the sum of three one-digit numbers.

3. Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, and hundreds places:

- Make reasonable estimates when comparing larger or smaller numbers.

II. Students will learn algebra and functions.

1. Students use number sentences with operational symbols and expressions to solve problems:

- Write and solve number sentences from problem situations that express relationships involving addition and subtraction.
- Understand the meaning of the symbols $+$, $-$, $=$.
- Create problem situations that might lead to given number sentences involving addition and subtraction.

III. Students will master measurement and geometry.

1. Students use direct comparison and nonstandard units to describe the measurements of objects:

- Compare the length, weight, and volume of two or more objects by using direct comparison or a nonstandard unit.
- Tell time to the nearest half-hour and relate time to events (e.g., before/after, and shorter/longer).

2. Students identify common geometric figures, classify them by common attributes, and describe their relative position or their location in space:

- Identify, describe, and compare triangles, rectangles, squares, and circles including the faces of three-dimensional objects.
- Classify familiar plane and solid objects by common attributes, such as color, position, shape, size, roundness, or number of corners, and explain which attributes are being used for classification.
- Give and follow directions about location.
- Arrange and describe objects in space by proximity, position, and direction (e.g., near, far, below, above, up, down, behind, in front of, next to, left or right of).

IV. Students will learn statistics, data analysis, and probability.

1. Students organize, represent, and compare data by category on simple graphs and charts:

- Sort objects and data by common attributes and describe the categories.
- Represent and compare data (e.g., largest, smallest, most often, and least often) by using pictures, bar graphs, tally charts, and picture graphs.

2. Understand and create and describe patterns by numbers, shapes, sizes, rhythms, or colors:

- Describe, extend, and explain ways to get to a next element in simple repeating patterns (e.g. rhythmic, numeric, color, and shape).

V. *Students become adept at mathematical reasoning.*

1. Students make decisions about how to set up a problem:

- Determine the approach, materials, and strategies to be used.
- Use tools, such as manipulatives or sketches, to model problems.
- Explain the reasoning used and justify the procedures selected.
- Make precise calculations and check the validity of the results from the context of the problem.
- Students note connections between one problem and another.
- Students can create pictorial and written representations of the problem-solving process.

Grade Two

I. *Students will develop a sense of numbers.*

1. Students understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000:
 - Count, read, and write whole numbers to 1,000 and identify the place value for each digit.
 - Use words, models, and expanded forms (e.g., $45 = 4 \text{ tens} + 5$) to represent numbers (to 1,000).
 - Order and compare whole numbers to 1,000 by using the symbols $<, +, >$.
2. Students estimate, calculate, and solve problems involving addition and subtraction of two- and three-digit number:
 - Understand and use the inverse relationship between addition and subtraction (e.g., an opposite number sentence for $8+6=14$ is $14-6=8$) to solve problems and check solutions.
 - Find the sum or difference of two whole numbers up to three digits long.
 - Use mental arithmetic to find the sum or difference of two two-digit numbers.
3. Students model and solve simple problems involving multiplication and division:
 - Use repeated addition, arrays, and counting by multiples to do multiplication.
 - Use repeated subtraction, equal sharing, and forming equal groups with remainders to do division.
 - Know the multiplication tables of 2s, 5s, and 10s (to "times 10") and commit them to memory.

1. Students understand that fractions and decimals may refer to parts of a set and parts of a whole:
 - Recognize, name, and compare unit fractions from $1/12$ to $1/2$.
 - Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two thirds of 15 balls).
 - Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.
2. Students model and solve problems by representing, adding, and subtracting amounts of money:
 - Solve problems using combinations of coins and bills.
 - Know and use the decimal notation and the dollar and cent symbols for money.
3. Students use estimation strategies in computation and problem solving that involve numbers that use the ones, tens, hundreds, and thousands places:
 - Recognize when an estimate is reasonable in measurements (e.g., closest inch).

II. Students will learn algebra and its functions.

1. Students model, represent, and interpret number relationships to create and solve problems involving addition and subtraction:
 - Use the commutative and associative rules to simplify mental calculations and to check results.
 - Relate problem situations to number sentences involving addition and subtraction.
 - Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.

III. Students will master measurement and geometry.

1. Students understand that measurement is accomplished by identifying a unit of measure, iterating (repeating) that unit, and comparing it to the item to be measured:
 - Measure the length of objects by iterating (repeating) a nonstandard or standard unit.
 - Use different units to measure the same object and predict whether the measure will be greater or smaller when a different unit is used.
 - Measure the length of an object to the nearest inch and/or centimeter.
 - Tell time to the nearest quarter hour and know relationships of time (e.g., minutes in an hour, days in a month, weeks in a year).

- Determine the duration of intervals of time in hours (e.g., 11:00 a.m. to 4:00 p.m.).
2. Students identify and describe the attributes of common figures in the plane and of common objects in space:
- Describe and classify plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, and rectangular prism) according to the number and shape of faces, edges, and vertices.
 - Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).

IV. Students will learn statistics, data analysis, and probability.

1. Students collect numerical data and record, organize, display, and interpret the data on bar graphs and other representations:

- Record numerical data in systematic ways, keeping track of what has been counted.
- Represent the same data set in more than one way (e.g., bar graphs and charts with tallies).
- Identify features of data sets (range and mode).
- Ask and answer simple questions related to data representations.

V. Students will become adept at mathematical reasoning.

1. Students demonstrate an understanding of patterns and how patterns grow and describe them in general ways:

- Recognize, describe, and extend patterns and determine a next term in linear patterns (e.g., 4, 8, 12; the number of ears on one horse, two horses, three horses, four horses).
- Solve problems involving simple number patterns.

2. Students make decisions about how to set up a problem:

- Determine the approach, materials, and strategies to be used.
- Use tools, such as manipulatives or sketches, to model problems.

3. Students note connections between one problem and another.

4. Students are able to use written explanations and graphic representations to describe problem-solving process for grade-level problems.

Grade Three*I. Students will develop a sense of numbers.*

1. Students understand the place value of whole numbers:

- Count, read, and write whole numbers to 10,000.
- Compare and order whole numbers to 10,000.
- Identify the place value for each digit in numbers to 10,000.
- Round off numbers to 10,000 to the nearest ten, hundred, and thousand.
- Use expanded notation to represent numbers (e.g., $3,206 = 3,000 + 200 + 6$).

2. Students calculate and solve problems involving addition, subtraction, multiplication, and division:

- Find the sum or difference of two whole numbers between 0 and 10,000.
- Memorize to automaticity the multiplication table for numbers between 1 and 10.
- Use the inverse relationship of multiplication and division to compute and check results.
- Solve simple problems involving multiplication of multidigit numbers by one-digit numbers ($3,671 \times 3 = \underline{\quad}$).
- Solve division problems in which a multidigit number is evenly divided by a one-digit number ($135/5 = \underline{\quad}$).
- Understand the special properties of 0 and 1 in multiplication and division.
- Determine the unit cost when given the total cost and number of units.
- Solve problems that require two or more of the skills mentioned above.

3. Students understand the relationship between whole numbers, simple fractions, and decimals:

- Compare fractions represented by drawings or concrete materials to show equivalency and to add and subtract simple fractions in context (e.g., $1/2$ of a pizza is the same amount as $2/4$ of another pizza that is the same size; show that $3/8$ is larger than $1/4$).
- Add and subtract simple fractions (e.g., determine that $1/8 + 3/8$ is the same as $1/2$).
- Solve problems involving addition, subtraction, multiplication, and division of money amounts in decimal notation and multiply and divide money amounts in decimal notation by using whole-number multipliers and divisors.
- Know and understand that fractions and decimals are two different representations of the same concept (e.g., 50 cents is $1/2$ of a dollar, 75 cents is $3/4$ of a dollar).

II. *Students will learn algebra and functions.*

1. Students select appropriate symbols, operations, and properties to represent, describe, simplify, and solve simple number relationships:

- Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities.
- Solve problems involving numeric equations or inequalities.
- Select appropriate operational and relational symbols to make an expression true (e.g., if $4_3 = 12$, what operational symbol goes in the blank?)
- Express simple unit conversions in symbolic form (e.g., $_\text{inches} = _\text{feet} \times 12$).
- Recognize and use the commutative and associative properties of multiplication (e.g., if $5 \times 7 = 35$, then what is 7×5 ? and if $5 \times 7 \times 3 = 105$, then what is $7 \times 3 \times 5$?).

2. Students represent simple functional relationships:

- Solve simple problems involving a functional relationship between two quantities (e.g., find the total cost of multiple items given the cost per unit).
- Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).

III. *Students will master measurement and geometry.*

1. Students choose and use appropriate units and measurement tools to quantify the properties of objects:

- Choose the appropriate tools and units (metric and U.S.) and estimate and measure the temperature, length, liquid volume, and weight/mass of given objects.
- Understand that measurement is approximate, never a fact.
- Estimate or determine the area and volume of solid figures by covering them with squares or by counting the number of cubes that would fill them.
- Find the perimeter of a polygon with integer sides.
- Carry out simple unit conversions within a system of measurement (e.g., centimeters and meters, hours, and minutes).

2. Students describe and compare the attributes of plane and solid geometric figures and use their understanding to show relationships and solve problems:

- Identify, describe, and classify polygons (including pentagons, hexagons, and octagons).
- Identify attributes of triangles (e.g., two equal sides for the isosceles triangle)

- Identify attributes of quadrilaterals (e.g., parallel sides for the parallelogram, right angles for the rectangle, equal sides and right angles for the square).
- Identify right angles in geometric figures or in appropriate objects and determine whether other angles are greater or less than a right angle.
- Identify, describe, and classify common three-dimensional geometric objects (e.g., cube, rectangular solid, sphere, prism, pyramid, cone, and cylinder).
- Identify common solid objects that are the components needed to make a more complex solid object.

IV. Students will learn statistics, data analysis and probability.

1. Students conduct simple probability experiments by determining the number of possible outcomes and make simple predictions:

- Identify whether common events are certain, likely, unlikely, or improbable.
- Record the possible outcomes for a simple event (e.g., tossing a coin) and systematically keep track of the outcomes when the event is repeated many times.
- Summarize and display the results of probability experiments in a clear and organized way (e.g., use a bar graph or a line plot).
- Use the results of probability experiments to predict future events (e.g., use a line plot to predict the temperature forecast for the next day).

V. Students will become adept at mathematical reasoning.

1. Students make decisions about how to approach problems:

- Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.
- Determine when and how to break a problem into simpler parts.

2. Students use strategies, skills, and concepts in finding solutions:

- Use estimation to verify the reasonableness of calculated results.
- Apply strategies and results from simpler problems to more complex problems.
- Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
- Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
- Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.

- Make precise calculations and check the validity of the results from the context of the problem.
3. Students move beyond a particular problem by generalizing to other situations:
 - Evaluate the reasonableness of the solution in the context of the original situation.
 - Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
 - Develop generalizations of the results obtained and apply them in other circumstances.
 4. Students are able to use written explanations and graphic representations to describe problem-solving process for grade-level problems.

Grade Four

1. *Students will develop a sense of numbers.*
 1. Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concept of negative numbers:
 - Read and write whole numbers in the millions.
 - Order and compare whole numbers and decimals to two decimal places.
 - Round whole numbers through the millions to the nearest ten, hundred, thousand, ten thousand, or hundred thousand.
 - Decide when a rounded solution is called for and explain why such a solution may be appropriate.
 - Explain the different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers; explain equivalents of fractions.
 - Write tenths and hundredths in decimal and fraction notations and know the fraction and decimal equivalents of fractions (e.g. .50 or $.5 = 1/2$)
 - Write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to a simple decimal on a number line.
 - Use concepts of negative numbers (e.g. on a number line, in counting, in temperature, in “owning”).
 - Identify on a number line the relative position of positive fractions, positive mixed numbers and positive decimals to two decimal places.
 2. Students extend their use of understanding of whole numbers to the addition and subtraction of simple decimals:

- Estimate and compute the sum or difference of whole numbers and positive decimals to two places.
 - Round two-place decimals to one decimal or the nearest whole number and judge the reasonableness of the rounded answer.
3. Students solve problems involving addition, subtraction, multiplication, and division of whole numbers and understand the relationships among the operations:
- Demonstrate an understanding of, and the ability to use standard algorithms for the addition and subtraction of multidigit numbers.
 - Demonstrate an understanding of, and the ability to use, standard algorithms for multiplying a multidigit number by a two-digit number and for dividing a multidigit number by a one-digit number; use relationships between them to simplify computations and to check results.
 - Solve problems involving multiplication of multidigit numbers by two-digit numbers.
 - Solve problems involving division of multidigit numbers by one-digit numbers.
4. Students know how to factor small whole numbers:
- Understand that many whole numbers break down in different ways. (Factoring)
 - Know that numbers such as 2,3,5,7, and 11 do not have any factors except 1 and themselves and that such numbers are called prime numbers.

II. Students will learn algebra and functions.

1. Students use and interpret variables, mathematical symbols, and properties to write and simplify expressions and sentences:
- Use letters, boxes, or other symbols to stand for any number in simple expressions or equations.
 - Interpret and evaluate mathematical expressions that now use parentheses.
 - Use parentheses to indicate which operation to perform first when writing expressions containing more than two terms and different operations.
 - Use and interpret formulas to answer questions about quantities and their relationships.
2. Students know how to manipulate equations:
- Know and understand that equals added to equals are equal.
 - Know and understand that equals multiplied by equals are equals.

III. Students will master measurement and geometry.

1. Students understand perimeter and area.

- Measure the area of a rectangular shape by using appropriate units, such as square centimeter, square meter, square kilometer, square inch, square yard or square mile.
 - Recognize that rectangles that have the same area can have different perimeters.
 - Understand that rectangles that have the same perimeter can have different areas.
 - Understand and use formulas to solve problems involving perimeters and areas of rectangles and squares. Use those formulas to find the areas of more complex figures by dividing the figures into basic shapes.
2. Students use two-dimensional coordinate grids to represent points and graph lines and simple figures:
- Draw the points corresponding to linear relationships on graph paper. (E.g. draw 10 points on a graph of the equation $y=3x$ and connect them by using a straight line).
 - Understand that the length of a horizontal line segment equals the difference of the x-coordinates.
 - Understand that the length of a vertical line segment equals the difference of the y-coordinates.
3. Students demonstrate an understanding of the plane and solid geometric objects and use this knowledge to show relationships and solve problems:
- Identify the lines that are parallel and perpendicular.
 - Identify the radius and diameter of a circle.
 - Identify congruent figures.
 - Identify figures that have bilateral and rotational symmetry.
 - Know the definitions of a right angle, an acute angle and an obtuse angle. Understand that 90, 180, 270 and 360 degrees, respectively, with $_$, $_$, $_$, and full turns.
 - Visualize, describe, and make models, of geometric solids in terms of the number and shape of faces, edges and vertices; interpret two-dimensional representations of three-dimensional objects; and draw patterns (of faces) for a solid, that, when cut and folded, will make a model of the solid.
 - Know the definitions of different quadrilaterals.

IV. *Students will learn statistics, data analysis, and probability.*

1. Students organize, represent, and interpret numerical and categorical data and clearly communicate their findings:

- Formulate survey questions; systemically collect and represent data on a number line; and coordinate graphs, tables, and charts.
 - Identify the mode(s) for sets of categorical data and the mode(s), median, and any apparent outliers for numerical data sets.
 - Interpret one-and two-variable data graphs to answer questions about a situation.
2. Students make predictions for simple probability situations:
- Represent all possible outcomes for a simple probability situation in an organized way (e.g. tables, grids, tree diagrams).
 - Express outcomes of experimental probability situations verbally and numerically (e.g.3 out of 4).
- V. *Students will become adept at mathematical reasoning.*
1. Students make decisions about how to approach problems:
- Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.
 - Determine when and how to break a problem into simpler parts.
 - Use variables such as height, weight, and hand size to predict changes over time
2. Students use strategies, skills, and concepts in finding solutions:
- Use estimation to verify the reasonableness of calculated results.
 - Apply strategies and results from simpler problems to more complex problems.
 - Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
3. Students move beyond a particular problem by generalizing to other situations:
- Evaluate the reasonableness of the solution in the context of the original situation.
 - Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
 - Develop generalizations of the results obtained and apply them in other circumstances.
4. Students are able to use detailed written explanations and graphic representations to describe problem-solving process for grade-level problems.

Grade Five***I. Students will develop a sense of numbers.***

1. Students compute with very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents.

They understand the relative magnitudes of numbers:

- Estimate, round, and manipulate very large (e.g., millions) and very small (e.g., thousandths) numbers.
- Interpret percents as a part of a hundred; find decimal and percent equivalents for common fractions and explain why they represent the same value; compute a given percent of a whole number.
- Understand and compute positive integer powers of nonnegative integers; compute examples as repeated multiplication.
- Determine the prime factors of all numbers through 50 and write the numbers as the product of their prime factors by using exponents to show multiples of a factor (e.g., $24=2 \times 2 \times 2 \times 3 = 2(3) \times 3$).
- Identify and represent on a number line decimals, fractions, mixed numbers, and positive and negative integers.

2. Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

- Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers; and verify the reasonableness of the results.
- Demonstrate proficiency with division, including division with positive decimals and long division with multidigit divisors.
- Solve simple problems, including ones arising in concrete situations, involving the addition and subtraction of fractions and mixed numbers (like and unlike denominators of 20 or less), and express answers in the simplest form.
- Understand the concept of multiplication and division of fractions.
- Compute and perform simple multiplication and division of fractions and apply these procedures to solving problems.

II. Students will learn algebra and functions.

1. Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

- Use information taken from a graph or equation to answer questions about a problem situation.

- Use a letter to represent an unknown number; write and evaluate simple algebraic expressions in one variable by substitution.
- Know and use the distributive property in equations and expressions with variables.
- Identify and graph ordered pairs in the four quadrants of the coordinate plane.
- Solve problems involving linear functions with integer values; write the equation; and graph the resulting ordered pairs of integers on a grid.

III. *Students will master measurement and geometry.*

1. Students understand and compute the volumes and areas of simple objects:

- Derive and use the formula for the area of a triangle and of a parallelogram by comparing it with the formula for the area of a rectangle (i.e., two of the same triangles make a parallelogram with twice the area; a parallelogram is compared with a rectangle of the same area by cutting and pasting a right triangle on the parallelogram).
- Construct a cube and rectangular box from two-dimensional patterns and use these patterns to compute the surface area for these objects.
- Understand the concept of volume and use the appropriate units in common measuring systems (i.e., cubic centimeter [cm³], cubic meter [m³], cubic inch [in³], cubic yard [yd³]) to compute the volume of rectangular solids
- Differentiate between, and use appropriate units of measures for, two- and three-dimensional objects (i.e., find the perimeter, area, and volume).

2. Students identify, describe, and classify the properties of, and the relationships between, plane and solid geometric figures:

- Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, and triangles by using appropriate tools (e.g., straightedge, ruler, compass, protractor, drawing software).
- Know that the sum of the angles of any triangle is 180 degrees and the sum of the angles of any quadrilateral is 360 degrees and use this information to solve problems.
- Visualize and draw two-dimensional views of three-dimensional objects made from rectangular solids.

IV. *Students will learn statistics, data analysis and probability.*

1. Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

- Know the concepts of mean, median, and mode; compute and compare simple examples to show that they may differ.

- Organize and display single-variable data in appropriate graphs and representations (e.g., histogram, circle, and graphs) and explain which types of graphs are appropriate for various data sets.
- Use fractions and percentages to compare data sets of different sizes.
- Identify ordered pairs of data from a graph and interpret the meaning of the data in terms of the situation depicted by the graph.
- Know how to write ordered pairs correctly; for example, (x,y) .

V. Students will become adept at mathematical reasoning.

1. Students make decisions about how to approach problems:

- Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.
- Determine when and how to break a problem into simpler parts.
- Use maps and scale drawings to represent real objects or places
- Use concrete materials and diagrams to describe the operation of real world processes and systems

2. Students use strategies, skills, and concepts in finding solutions:

- Use estimation to verify the reasonableness of calculated results.
- Apply strategies and results from simpler problems to more complex problems.
- Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
- Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
- Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.
- Make precise calculations and check the validity of the results from the context of the problem.

3. Students move beyond a particular problem by generalizing to other situations:

- Evaluate the reasonableness of the solution in the context of the original situation.
- Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
- Develop generalizations of the results obtained and apply them in other circumstances.

4. Students are able to use detailed written explanations and graphic representations to describe problem-solving process for grade-level problems and justify their answers to others.

Grade Six

I. Students will develop a sense of numbers.

1. Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages.
 - Compare and order positive and negative fractions, decimals, and mixed numbers and place them on a number line.
 - Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations (a/b , a to b , a/b).
 - Use proportions to solve problems (e.g., determine the value of N if $4/7 = N/21$, find the length of a side of a polygon similar to a known polygon). Use cross-multiplication as a method for solving such problems, understanding it as the multiplication of both sides of an equation by a multiplicative inverse.
 - Calculate given percentages of quantities and solve problems involving discounts at sales, interest earned, and tips.
2. Students calculate and solve problems involving addition, subtraction, multiplication, division:
 - Solve problems involving addition, subtraction, multiplication, and division of positive fractions and explain why a particular operation was used for a given situation.
 - Explain the meaning of multiplication and division of positive fractions and perform the calculations (e.g., $5/8$ divided by $15/16 = 16/15 = 2/3$).
 - Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.
 - Determine the least common multiple and the greatest common divisor of whole numbers; use them to solve problems with fractions (e.g., to find a common denominator to add two fractions or to find the reduced form for a fraction).

II. Students will learn algebra and functions.

1. Students write verbal expressions and sentences as algebraic expressions and equations; they evaluate algebraic expressions, solve simple linear equations, and graph and interpret their results:
 - Write and solve one-step linear equations in one variable.
 - Write and evaluate an algebraic expression for a given situation, using up to three variables.
 - Apply properties to evaluate expressions; and justify each step in the process.
 - Solve problems manually by using the correct order of operations or by using a scientific calculator.
2. Students analyze and use tables, graphs, and rules to solve problems involving rates and proportions:
 - Convert one unit of measurement to another (e.g., from feet to miles, from centimeters to inches).
 - Demonstrate an understanding that rate is a measure of one quantity per unit value of another quantity.
 - Solve problems involving rates, average speed, distance, and time.
3. Students investigate geometric patterns and describe them algebraically:
 - Use variables in expressions describing geometric quantities (e.g., $P = 2W + 2l$, $A = \frac{1}{2}bh$, $C = \pi d$ —the formulas for the perimeter of a rectangle, the area of a triangle, and the circumference of a circle, respectively).
 - Express in symbolic form simple relationships arising from geometry.

III. *Students will master measurement and geometry.*

1. Students deepen their understanding of the measurement of plane and solid shapes and use this understanding to solve problems:
 - Understand the concept of a constant such as π ; know the formulas for the circumference and area of a circle.
 - Know common estimates of π ($\frac{22}{7}$) and use these values to estimate and calculate the circumference and the area of circles; compare with actual measurements.
 - Know and use the formulas for the volume of triangle prisms and cylinders (area of base \times height); compare these formulas and explain the similarity between them and the formula for the volume of a rectangular solid.
2. Students identify and describe the properties of two-dimensional figures:
 - Identify angles as vertical, adjacent, complementary, or supplementary and provide descriptions of these terms.
 - Use the properties of the complementary and supplementary angles and the sum of the angles of a triangle to solve problems involving an unknown angle.

- Draw quadrilaterals and triangles from given information about them (e.g., a quadrilateral having equal sides but no right angles, a right isosceles triangle).

IV. Students will learn statistics, data analysis, and probability.

1. Compute the range, mean, median, and mode of data sets.
 - Understand how additional data added to data sets may affect these computations of measures of central tendency.
 - Understand how the inclusion or exclusion of outliers affects measures of central tendency.
 - Know why a specific measure of central tendency (mean, median, and mode) provides the most useful information in a given context.
2. Students use data samples of a population and describe the characteristics and limitations of the samples:
 - Compare different samples of a population with the data from the entire population and identify a situation in which it makes sense to use a sample.
 - Identify different ways of selecting a sample (e.g., convenience sampling, responses to a survey, random sampling) and which method makes a sample more representative for a population.
 - Analyze data displays and explain why the way in which the question was asked might have influenced the results obtained and why the way in which the results were displayed might have influenced the conclusions reached.
 - Identify data that represent sampling errors and explain why the sample (and the display) might be biased.
 - Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims.
3. Students determine theoretical and experimental probabilities and use these to make predictions about events:
 - Represent all possible outcomes for compound events in an organized way (e.g., tables, grids, tree diagrams) and express the theoretical probability of each outcome.
 - Use data to estimate the probability of future events (e.g., batting averages or number of accidents per mile driven).
 - Represent probabilities as ratios, proportions, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable; know that if P is the probability of an event, $1-P$ is the probability of an event not occurring.
 - Understand that the probability of either of two disjoint events occurring is the sum of the two individual probabilities and that the probability of one event

following another, in independent trials, is the product of the two probabilities.

- Understand the difference between independent and dependent events.

V. *Students become adept at mathematical reasoning.*

1. Students make decisions about how to approach problems:

- Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
- Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.
- Determine when and how to break a problem into simpler parts.

2. Students use strategies, skills, and concepts in finding solutions:

- Use estimation to verify the reasonableness of calculated results.
- Apply strategies and results from simpler problems to more complex problems.
- Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.

3. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

- Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
- Indicate the relative advantages of exact and approximate solutions with evidence in both verbal and symbolic work.
- Make precise calculation and check the validity of the results from the context of the problem.

4. Students move beyond a particular problem by generalizing to other situations:

- Evaluate the reasonableness of the solution in the context of the original situation.
- Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
- Develop generalizations of the results obtained and the strategies used and apply them in new problem situations.

5. Students are able to use detailed written explanations and graphic representations to describe problem-solving process for grade-level problems and justify their answers to others.

Grade Seven***I. Students will develop a sense of numbers.***

1. Students know the properties of, and compute with, rational numbers expressed in a variety of forms:

- Read, write, and compare rational numbers in scientific notation (positive and negative powers of 10) with approximate numbers using scientific notation.
- Add, subtract, multiply, and divide rational numbers (integers, fractions, and terminating decimals) and take positive rational numbers to whole-number powers.
- Convert fractions to decimals and percents and use these representations in estimations, computations, and applications.
- Differentiate between rational and irrational numbers.
- Know that every rational number is either a terminating or repeating decimal and be able to convert terminating decimals into reduced fractions.
- Calculate the percentage of increases and decreases of a quantity.
- Solve problems that involve discounts, markups, commissions, and profit and compute simple and compound interest.

2. Students use exponents, powers, and roots and use exponents in working with fractions:

- Understand negative whole-number exponents. Multiply and divide expressions involving exponents with a common base.
- Add and subtract fractions by using factoring to find common denominators.
- Multiply, divide, and simplify rational numbers by using exponent rules.
- Use the inverse relationship between raising to a power and extracting the root of a perfect square integer; for an integer that is not square, determine without a calculator the two integers between which its square root lies and explain why.
- Understand the meaning of the absolute value of a number; interpret the absolute value as the distance of the number from zero on a number line; and determine the absolute value of real numbers.

II. Students will learn algebra and functions.

1. Students express quantitative relationships by using algebraic terminology, expressions, equations, inequalities, and graphs:

- Use variables and appropriate operations to write an expression, an equation, an inequality, or a system of equations or inequalities that represents a verbal description

(e.g., three less than a number, half as large as area A).

- Use the correct order of operations to evaluate algebraic expressions such as $3(2x + 5)^2$.
- Simplify numerical expressions by applying properties of rational numbers (e.g., identity, inverse, distributive, associative, commutative) and justify the process used.
- Use algebraic terminology (e.g., variable, equation, term, coefficient, inequality, expression, constant) correctly.
- Represent quantitative relationships graphically and interpret the meaning of a specific part of a graph in the situation represented by the graph.

2. Students interpret and evaluate expressions involving integer powers and simple roots:

- Interpret positive whole-number powers as repeated multiplication and negative whole-number powers as repeated division or multiplication by the multiplicative inverse. Simplify and evaluate expressions that include exponents.
- Multiply and divide monomials; extend the process of taking powers and extracting roots to monomials when the latter results in a monomial with an integer exponent.

3. Students graph and interpret linear and some nonlinear functions:

- Graph functions of the form $y = nx^2$ and $y = nx^3$ and use in solving problems.
- Plot the values from the volumes of three-dimensional shapes for various values of the edge lengths (e.g., cubes with varying edge lengths or a triangle prism with a fixed height and an equilateral triangle base of varying lengths).
- Graph linear functions, noting that the vertical change (change in y-value) per unit of horizontal change (change in x-value) is always the same and know that the ratio (“rise over run”) is called the slope of a graph.
- Plot the values of quantities whose ratios are always the same (e.g., cost to the number of an item, feet to inches, circumference to diameter of a circle). Fit a line to the plot and understand that the slope of the line equals the quantities.

4. Students solve simple linear equations and inequalities over the rational numbers:

- Solve two-step linear equations and inequalities in one variable over the rational numbers, interpret the solution or solutions in the context from which they arose, and verify the reasonableness of the results.
- Solve multistep problems involving rate, average speed, distance, and time or a direct variation.

III. Students will master measurement and geometry.

1. Students choose appropriate units of measure and use ratios to convert within and between measurement systems to solve problems:

- Compare weights, capacities, geometric measures, times, and temperatures within and between measurement systems (e.g., miles per hour and feet per second, cubic inches to cubic centimeters).
- Construct and read drawings and models made to scale.
- Use measures expressed as rates (e.g., speed, density) and measures expressed as products (e.g., person-days) to solve problems; check the units of the solutions; and use dimensional analysis to check the reasonableness of the answer.

2. Students compute the perimeter, area, and volume of common geometric objects and use the results to find measures of less common objects. They know how perimeter, area, and volume are affected by changes of scale:

- Use formulas routinely for finding the perimeter and area of basic two-dimensional figures and the surface area and volume of basic three-dimensional figures, including rectangles, parallelograms, trapezoids, squares, triangles, circles, prisms, and cylinders.
- Estimate and compute the area of more complex or irregular two- and three-dimensional figures by breaking the figures down into more basic geometric objects.
- Compute the length of the perimeter, the surface area of the faces, and the volume of a three-dimensional object built from rectangular solids. Understand that when the lengths of all dimensions are multiplied by a scale factor, the surface area is multiplied by the square of the scale factor and the volume is multiplied by the cube of the scale factor.
- Relate the changes in measurement with a change of scale to the units used (e.g., square inches, cubic feet) and to conversions between units (1 square foot = 144 square inches or $[1 \text{ ft }^2] = [144 \text{ in }^2]$, 1 cubic inch is approximately 16.38 cubic centimeters or $[1 \text{ in }^3] = [16.38 \text{ cm }^3]$).

3. Students know the Pythagorean theorem and deepen their understanding of plane and solid geometric shapes by constructing figures that meet given conditions and by identifying attributes of figures:

- Identify and construct basic elements of geometric figures (e.g., altitudes, midpoints, diagonals, angle bisectors, and perpendicular bisectors; central angles, radii, diameters, and chords of circles) by using a compass and straightedge.

- Understand and use coordinate graphs to plot simple figures, determine lengths and areas related to them, and determine their image under translations and reflections.
- Know and understand the Pythagorean theorem and its converse and use it to find the length of the missing side of a right triangle and the lengths of other line segments and, in some situations, empirically verify the Pythagorean theorem by direct measurement.
- Demonstrate an understanding of conditions that indicate two geometrical figures are congruent and what congruence means about the relationships between the sides and angles of the two figures.
- Construct two-dimensional patterns for three-dimensional models, such as cylinders, prisms, and cones.
- Identify elements of three-dimensional geometric objects (e.g., diagonals of rectangular solids) and describe how two or more objects are related in space (e.g., skew lines, the possible ways three planes might intersect).

IV. Student will learn statistics, data analysis, and probability.

1. Students collect, organize, and represent data sets that have one or more variables and identify relationships among variables within a data set by hand and through the use of an electronic spreadsheet software program:

- Know various forms of display for data sets, including a stem-and-leaf plot or box-and whisker plot; use the forms to display a single set of data or to compare two sets of data.
- Represent two numerical variables on a scatterplot and informally describe how the data points are distributed and any apparent relationship that exists between the two variables (e.g., between time spent on homework and grade level).
- Understand the meaning of, and be able to compute, the minimum, the lower quartile, the median, the upper quartile, and the maximum of a data set.

V. *Students will become adept at mathematical reasoning.*

1. Students make decisions about how to approach problems:

- Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
- Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.
- Determine when and how to break a problem into simpler parts.

2. Students use strategies, skills, and concepts in finding solutions:

- Use estimation to verify the reasonableness of calculated results.
- Apply strategies and results from simpler problems to more complex problems.
- Estimate unknown quantities graphically and solve for them by using logical reasoning and arithmetic and algebraic techniques.
- Make and test conjectures by using both inductive and deductive reasoning.
- Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
- Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
- Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.
- Make precise calculations and check the validity of the results from the context of the problem.

3. Students determine a solution is complete and move beyond a particular problem by generalizing to other situations:

- Evaluate the reasonableness of the solution in the context of the original situation.
- Note the method of deriving the solution and demonstrate a conceptual understanding of the derivation by solving similar problems.
- Develop generalizations of the results obtained and the strategies used and apply them to new problem situations.

4. Students are able to use detailed written explanations and graphic representations to describe problem-solving process for grade-level problems and justify their answers to others.

Grade Eight

1. Algebra I

Symbolic reasoning and calculations with symbols are central in algebra. Through the study of algebra, a student develops an understanding of the symbolic language of mathematics and the sciences. In addition, algebraic skills and concepts are developed and used in a wide variety of problem-solving situations.

- Students identify and use the arithmetic properties of subsets of integers and rational, irrational, and real numbers, including closure properties for the four basic arithmetic operations where applicable:

- Students use properties of numbers to demonstrate whether assertions are true or false.
- Students understand and use such operations as taking the opposite, finding the reciprocal, taking a root, and raising to a fractional power. They understand and use the rules of exponents.
- Students solve equations and inequalities involving absolute values.
- Students simplify expressions before solving linear equations and inequalities in one variable, such as $3(2x-5) + 4(x-2) = 12$.
- Students solve multi-step problems, including word problems, involving linear equations and linear inequalities in one variable and provide justification for each step.
- Students graph a linear equation and compute the x- and y-intercepts (e.g., graph $2x + 6y = 4$). They are also able to sketch the region defined by linear inequality (e.g., they sketch the region defined by $2x + 6y < 4$).
- Students verify that a point lies on a line, given an equation of the line. Students are able to derive linear equations by using the point-slope formula.

2. Geometry

The geometry skills and concepts developed in this discipline are useful to all students. Aside from learning these skills and concepts, students will develop their ability to construct formal, logical arguments and proofs in geometric settings and problems.

- Students demonstrate understanding by identifying and giving examples of undefined terms, axioms, theorems, and inductive and deductive reasoning.
- Students write geometric proofs, including proofs by contradiction.
- Students construct and judge the validity of a logical argument and give counterexamples to disprove a statement.
- Students prove basic theorems involving congruence and similarity.
- Students prove that triangles are congruent or similar, and they are able to use the concept of corresponding parts of congruent triangles.
- Students know and are able to use the triangle inequality theorem.
- Students prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles.
- Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.

- Students compute the volumes and surface areas of prisms, pyramids, cylinders, cones, and spheres; and students commit to memory the formulas for prisms, pyramids, and cylinders.
- Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.
- Students determine how changes in dimensions affect the perimeter, area, and volume of common geometric figures and solids.

3. Algebra II

This discipline complements and expands the mathematical content and concepts of algebra I and geometry. Students who master algebra II will gain experience with algebraic solutions of problems in various content areas, including the solution of systems of quadratic equations, logarithmic and exponential functions, the binomial theorem, and the complex number system.

- Students solve equations and inequalities involving absolute value.
- Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices.
- Students are adept at operations on polynomials, including long division.
- Students factor polynomials representing the difference of squares, perfect square trinomials, and the sum and difference of two cubes.
- Students demonstrate knowledge of how real and complex numbers are related both arithmetically and graphically. In particular, they can plot complex numbers as points in the plane.
- Students add, subtract, multiply, and divide complex numbers.
- Students add, subtract, multiply, divide, reduce, and evaluate rational expressions with monomial and polynomial denominators and simplify complicated rational expressions, including those with negative exponents in the denominator.
- Students solve and graph quadratic equations by factoring, completing the square, or using the quadratic formula. Students apply these techniques in solving word problems. They also solve quadratic equations in the complex number system.

4. Probability and Statistics

This discipline is an introduction to the study of probability, interpretation of data, and fundamental statistical problem solving. Mastery of this academic content will provide students with a solid foundation in probability and facility in processing statistical information.

- Students know the definition of the notion of independent events and can use the rules for addition, multiplication, and complementation to solve for probabilities of particular events in finite sample spaces.
- Students know the definition of conditional probability and use it to solve for probabilities in finite sample spaces.
- Students demonstrate an understanding of the notion of discrete random variables by using them to solve for the probabilities of outcomes, such as the probability of the occurrence of five heads in 14 coin tosses.
- Students are familiar with the standard distributions (normal, binomial, and exponential) and can use them to solve for events in problems in which the distribution belongs to those families.
- Students determine the mean and the standard deviation of a normally distributed random variable.
- Students know the definitions of the mean, median, and mode of a distribution of data and can compute each in particular situations.
- Students compute the variance and the standard deviation of a distribution of data.
- Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

Interdisciplinary Links

In Math class, students can incorporate the following other subject areas:

Science: Use interesting (and curriculum-related) scientific data to explain mathematical concepts. Example: age of a tree as it relates to circumference, speed of an animal in feet per second and miles per hour, etc.

Reading: Solving extended word problems in the form of full paragraphs or stories requires students to read carefully and for meaning. Look for math problems or real world applications of math in newspapers, magazines.

Writing: Formulate clearly written answers to math problems, describe in complete sentences thought processes in generating solutions. Keep a math journal to record and describe daily difficulties, successes.

Social Studies: Graphs, chart data can be related to social studies content being studied instead of random or meaningless data. Example: Problems involving line graphs could incorporate U.S. population data throughout 19th century. Learn how time was used as measurement by the Greeks, Egyptians and Mayans.

Art: Students learn about and recognize mathematical (especially geometric) patterns as art. Students understand the basic characteristics of angles and shapes as they do and do not relate to real-world representations, including an understanding of perspective.

Health & Home Economics: Students will use real-world health and home economics data to construct mathematical problems. Example: Given the calorie and fat data of various foods, create three different daily menus that would meet a minimum calorie level without exceeding a maximum fat gram level.

Physical Education: Evaluate sports-related data as a study of patterns, fractions, or percentages. Examples: compare scoring of two point versus three point scoring strategies in basketball; compare division of different games into halves, periods (thirds), quarters, laps (eighths), innings (ninths); study formulas used for batting average, earned run average.

In other classes, Math can be used in the following ways:

Science: Use mathematical functions and equations to support scientific inquiry. Use graphs and charts to help record data from experiments and formulate hypotheses. Use measurement skills to record and analyze data. Use knowledge of numbers to discover patterns.

Reading: Students read biographies of famous mathematicians, enjoy books about math such as *The Math Curse*. Read books about other mathematical systems, for example Egyptian or Roman numerals. In early grades, number-related picture books can be read aloud to students.

Social Studies: Students can create graphs, charts reflecting social studies content. Students use knowledge of math to analyze, manipulate data. Example: What percent of total electoral college votes do Texas, California and New York have?

Art: Study of artists and art forms that incorporate mathematical patterns and functions, including M.C. Escher, computer imaging, Islamic architecture, etc.

Health & Home Economics: Students will use knowledge of fractions, percentages, and measurement to understand nutritional information, serving sizes, etc. Students will use knowledge of graphs, charts, and data analysis to understand health-related data.

Physical Education: Use data from Physical Education events (scores, race times, etc.) to create and analyze graphs and charts. Use Pythagorean Theorem, gravity, laws of motion and thermodynamics, and other mathematical concepts to explain real world physical education phenomena.

Community Partnership Links

Students will visit the **Brooklyn Botanical Gardens** to notice patterns in colors, sizes and shapes. Estimate varieties of species and leaf types. Measure angles, space and dimensions.

Students will attend the **Brooklyn Library** and estimate the number of books on the shelves about math, the number of books in the whole library and the number of visitors a year.

Students will take a walk around the block to measure the length of the blocks (convert to miles), notice the difference in the size and shapes of the buildings and patterns in windows, and note geometric designs in the playground. Architecture and construction can be related to algebraic equations and geometric shapes.

They will stop by the newspaper stand to estimate the number of newspapers for sale, estimate the total price of a purchase and check the real cost, and figure out any sale discounts at neighborhood businesses.

Students can also play with license plates numbers on the street by adding their digits, finding multiples, and deciding if they are prime or composite numbers and why.

In class, they can look at addresses that they wrote down from their trip and look for patterns of odds and evens, etc.

Students can play with playdough and mix concrete to understand proportions.

Students will visit **Brooklyn Academy of Music**, the **Met Food Garden Café** and **Lefferts Homestead** to study mathematical concepts relation to musical notation, caloric and nutritional measurements and studying graphs and data, respectively.

II. Science

The development and testing of the science curriculum for kindergarten through sixth grade was completed at the *BwCS* at the end of the 1997-1998 school year. The curriculum is both hands-on and experience-based. Both content and professional development standards are aligned with the *National Science Education Standards* developed by the National Research Council. The children of the *BwCS* have experienced success with the curriculum. It will be enhanced and adapted for the *CPCS* community.

I. Students will understand life science.

II. Students will master physical science.

III. Students will be proficient in earth science.

IV. Students will learn a scientific skill set.

Kindergarten

I. Students will understand life science.

1. Plant and Animal Life

2. The Five Senses

- Using senses to make observations (rough/ smooth, round/ not round, fast/slow, heavy/light)
- Nose smells, ears hear, nose smells, mouth tastes, skin and hands feel
- Use senses to make observations
- Sort objects into groups using senses (e.g. grouping animals by sight or touch)

3. Fruit and Seeds

- A fruit is a part of a flowering plant that contains the seeds
- Count seeds to 20
- Identification of common fruit

4. Herbs and Gardening

- Identification of common herbs, distinguish smell, leaves, taste

5. Gerbils
 - Animal structure and function
 - Growth and reproduction
 - Can be grouped by characteristics (scales, feathers or fur)
6. Earthworms, Mealworms and Redworms
 - Body structure and function, have segments, move by contracting muscles
 - Adaptive, live underground
 - Growth and Reproduction
 - Use scientific tools such as a magnifying lens
7. Birds and their Characteristics
 - Body structure and function
 - Adaptive function of flying- survival
 - Grouping birds as generally flying, feather covered invertebrates

II. Students will master physical science.

1. Balls and Ramps
 - Motion of objects in response to gravity
 - Variable force
 - Variable weight of objects
2. Metric Measurement: body parts, length
 - Linear measurements
 - Translating measurement to centimeters or inches
3. Fabrics
 - Testing variable absorption, testing composition, uses based upon characteristics
 - Measuring length with measurement tools including yarn, hands
 - Observe and describe properties of materials using appropriate tools

III. Students will be proficient in earth science.

1. The Weather
2. Solar systems and Constellation
 - Day and Night
 - Monthly changes and the Seasons
 - Interaction of all planets in our solar system
 - Human Life exists only in Earth's atmosphere
 - Relationship among air, water and land on Earth
 - Weather impacts humanity and the environment
 - Global Warming: Humanity's impact on the Earth

IV. Students will learn a scientific skill set.

1. Elements of a fair test- equal choices (test of gerbil food preference must include foods which were placed equidistant from gerbil)
2. Recognize a fair test
3. Writing results using checks and tallies
4. Expressing observations through drawing

Grade One

I. Students will understand life science.

1. The Human Body: Personal Health & Nutrition
 - Determine the criteria of a simple decision making problem related to health and nutrition
 - Use simple quantitative methods to compare costs to benefits of a decision problem. (To eat the cookies before dinner or to not eat the cookies before dinner)
 -
2. Teeth
 - Structure of human teeth reflects function, different teeth tear, bite and grind
 - Animals have teeth adapted to what they eat
3. Snails
 - Body structure and function: have shells, tentacles, mouth adapted for rasping and scraping
 - Adaptive
 - Growth and Reproduction
4. Plant Structure: roots, stems, leaves, some have flowers, seeds, and fruit

II. Students will master physical science.

1. Metric Measurement: Volume of Liquid
 - Understanding that different tools such as measuring cup or graduated cylinder (or ruler) are appropriate for measuring different things
 - Liquids take the shape of their containers
 - Measured by a graduated cylinder
 - Identify the biggest and smallest values as well as the average value of a system when given information about its characteristics and behavior
2. Aerodynamics
 - Rate of an object falling is determined by pull of gravity, resistance from air, shape of object, weight of object

- Conducting fair tests (e.g. drop two parachutes at the same time from the same height and see which one falls first)

3. Tops

- A top's spin is affected by: position of its spindle, size and weight of top, distribution of weight, gravity and force of push
- A larger push would make the top spin longer

III. Students will be proficient in earth science.

1. Leaves- neighborhood tree

IV. Students will learn a scientific skill set.

1. Experimentation and Data Collection
2. Expressing results of a fair test in speech
3. Drawing conclusions from evidence
4. Using senses to make observations
5. Expression of observations through drawing, speech, and some writing

Grade Two

I. Students will understand life science.

1. Praying Mantis, Madagascar Hissing Cockroach
2. Mealworms
 - Larval form of the beetle
 - Adapted to living in grain and eating it
 - Their color and borrowing habits protect them from predators
3. Human Ear
4. Seed Germination
 - Seeds need water only to sprout
 - Seeds carry own food until it has green leaves
 - A seed contains baby roots, stems and leaves
5. Flower to Fruit- Growth stages
 - A flower is a plant's reproductive
 - A flower contains male and female parts and produces fruit
 - Fruit contains the seeds for a new plant

II. Students will master physical science.

1. Sound

- Is the result of vibration which can be produced in a variety of ways, high vs. low pitch, loud vs. soft volume
 - The structures of the ear respond to vibration
 - Can travel through solid, liquid or gas
 - Travels best through solids
 - Making logical connections to other experience and noticing important details (e.g. a drum vibrates when it is hit)
 - Making generalizations, asking questions relevant to science, identification of patterns (e.g. greater size of an object generally creates lower pitch sounds)
2. Heating and Cooling
- Hot and cold water can be mixed to make lukewarm water
 - The amount of hot or cold water in the mixture determines the final temperature
3. Metric Measurement: Temperature
- Hot and cold can be measured with a thermometer
4. Melting and Thawing
- Set up and conduct fair tests, record results, interpretation of data, making logical conclusions from evidence
 - Cite examples of systems in which some features stay the same while other features change
 - Distinguish between reasons for stability- from lack of changes that counterbalance one another to changes within cycles
 - Describe chemical and physical changes, including changes in state of matter
5. Absorbency- Paper Towel testing
- Due to variable composition, different brands of paper towel absorb different amounts of water
 - Due to variable composition, different brands of paper towels have different strengths when wet
 - Fair tests determine the best buy
 - Provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds and other measurements
 - Analyze data by making tables and graphs and looking for patterns of change

III. Students will be proficient in earth science.

1. Minerals

- Can be identified by characteristic properties (e.g. hardness, streak, color, reaction with acid)

IV. Students will learn a scientific skill set.

1. Students work effectively
2. Students gather and process information
3. Students generate and analyze ideas
4. Students observe common themes
5. Students realize ideas
6. Students present results

Grade Three

I. Students will understand life science.

1. Mold
 - Conservation of matter
 - Cycle of producers, consumers and decomposers
2. Crayfish
 - Structure and function
 - Adaptation to environment
 - Classification of animals by significant structures (properties, behavior, previous experience)
 - A crayfish is an arthropod because it has no backbone, jointed legs and an exoskeleton
3. Plant requirements
 - Light, Water, Air
 - Photosynthesis
4. Food chains and Food Webs
 - Create a model of a food web to represent the food chain
5. Endangered Species
 - Diverse geographic areas and species
 - Reasons for endangerment
 - Describe the factors responsible for competition within species and the significance of that competition

II. Students will master physical science.

1. Crystal Structure under the Microscope & Microscopic Life
 - Use science tools: magnifying lens, thermometer, meter stick, graduated cylinder, balance, microscope
 - The cell is the basic unit of life and is microscopic in size
 - Some plants and animals are made of a single cell

2. Sound Energy
3. Light Energy
 - Describe a variety of forms of energy (i.e. heat, chemical and light) and the changes that occur in objects when they interact with those forms of energy.
 - Observe the way one form of energy can be transformed into another form of energy present in common situations
4. Structures
 - Strength of material is determined by distribution of material as well as its nature
 - Some shapes give structure its rigidity
5. Sink and Float
 - Whether something sinks or floats in water depends on its weight in relation to the same weight of water
 - Sink and float is a model to represent a real system

IV. Students will learn a scientific skill set.

1. Design and conduct fair tests
2. Record results as tables, graphs and charts
3. Interpret data from tables, graphs and charts
4. Make connections to other experience
5. Observe with greater objectivity and accuracy (noting details)
6. Express observations in drawing, writing and speech
7. Seek explanations to observed phenomena
8. Draw logical conclusions from evidence
9. Identify questions that can be answered with experiments

Grade Four

1. Students will understand life science.

1. Snakes
 - Structure and behavior of ribbon snakes are for its survival
 - Its scales are adaptations to keep it from drying out and allow it to move on both rough and smooth surfaces
 - Its tongue is adapted for chemical sensing to help it find food
 - Snakes are reptiles, have vertebrate, breathe air, cold-blooded, have scales
2. Plant Adaptation and Tropisms
 - Plants are adapted for survival in response to environment (e.g. desert plants to use and lose less water)

- Describe how plants and animals, including humans, depend upon each other and the nonliving environment
 - Identify ways in which animals and humans have changed their environment and the effects of those changes
3. **Minibeasts in leaf litter**
- Decaying leaves are home to many animals
 - Classification of animals by shape, number of legs, number and types of wings, segmentation and lack of it

II. Students will master physical science.

1. **Mystery Powders**
- White powders can be distinguished by their reactions with water, vinegar, iodine, and an acid-base indicator like red cabbage juice
 - Reactions can be used to identify knowns and unknowns
 - Identification of cause and effect relationships
 - Differentiation between questions that can be answered with experiments vs. those that cannot
2. **pH: Acids and Bases**
- An acid is a substance that turns red cabbage juice pink (or BTB yellow)
 - A base is a substance that turns red cabbage juice green (BTB blue)
 - Water is neutral
 - A strong acid can neutralize a strong base
3. **Balances and Simple Machines**
- Weight and time distance on one side of a scale and the weight times the distance from the fulcrum on the other
 - Leverage
 - Gears use increased distance to decrease effort needed, gears change direction of effort
4. **Metric Measurement: Weight**

III. Students will be proficient in earth science.

1. **Magnets and Compasses**
- Magnets attract iron, steel, nickel and cobalt
 - Magnets have two poles- north and south
 - Like poles repel, Unlike poles attract
 - Magnetic forces can be measured and have impact over distances
 - Magnets can have different strengths
 - A compass is a magnet that is free to spin in response to the earth's magnetic field

IV. Students will learn a scientific skill set.

1. Reactions can be used to identify knowns and unknowns
2. Identification of cause and effect relationships
3. Differentiation between questions that can be answered with experiments vs. those that cannot

Grade Five

I. Students will understand life science.

1. Tree Frogs
 - Observe the differences within a species may give individuals an advantage in surviving and reproducing

II. Students will master physical science.

1. Electricity: circuits
2. Electricity: magnets, motors and generators
3. Current going around in a wire produces a magnetic field.
 - An electromagnet's strength depends upon the number of coils, the length of wire, the number of batteries and the tightness of the coils.
 - The poles of an electromagnet are determined by which end of the battery the wire is attached to. (+ = north, - = south)
 - A motor is an electromagnet which is made to spin by the switching of its poles in the field of a strong magnet.
 - Electric current is produced when a magnet moves through the coil of an electromagnet.
4. Acids and Bases

III. Students will be proficient in earth science.

1. Earth motion
2. Ecosystems: Cycles of Matter, Water, Carbon Dioxide and Oxygen, Photosynthesis
 - Describe how living things, including humans, depend upon living and nonliving environment for their survival
 - Describe the effects of environmental changes on humans and other populations

IV. Students will learn a scientific skill set

1. Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about

2. Question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings
3. Develop relationships among observations to construct descriptions of objects and events and to form their own tentative explanations of what they have observed
4. Investigation
5. Empirical Method: Qualitative/ Quantitative Analysis
6. Introduction to Systems Thinking
7. Decision-making

Grade Six

I. Students will understand life science.

1. Human Body: Skeletal and Muscular Systems
2. Nutrition
3. Human Body: Digestion, Respiration, Circulation and Excretion
4. Reproduction and Development
 - Describe the factors that promote good health and growth in human beings
 - Describe evidence of growth, repair, and maintenance, such as nails, hair, and bone and the healing of cuts and bruises
5. Genetics
 - Recognize that traits of living things are both inherited and acquired or learned
 - Recognize that for humans and other living things there is genetic continuity between generations

II. Students will master physical science.

1. Light and the Eye
2. Sound and the Ear

III. Students will be proficient in earth science.

1. Use of the Microscope

IV. Students will learn a scientific skill set.

1. Analyze science/ technology/ society problems and issues that effect their home, school, or community, and carry out a remedial course of action
2. Make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit tradeoffs to arrive at an optimal choice
3. 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

Grade Seven***I. Students will master physical science.***

1. Introduction to Chemistry
2. Introduction to Physics: structure, organization and interaction of matter
 - Describe the differences between dynamic systems and organizational systems
 - Describe the differences and similarities between engineering systems, natural systems and social systems
 - Describe the differences between closed- and open- looped systems
 - Describe how the output from one part of a system(which can include material, energy or information) can become the input to other parts
3. Density via Sink and Float
4. Solids, Liquids and Gases
5. Chemical Reactions, Conservation of Matter, Conservation of Energy
 - Describe how feedback mechanisms are used in both designed and natural systems to keep changes within desired limits
 - Describe changes within equilibrium cycles in terms of frequency or cycle length and determine the highest and lowest values when they occur
6. Atomic Structure, The Periodic Table, Atom Models
 - Cite examples of how different aspects of natural and designed systems change at different rates with changes in scale
 - Use powers of ten notation to represent very small and very high numbers

II. Students will be proficient in earth science.

1. Earth, Moon and Sun
 - Explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.
2. Earth Motions and Forces: Velocity, Acceleration, Force
 - Describe different patterns of motion of objects

IV. Students will learn a scientific skill set

1. Students will work effectively
2. Students will gather and process information
3. Students will generate and analyze ideas
4. Students will observe common themes
5. Students will realize ideas
6. Students will present results

Grade Eight***I. Students will understand life science.***

1. Population, Genetics and Reproduction
2. Describe sexual and asexual mechanisms for passing genetic materials from generation to generation
3. Describe simple mechanisms related to the inheritance of some physical traits in offspring
4. Observe and describe in variation in reproductive patterns of organisms, including sexual and asexual reproduction
5. Explain the role of sperm and egg cells in sexual reproduction
6. Observe and describe cell division at the microscopic level and its macroscopic effects
7. Compare the way a variety of living specimens carry out basic life functions and maintain daily equilibrium
8. 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

II. Students will master physical and earth sciences.

1. Geology: Minerals, Rocks, Rock Formation, Rock Cycle, Soils
 - Observe and describe properties of materials, such as density, conductivity, and solubility
 - Distinguish between chemical and physical changes
 - Develop their own mental models to explain common chemical reactions and changes in states of matter
2. Oceanography
 - Compare and contrast the parts of plants, animals, and one-celled organisms
3. Water cycle, clouds, ground water
 - Select an appropriate model to begin the search for answers or solutions to a question or problem.
 - 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)
 - Demonstrate the effectiveness of different models to represent the same the thing and different models to represent different things
4. Plate tectonics: volcanoes, earthquakes, mountains and ocean formation
 - Use simple linear equations to represent how a parameter changes with time

- Observe patterns of change in trends or cycles and make predictions on what might happen in the future
5. **Meteorology: air pressure, humidity, convection, air masses, fronts, storms**
 - Describe the sources and identify the transformations of energy and matter in every day life
 - Observe and describe heating and cooling events
 - Observe and describe energy changes as related to chemical reactions
 6. **Astronomy: Earth, Moon, Solar system, Stars: birth and death**
 - Describe and explain phenomena by designing and conducting investigations involving systematic observations, accurate measurements, and the identification of control variables by inquiring into relevant mathematical ideas, and by using mathematical and technical tools and procedures to assist in the investigation
 7. **Pollution**
 - Analyze science/technology/society problems and issues at the local level and plan and carry out a remedial course of action
 - Make informed consumer decisions by seeking answers to appropriate questions about products, services and systems; determining cost/benefit and risk/benefit tradeoffs; and applying this knowledge to a potential purchase (e.g. environmentally friendly products)
 - Design a solution to real-world pollution related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in developing a solution
 - Determine the criteria and constraints and make trade offs to determine the best decision
 - Use graphs of information for a decision making problem to determine the optimum solution

IV. Students will learn a scientific skill set

1. Students formulate questions independently with the aid of references appropriate for guiding the search for explanations of every day observations
2. Students construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena
3. Students represent, present, and defend their proposed explanations of every day observations so that they can be understood by others
4. Students seek to clarify, to assess critically and to reconcile with their own thinking the ideas presented to others, including peers, teachers, authors and scientists
5. 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

6. Students develop, present, and defend formal research proposals for testing their own explanations of common phenomena, including ways of obtaining needed observations and ways of conducting simple experiments
7. Students carry out their research proposals, recording observations and measurements (e.g. lab notes, audio tapes, computer disks, video tape) to help assess the explanation
8. Students design charts and, tables, graphs and other representations of observations in conventional and creative ways to help them address their research question or hypothesis
9. Students interpret the organized data to answer the research question or hypothesis and to gain insight into the problem
10. Students modify their personal understanding of phenomena based on evaluation of their hypothesis

Interdisciplinary Links

Math: Students understand science to be applied math and recognize mathematical language and functions in their scientific work in areas such as the solar system and constellations.

Social Studies & Technology: Students study the affects of scientific discovery and advances in human history from prehistoric times to modernity.

The Arts: Students study frequency and wavelengths as used in music. They study the color spectrum, space and dimensions as used in art. Students understand physical movement and energy in terms of dance.

Language Arts: Students write and research science topics. They study the science of language and linguistics.

Physical Education: Students calculate height and weight. They measure distance and temperature. Students understand physical movement and calories as energy.

Heath and Home Education: Students study biological functions and systems. They see how physical health is affected by nutrition and exercise.

Community Partnership Links

Students will work with the **Brooklyn Botanical Gardens'** educators to observe and study a broad range of plant life and cultivation as well as soil conservation, composting and specific ecological systems in the gardens. They can also study light energy and photosynthesis here.

Prospect Park Urban Rangers and the **Urban Environmental Center** in Prospect Park will provide students with the opportunity to study on-going changes in the urban environment including efforts to revive the Gowanus Canal and the plant, fish and wildlife that exist in the canals and coastlines. The students will also learn about the natural environments in Prospect Park and their maintenance.

The Brooklyn Wildlife Center and Aquarium will give students hands-on introduction to the habitats and life cycles of a wide range of animals, fish, and birds. Students will also learn about the care, feeding, and health care of domestic as well as wild animals and how wildlife populations are changing due to environmental factors around the globe.

The Brooklyn Children's Museum has regular and special exhibits that will supplement the science curriculum in botany, zoology, and the physical sciences.

Lefferts Homestead will be visited to show students the different phases of matter through candlemaking.

III. Language Arts

The following is a combination of the benchmarks for literacy developed by the *BwCS* with the standards for the Neighborhood House Charter School in Dorcestor, MA and the Massachusettes' Language Arts Standards.

- I. Students will develop listening and speaking skills.*
- II. Students will learn through reading, literature and media.*
- III. Students will study writing mechanics and composition*
- IV. Students study language history and development.*

Pre-K – Four

- I. Students will develop listening and speaking skills.*

1. (Group Discussions)

Students will use agreed-upon rules for informal and formal discussions in small and large groups. These rules include active listening, staying on topic or creating an appropriate transition to a new topic, building on the ideas of previous speakers, showing consideration of others' contributions to the discussion, avoiding sarcasm and personal remarks, taking turns, and gaining the floor in appropriate ways. Additionally, students will pose questions, listen to the ideas of others, and contribute their own information or ideas in group discussions and interviews in order to acquire new knowledge.

Grades Standard Examples

PK-4 Follow agreed-upon rules for class discussion and carry out assigned roles in self-run small group discussion. Contribute knowledge in class discussion to develop the framework for a class project.

Specific Student Benchmark Examples, by Grade:

PK Speaks clearly and articulates ideas – can be understood by everyone.
Contributes thoughts about a subject being discussed.

Answers questions presented in a variety of ways.

Speaks comfortably to peers and adults.

- K** Expresses opinions in response to teacher and student questions.
- 1** Generates own questions and comments, and respond to other people's questions and comments.
- 2** Listens with an increased span of concentration to other children and adults, asking and responding to questions and commenting on what has been said.
- 3** Listens actively and is involved with conversation.
Speaks confidently, asserts own thoughts and feelings in group discussions.
- 4** Listens for meaning and interprets what others are saying.
- 4** Generates ideas, opinions, and questions from what is being discussed.

2. Oral Presentations and Performances

Students will plan and present effective oral presentations, dramatic readings, recitations, and performances that demonstrate appropriate consideration of audience, purpose, and the information to be conveyed.

Grades Standard Examples

PK-4 Give oral presentations about experiences or interests using eye contact, proper pace, volume, and clear enunciation. Plan and perform readings of selected texts using clear diction and voice quality (pitch, tempo, and tone) appropriate to the selection.

Specific Student Benchmark Examples, by Grade:

- PK** Tells a story in sequence.
Retells a familiar story.
Recites familiar poems, chants, and songs with an understanding of rhythm and rhyming.
- K** Speaks clearly, conveying ideas with organization and clarity in discussions and conversations.
Participates in group recitation of songs and poems.
Tells how an activity will be or was carried out.
- 1** Describes real and imaginary experiences in an organized and clear manner.
Gives organized and clear explanations of ideas.
- 2** Reads aloud loudly and clearly from class book.

- 3 Speaks in complete sentences, incorporating detail.
- 4 Communicates effectively in standard English.

II. Students will learn through reading, literature and media

3. Decoding & Word Identification

Students will decode unfamiliar words accurately and recall familiar words automatically, drawing on a variety of strategies as needed.

Grades Standard Examples

- PK-4 Use knowledge of phonics, syllabication, suffixes, prefixes and context clues to decode new words. Simultaneously increase store of sight words for reading and spelling.

Specific Student Benchmark Examples, by Grade:

- PK Identifies letters of the alphabet.
Reads names of classmates.
- K Distinguishes the initial and final sound of a word.
Identifies and generates rhyming words.
Recognizes at least 50 sight words frequently used in the classroom.
Begins to recognize patterns in words.
Sounds out c-v-c words.
Begins to decode unknown words by sounding out the initial letter.
- 1 Reads independently using a variety of reading strategies (phonics, semantics, and syntax).
Reads at least 100 sight words automatically.
- 2 Able to sound out words and identify word patterns.
- 3 Attempts to sound out all unfamiliar words and succeeds with all phonetically controlled words.
- 4 Recognizes prefixes and suffixes and their meanings. Begins to use context clues to learn new words.

4. Reading Comprehension

Students will identify the basic facts and essential ideas in what they have read, heard, or viewed.

Grades Standard Examples

- PK-4 Identify the basic facts and ideas in what they have read, heard, or viewed, drawing on such strategies as recalling prior knowledge, previewing illustrations

and headings to make predictions, listening to others' ideas, and comparing information from several sources.

Specific Student Benchmark Examples, by Grade:

- PK** Understands and can explain what is happening in the picture on a page.
Listens to whole book with interest.
- K** Enjoys books and picks them up voluntarily.
Responds to books and stories with interest.
Understands stories and can answer questions related to who, what, when, where, and why.
Makes reasonable predictions what will happen next in a story.
Can retell information from a story in approximate sequence and with related context.
- 1** Read Level 1 and/or Level 2 books independently and comfortably.
Begins to self-correct when reading a story.
Makes predictions.
Comprehends story being read by self or other.
- 2** Self-monitors for comprehension.
Responds to literature by drawing conclusions, making predictions, connecting story to personal experiences.
Organizes events and ideas to help recall.
- 3** Responds accurately to reading comprehension questions on both factual and inferential levels.
- 4** Listens to a story read by a teacher, takes notes and answers comprehension questions accurately.

5. Analytical and Critical Thinking

Students will interpret the meaning of literary works, non-fiction, films, and media by using different critical lenses and analytical techniques.

Grades Standard Examples

- PK-4** Interpret the meaning of different selections of literary works and non-fiction, noting how different uses of language shape the reader's expectation of how to read and interpret texts.

Specific Student Benchmark Examples, by Grade:

- PK** After listening to a book read aloud, shares what he/she likes about book.
- K** After listening to a book, shares what he/she thinks the author's message to the reader is.

- 1 After viewing a children's film, discusses the importance of the main character to the film.
- 2 Discusses whether or not a story line in a work of fiction could also happen in reality.
- 3 Discusses the different strategies required to navigate a literary piece versus an expository piece
- 4 Can create questions for discussion that reflect an understanding of a work's historical context.

6. Literary Devices

Students will identify, analyze, and apply knowledge of the structure and elements of fiction, including plot, character, setting, theme and imagery, and provide evidence from the text to support their understanding. Students will identify and analyze how an author's choice of words appeals to the senses, creates imagery, suggests mood, and sets tone.

Grades Standard Examples

- PK-4** Identify the elements of plot, character, and setting in a favorite story and use these elements in their own stories. Identify themes in fictional and non-fictional works, and relate them to personal experience or to the experiences of others. Identify words appealing to the senses or involving direct or indirect comparisons in literature.

Specific Student Benchmark Examples, by Grade:

- PK** Gives simple description of how a book makes him/her feel.
- K** Picks up cues from literature and can talk about them.
- 1** Looks at illustrations for clues.
Discusses story text, plot, characters, setting, problems, solutions, beginning, middle, and end.
Explains what he/she imagined while listening to a book.
- 2** Can understand and recall the setting, story-sequence, characters and significant details of story.
- 3** Discusses story plot, character, and setting with peers and adults.
Identifies one of the main themes of a book.
- 4** Analyzes and compares elements of a story using Venn diagrams.

7. Genres

Students will identify, analyze, and apply knowledge of the characteristics of different genres, including poetry and myths and narratives from different cultures and geographic regions. Students will identify, analyze, and apply knowledge of the structure, elements, and meaning of non-fiction or informational material and provide evidence from the text to support their understanding.

Grades Standard Examples

PK-4 Distinguish among common forms of literature such as poetry, prose, fiction, nonfiction, and drama, and identify their differences. Apply this knowledge as a strategy for reading and writing. Identify a regular beat and similarities of sounds in words in responding to rhythm and rhyme in poetry. Compare tales from different cultures. Identify and use common expository organizational structures such as comparison and contrast, chronological or logical order, and cause and effect. Use text and graphic features such as topic sentences, headings, key words, diagrams, illustrations, charts, and maps.

Specific Student Benchmark Examples, by Grade:

- PK** Enjoys listening to books of different genres.
- K** Begins to recognize and understand rhyme and rhythm through recitation of common nursery rhymes. Uses nonfiction reference material to gain information. Understands that a story has a beginning, a middle and an end; can retell familiar stories in order.
- 1** Begins to recognize a variety of genres (e.g. fairy tales, folk tales, mysteries, etc.)
- 2** Reads fiction and non-fiction on grade level comfortably.
Reads a variety of fiction genres, including adventure and mystery.
- 3** Reads a variety of genres, such as fables, folktales, legends, myths, biography and poetry.
Reads grade level non-fiction material for information.
- 4** Understands how and why authors use different styles of writing.

8. Media

Students will obtain information by using a variety of media and evaluate the quality of material they obtain. Students will explain how the techniques used in electronic media modify traditional forms of discourse for different aesthetic and rhetorical purposes.

Students will design and create coherent media productions with a clear controlling idea, adequate detail, and appropriate consideration of audience, purpose, and medium.

Grades Standard Examples

PK-4 Use electronic media for research. Identify techniques used in television and use their knowledge to distinguish between facts and misleading information. Create age-appropriate media productions (radio script, television play, audiotape, etc.) for display or transmission.

Specific Student Benchmark Examples, by Grade:

- PK** Listens and sings along to songs on tape.
- K** Listens to books on tape and follows along in book.
Reads environmental print.
- 1** Writes words and sentences on the computer.
- 2** Composes a simple composition on the computer.
- 3** Reads articles in newspapers and magazines. Write summaries of them.

III. Students will study writing mechanics and composition

9. Spelling

Students will identify, describe, and apply knowledge of the standard English conventions for spelling. Will learn strategies for spelling unknown words, including utilizing a dictionary when possible.

Grades Standard Examples

PK-4 Gain and use knowledge of sound-symbol correspondences, different syllable types, and phonetically irregular words. Writing has few spelling errors (with use dictionary).

Student Benchmark Examples, by Grade:

- PK** Writes name.
- K** Uses invented/creative spelling that shows an understanding of letters and sounds.
Writes at least 20 sight words from memory.
Begins to spell consonant-vowel-consonant (c-v-c) words, writing at least the initial and final sounds correctly.
- 1** Uses a combination of invented and conventional spelling.
When using invented spelling, sounds out words and includes syllables that are heard in word.

- Can spell c-v-c words correctly.
- 2 Correctly spells words most frequently used in reading and writing, while continuing to use invented spelling for more complex words.
Begins to use dictionary to look up new or unknown words.
- 3 Spells sight words and multisyllabic words correctly with few errors.
- 4 Understands and follows spelling rules.

10. Print Concepts, Grammar, Punctuation and Usage

Students will identify, describe, and apply knowledge of the structure of the English language and Standard English conventions for sentence structure, usage, punctuation, and capitalization. Students will use knowledge of standard English conventions to edit their writing.

Grades Standard Examples

- PK-4 Identify parts of speech (e.g. nouns, verbs, and adjectives), punctuation (e.g., end marks, commas for series, apostrophes), capitalization (e.g., countries, cities, names of people, months, days), paragraph indentation, usage (e.g., subject and verb agreement), and sentence structure (e.g., fragments, run-ons). Use knowledge of punctuation, usage, sentence structure to edit their writing.

Specific Student Benchmark Examples, by Grade:

- PK Knows the cover of a book and knows how to open book and turn pages.
Practices reading-like behavior.
Can tell the difference between pictures and words.
- K Uses pronouns correctly.
Begins to distinguish between letters and words.
Prints full name legibly, using capital and lower-case letters appropriately.
Uses correct directional habits.
Has an awareness of periods and begins to understand when to use them.
Identifies parts of a book (cover, author, illustrator and title).
- 1 Distinguishes between a letter, a word, and a sentence.
Begins to use capital and lower-case letters appropriately.
Places appropriate spaces between words.
- 2 Writes in complete sentences with appropriate use of capital letters, periods, and question marks.
- 3 Writing has few errors of punctuation, and grammar.
Uses correct verb tense when speaking.

Uses quotation marks when writing.

Understands basic structure of a paragraph, including indentation and relation of multiple sentences to one idea.

- 4 Identifies and uses parts of speech appropriately.
Identifies parts of a sentence and tenses and uses them appropriately.
Punctuates a sentence properly.

11. Composition Preparation and Research

Students will use self-generated questions, note-taking, summarizing, précis writing, and outlining to enhance learning when reading or writing. Additionally, students will use open-ended research questions, different sources of information, and appropriate research methods to gather information for their research projects.

Grades Standard Examples

- PK-4 Generate their own relevant questions in their exploration of a topic.
Formulate open-ended research questions to explore a topic of interest.

Specific Student Benchmark Examples, by Grade:

- PK Gathers materials for writing and/or drawing.
- 1 Writes on self-selected as well as teacher selected topics.
- 2 Beginning to use dictionary to look up new or unknown words that relate to topic.
- 3 Can write a paper based on research.
- 4 Can take notes from readings.
Plans a written assignment by generating ideas using webs, lists.
Writes a rough draft based on planned ideas.
Uses reference materials such as dictionaries, glossaries, encyclopedias, etc.
Utilizes technical resources such as the Internet, online catalogs, etc.
Presents a final written document with minimal errors.

12. Composition

Students will write compositions with a clear focus, developing the composition with logically related ideas and adequate supporting detail.

Grades Standard Examples

- PK-4 Write well-organized compositions with a beginning, middle, and end, drawing on a variety of strategies as needed to generate and organize ideas.

Specific Student Benchmark Examples, by Grade:

- PK** Holds pencil properly.
Begins to draw representations of experiences; can talk about what is drawn.
- K** Begins to print all letters clearly with some attempt at appropriate form.
Copies words and symbols.
- 1** Writes at least three complete sentences with detail.
Chooses an appropriate title for stories.
- 2** Writes simple stories with a sense of order or logical sequence (beginning, middle, and end).
Familiar with the ideas of paragraphs with topic sentences, details, and conclusions.
- 3** Reads factual material and writes to present the information, including information related to the who, what, where, when, why, and how.
Writes complete and meaningful sentences.
- 4** Can write clear, complete, understandable paragraphs using main ideas and details.
Understands and shares opinions and is able to prove and support opinions.

13. Composition Revision & Assessment

Students will demonstrate improvement in organization, content, paragraph development, level of detail, style, tone, and word choice (diction) in their compositions after revising them. and use appropriate rhetorical, logical, and stylistic criteria for assessing final versions of their compositions or research projects before presenting them to varied audiences

Grades Standard Examples

- PK-4** Revise their writing to improve level of detail and logical sequence after looking for missing information and determining if their ideas follow each other in a logical order. Form and explain their own standards or judgments of quality, display them in the classroom, and present them to family members.

Specific Student Benchmark Examples, by Grade:

- PK** Can talk about what he or she has drawn.
- K** Reviews written name for errors and corrects.

- 1 Re-reads and begins to self-correct written text (e.g. adds missing words)
- 2 Self-edit as well as revise and redraft in discussion with teacher, adults, or other children.
Pays attention to meaning, clarity and sequence when self-editing.
- 3 Follows guidelines for editing work.
- 4 Catches and corrects most errors in their writing.

14. Writing in Different Genres

Students will select and use appropriate genres, modes of reasoning, and speaking styles when writing for different audiences and rhetorical purposes.

Grades Standard Examples

PreK-4 Use a variety of forms or genres when writing for different audiences.

Specific Student Benchmark Examples, by Grade:

- PK Explores a wide variety of materials and uses them to express self creatively.
- K Participates in group dictation activities.
- 1 Writes in different genres, sharing pieces with school and home communities.
- 2 Writes for different purposes and audiences, including stories, personal journals, letters, and poems.
- 3 Produces three forms of writing: narrative, expository, and persuasive.
Writes poetry and stories (factual and fiction) that include a beginning, middle, and end.
Accurately uses a variety of voices in writing.
- 4 Writes a summary, letter, journal entry, essay, and outline and know the different elements of each.

IV. Students study language history and development.

15. Vocabulary

Students will use a variety of methods to understand new words encountered while reading, including identifying meanings through an understanding of word relationships, and then use these words accurately in speaking and writing. Use knowledge of Greek and Latin roots as well as context clues and glossaries to understand the specialized vocabulary in the content areas, and use these words accurately in speaking and writing.

Grades Standard Examples

PK-4 Identify and use correctly in all content areas words related as antonyms, synonyms, members of classifications, compounds, homophones, and homographs; and words related through prefixes and suffixes. Use a dictionary when necessary.

Specific Student Benchmark Examples, by Grade:

- PK Labels people, places, and objects in a sentence.
Labels objects in pictures.**
- K Uses appropriate, specific vocabulary for common objects.
Expresses feelings and thoughts in words.
Learns and uses new vocabulary as it is introduced in stories or discussions.
Uses context (i.e. pictures) to figure out unknown words.**
- 1 Identifies and labels feelings and connects them to experiences.**
- 2 Uses appropriate wording to convey a message.
Begins to use dictionary to look up and find meaning of new or unknown words.**
- 3 Speaks appropriately and correctly in many different situations (at home, with friends, at school, etc.) while expanding and using correct vocabulary.**
- 4 Expresses thoughts, opinions, and ideas, using a wide range of vocabulary.
Locates vocabulary words in the dictionary.
Uses new vocabulary words in a meaningful sentence, as well as discussions.**

16. History, Development of English, & Dialects

Students will describe and analyze how the English language has developed and been influenced by other languages. Students will describe and analyze how oral dialects differ from each other in English, how they differ from written standard English, and what role standard American English plays in informal and formal communication.

Grades Standard Examples

PreK-4 Identify words or word parts from other languages that have been adopted into the English language. Identify variations in the dialogue of literary characters and explain how these variations relate to differences in the characters' occupations or social groups, or the geographic region of the story.

Specific Student Benchmark Examples, by Grade:

- PK Understands that there are different languages used in New York City.
- K Has an awareness of how language varies in different contexts (e.g. written vs. oral).
Recognizes the association between written and spoken words.
- 1 Understands that what people say can be represented in symbols such as letters, sounds words, and math.
Begins to understand and use appropriate language in different contexts (e.g. home, school, and community).
- 2 Knows that some words in English have roots in other languages.
- 3 Speaks correctly in many different situations; conversations should be “place appropriate.”
- 4 Recognizes variation in the dialogue of literary characters.

Grades Five-Eight

I. Students will develop listening and speaking skills.

1. Group Discussions

Students will use agreed-upon rules for informal and formal discussions in small and large groups. These rules include active listening, staying on topic or creating an appropriate transition to a new topic, building on the ideas of previous speakers, showing consideration of others’ contributions to the discussion, avoiding sarcasm and personal remarks, taking turns, and gaining the floor in appropriate ways. Additionally, students will pose questions, listen to the ideas of others, and contribute their own information or ideas in group discussions and interviews in order to acquire new knowledge.

Grades Standard Examples

- 5-8 Apply understanding of agreed-upon rules and individual roles in a variety of discussion formats. Practice summarizing the previous speaker’s main point before responding to it. Gather relevant information for a research project or composition through group interview techniques.

Specific Student Benchmark Examples, by Grade:

- 5 Organizes thoughts in a short period of time without paper.
- 6 Formulates an argument that includes evidence without using paper.
- 7 Creates a response to an argument with refuting evidence.
- 8 Asks questions and makes comments which incorporate analysis and synthesis of prior comments made by classmates in the discussion.

2. Oral Presentations and Performances

Students will plan and present effective oral presentations, dramatic readings, recitations, and performances that demonstrate appropriate consideration of audience, purpose, and the information to be conveyed.

Grades Standard Examples

- 5-8 Present similar content for various purposes and to different audiences (peers, parents, younger students), showing appropriate changes in delivery (gestures, vocabulary, pace, visuals). Develop characters through the use of basic acting skills (such as memorization, sensory recall, concentration, diction, body alignment, and expressive gesture), and describe the artistic choices made in their development.

Specific Student Benchmark Examples, by Grade:

- 5 Explains information in an organized, detailed way.
Makes others understand reasons for an opinion or point of view.
Easily reads his/her own reading aloud.
- 6 Gives an oral report using only note cards as guides.
- 7 Organizes an oral report with only an outline.
- 8 Delivers an oral presentation with confidence, in a loud and clear voice, while making eye contact with audience.

II. Students will learn through reading, literature and media.

Learning Standard 3 (Decoding & Word Identification)

Students will decode unfamiliar words accurately and recall familiar words automatically, drawing on a variety of strategies as needed.

Grades Standard Examples

- 5-8 Continue use of phonics, syllabication, suffixes, prefixes, and context clues to decode new words. Additionally, will use knowledge of Greek and Latin roots to aid in decoding and word identification processes. Builds store of sight words sufficiently such that reading becomes fluent and accurate.

Specific Student Benchmark Examples, by Grade:

- 5 Decodes most unfamiliar multisyllabic words using knowledge of syllable patterns.

- 6 Determines the correct pronunciation of homographs with two or more syllables based on context.
- 7 Decodes unfamiliar words with little noticeable strain to the oral reading process.
- 8 Decodes unfamiliar words fluently and accurately.

4. Reading Comprehension

Students will identify the basic facts and essential ideas in what they have read, heard, or viewed.

Grades Standard Examples

- 5-8 Identify basic facts and ideas in what they have read, heard, or viewed, drawing on such strategies as recalling genre characteristics, setting a purpose, generating essential questions, and clarifying ideas by rereading and discussing.

Specific Student Benchmark Examples, by Grade:

- 5 Provides details from reading to support opinions.
Responds to text by drawing upon emotions, experience, or prior knowledge.
- 6 Periodically self-checks progress to ensure understanding of reading material.
- 7 Scans reading material to locate desired information.
- 8 When faced with a reading comprehension question, identifies the type of skill required to answer the question (e.g. sequencing, predicting, inferencing).

5. Analytical and Critical Thinking

Students will interpret the meaning of literary works, non-fiction, films, and media by using different critical lenses and analytical techniques.

Grades Standard Examples

- 5-8 Analyze how a short story, poem, film, or essay can be shown to reflect the author's personal history, attitudes, and beliefs; or how a film or work of literature can be shown to reflect the period, ideas, customs, and outlooks of a people living in a particular time in history.

Specific Student Benchmark Examples, by Grade:

- 5 Reads a novel and views a film based on the novel and critiques the movie

against the novel.

- 6 Reads a piece of historical fiction and writes about the ideas and customs of the time period evident in the work.
- 7 Reads poems by two different poets, comparing and contrasting the two poets' attitudes and beliefs.
- 8 Approaches historical material with a critical lens, knowing that the author may have included certain perspectives and information while excluding others.

6. Literary Devices

Students will identify, analyze, and apply knowledge of the structure and elements of fiction, including plot, character, setting, theme and imagery, and provide evidence from the text to support their understanding. Students will identify and analyze how an author's choice of words appeals to the senses, creates imagery, suggests mood, and sets tone.

Grades Standard Examples

- 5-8 Locate and analyze elements of plot and characterization and then use an understanding of these elements to compose a short essay on how the qualities of the central characters determine resolution of the conflict. Apply knowledge of the concept that theme refers to the main idea and meaning of a selection, whether it is implied or stated directly, and analyze and evaluate similar themes across a variety of selections, distinguishing theme from topic. Identify sensory imagery and direct or indirect comparisons when responding to literature, and then choose words for these purposes in their own compositions.

Specific Student Benchmark Examples, by Grade:

- 5 Infers information about characters that is not mentioned explicitly in the text.
Identifies fact and opinion, who's telling the story, the author's purpose in telling the story, the mood of the story, and the overall message.
Has good understanding of figurative language.
- 6 Reads and writes a complex character sketch, including physical, behavioral, and psychological traits, and can use that character in a story.
- 7 Predicts the actions of a character based on a character's past experiences or psychological makeup and support theory with evidence.

Understands the concept of denouement and identifies the concept in a work of fiction.

- 8 Identifies the mood of a poem as well as the specific words that create the mood.

7. Genres

Students will identify, analyze, and apply knowledge of the characteristics of different genres, including poetry and myths and narratives from different cultures and geographic regions. Students will identify, analyze, and apply knowledge of the structure, elements, and meaning of non-fiction or informational material and provide evidence from the text to support their understanding.

Grades Standard Examples

- 5-8 Identify and analyze the characteristics of four major genres — non-fiction, fiction, drama, and poetry — as forms chosen by an author to accomplish a purpose. Respond to and analyze the effects of sound in poetry (alliteration, assonance, consonance, onomatopoeia, and rhyme scheme). Compare variants of complex folktales and develop theories to account for the presence of similar tales in diverse cultures, even when there is no evidence for direct contact among these cultures. Identify and use common expository organizational structures and graphic features to comprehend information and compose reports or presentations in all academic disciplines.

Specific Student Benchmark Examples, by Grade:

- 5 Identifies different types of literature.
- 6 Reads and writes autobiographies and memoirs.
Uses several styles of non-fiction writing, including article and narrative form.
- 7 Explains how a work of science fiction is also a social commentary.
Begins to use adult resources in the library to complete research projects, including adult encyclopedias and biographical dictionaries.
- 8 Actively chooses to read books of different genres in order to expand experience, knowledge base and vocabulary.

8. Media

Students will obtain information by using a variety of media and evaluate the quality of material they obtain. Students will explain how the techniques used in electronic media modify traditional forms of discourse for different aesthetic and rhetorical purposes.

Students will design and create coherent media productions with a clear controlling idea, adequate detail, and appropriate consideration of audience, purpose, and medium.

Grades Standard Examples

- 5-8 Use a variety of media such as computerized card catalogs, on-line data bases, electronic almanacs and encyclopedias for research. Analyze the effect on the reader's or viewer's emotions of text and image in print journalism, images, text, and sound in electronic journalism, distinguishing the techniques used in each to achieve these effects. Evaluate when to use different kinds of images (images, music, sound effects, graphics) to create an effective production.

Specific Student Benchmark Examples, by Grade:

- 5 Begins to develop an understanding of the role of the media in focusing attention and forming an opinion.
- 6 Creates articles and features for class newspaper.
- 7 Uses persuasive writing (letters) to initiate changes in school environment.
- 8 Uses the internet to aid in the writing of a research paper and distinguishes between reliable and unreliable sources.

III. Students will study writing mechanics and composition

9. Spelling

Students will identify, describe, and apply knowledge of the standard English conventions for spelling. Will learn strategies for spelling unknown words, including utilizing a dictionary when possible.

Grades Standard Examples

- 5-8 Solidify understanding and use of different syllable types and increase knowledge and use of phonetically irregular words.

Student Student Benchmark Examples, by Grade:

- 5 Discovers spelling of unknown words by sounding out an unknown word and finding it in a dictionary.
Can correctly spell sight words and word families which have been taught previously.
- 6 While spelling unfamiliar multisyllabic words, ensures that every syllable contains at least one vowel.

- 7 Can spell most dictated words (up to 4 syllables) correctly, regardless of complexity.
- 8 Uses internalized knowledge of spelling of prefixes, suffixes and root words in order to spell unfamiliar words containing these parts.

10. Print Concepts, Grammar, Punctuation and Usage

Students will identify, describe, and apply knowledge of the structure of the English language and standard English conventions for sentence structure, usage, punctuation, and capitalization. Students will use knowledge of standard English conventions to edit their writing.

Grades Standard Examples

- 5-8 Identify all parts of speech, types of sentences (e.g., simple, compound, and complex), mechanics (e.g., quotation marks, comma at the end of a dependent clause before a main clause), usage (pronoun reference), and sentence structure (parallelism, properly placed modifiers). Use knowledge of types of sentences, mechanics, usage, and sentence structure to edit their writing.

Specific Student Benchmark Examples, by Grade:

- 5 Correctly pronounces homographs based on the word's meaning (I read the book yesterday / I will read the book later).
Uses Standard English when writing unless using other forms to make a point.
Organizes writing into paragraphs with full sentences and indentation.
Writes without basic punctuation or capitalization errors.
- 6 Ensures that pronoun reference is clear when writing and speaking.
- 7 Effectively uses the semi-colon and colon.
- 8 Understands and uses the past perfect tense.

11. Composition Preparation and Research

Students will use self-generated questions, note-taking, summarizing, précis writing, and outlining to enhance learning when reading or writing. Additionally, students will use open-ended research questions, different sources of information, and appropriate research methods to gather information for their research projects.

Grades Standard Examples

- 5-8 Use knowledge of types of sentences (e.g., simple, compound, and complex), mechanics (e.g., quotation marks, comma at the end of a dependent clause before a main clause), usage (pronoun reference), sentence structure (parallelism, properly placed modifiers), and standard English spelling (homophones) to edit their writing. Formulate open-ended research questions to explore a topic of class interest and devise appropriate ways to document and display the information they gather.

Specific Student Benchmark Examples, by Grade:

- 5 Begins to create an organized structure appropriate to a specific assignment.
Builds an argument that makes sense to the reader and is supported by proof or examples.
- 6 Uses no informal writing in formal writing assignments.
- 7 Gears assignment to the intended audience using appropriate language.
- 8 Uses a combination of different pre-writing strategies to prepare for a research paper (e.g. developing guiding questions, creating an outline, using notecards).

12. Composition

Students will write compositions with a clear focus, developing the composition with logically related ideas and adequate supporting detail.

Grades Standard Examples

- 5-8 Write coherent compositions with a clear focus and supporting ideas, drawing on strategies that are most helpful for developing and organizing their ideas.

Specific Student Benchmark Examples, by Grade:

- 5 Writes stories with detailed beginning, middle, and end.
Write a one-page essay that is reasonably well organized and has few errors of spelling (with use of a dictionary), punctuation, or grammar.
- 6 Write a five-paragraph paper with introduction and conclusion.
- 7 Effectively compares and contrasts two concepts using meaningful supporting evidence.
- 8 When faced with a topic, writes a 7 paragraph first draft that has a clearly written, focused and interesting introduction, body and conclusion.

13. Composition Revision & Assessment

Students will demonstrate improvement in organization, content, paragraph development, level of detail, style, tone, and word choice (diction) in their compositions after revising them. Use appropriate rhetorical, logical, and stylistic criteria for assessing final versions of their compositions or research projects before presenting them to varied audiences.

Grades Standard Examples

- 5-8 Revise their writing to improve organization and diction after checking the logic underlying the order of their ideas and the precision of their vocabulary. Use prescribed criteria from a scoring rubric to evaluate their own and others' compositions, recitations, or performances before presenting them to an audience.

Specific Student Benchmark Examples, by Grade:

- 5 Edits or revises an entire document.
 6 Evaluates structure of own paper based on outline format.
 7 Easily spots redundancies and extraneous material in essays.
 8 Offers feedback on peer writing which includes not just mechanics, but also ideas and organization.

14. Writing in Different Genres

Students will select and use appropriate genres, modes of reasoning, and speaking styles when writing for different audiences and rhetorical purposes.

Grades Standard Examples

- 5-8 Select and use appropriate genres to achieve different rhetorical purposes.

Specific Student Benchmark Examples, by Grade:

- 5 Writes in different genres after reading similar styles (e.g. can write a mystery after reading mysteries, a biography after reading biographies, etc.).
 Writes persuasively.
 Writes research reports, fiction, and stories about themselves.
 Stays focused on topic when writing essays, research papers, etc.
 Writes using action and dialogue.
- 6 Creates images using figurative language such as simile, metaphor, and hyperbole.
- 7 Creates a story based on a theme in which the theme is evident to the reader.

- 8 Writes skillfully in various genres and can help younger students learn to write in these genres.

IV. Students study language history and development.

15. Vocabulary

Students will use a variety of methods to understand new words encountered while reading, including identifying meanings through an understanding of word relationships, and then use these words accurately in speaking and writing. Use knowledge of Greek and Latin roots as well as context clues and glossaries to understand the specialized vocabulary in the content areas, and use these words accurately in speaking and writing.

Grades Standard Examples

- 5-8 Identify and use correctly in all content areas words related as synonyms or shades of meaning, antonyms, and homographs; and words related through word parts and word origins. Use a dictionary or related reference.

Specific Student Benchmark Examples, by Grade:

- 5 Uses vocabulary to describe a wide variety of emotions and feelings. Learns new vocabulary from context while reading and listening and uses it in his/her own speaking and writing vocabulary. Can figure out the meaning of a word which has many definitions by using sentence context.
- 6 Uses a thesaurus to locate synonyms.
- 7 Draws frequent connections between newly acquired and already mastered vocabulary words.
- 8 While reading and listening, actively searches for new vocabulary words, locates their meanings, and attempts to incorporate the words into writing and speaking.

16. History, Development of English, & Dialects

Students will describe and analyze how the English language has developed and been influenced by other languages. Students will describe and analyze how oral dialects differ from each other in English, how they differ from written standard English, and what role standard American English plays in informal and formal communication.

Grades Standard Examples

- 5-8 Describe the origins and meanings of common, learned, and foreign words used frequently in written English. Analyze how dialects associated with informal and

formal speaking contexts are reflected in slang, jargon, and language styles of different groups and individuals.

Specific Student Benchmark Examples, by Grade:

- 5 Uses "school" English except where appropriate.
- 6 Understands that English has roots in several different languages.
- 7 Knows the origins and meanings of some commonly used English words adopted from other languages.
- 8 Discusses the politics of using standard English versus other dialects.

Appendix E The Limited English Proficient Student in the English Language Arts Classroom

In order to give equal educational opportunity to the growing number of students entering New York classrooms with a first language other than English, some accommodations need to be made in teaching the English language arts. These students may be newly arrived from another country, they may have been enrolled in a bilingual program where the language of instruction was not English, or they may speak a non-standard dialect of English. An effective English language arts curriculum helps students develop English language skills so they can participate fully in all academic subjects.

We must always bear in mind that being limited in English is a temporary situation. Students can attain full fluency in English. All teachers need to be aware of the process of second language acquisition. Teachers should be sensitive to the efforts of limited English proficient students to understand and use English. At first, these students may not be as fluent as their native English speaking peers. But their capacity to become fluent will be greatly enhanced by being able to use English within the context of curriculum in the classroom.

Basic Principles for Teachers

1. Use English that is understandable to the student. Second language learners may have difficulty understanding oral or written language if they are unfamiliar with the essential vocabulary or grammatical structures used. Preliminary activities should introduce and explain key vocabulary. Visual aids such as pictures, props, gestures, and dramatizations work well with students of all ages.
2. Build on the learners' background knowledge. Language about familiar things is more comprehensible than language about unfamiliar things. Adaptations of texts and the use

of simpler, slower speech (especially in the first few months of the school year) can help, as long as the content remains challenging and is at the appropriate cognitive level.

3. Provide more explanations for abstract concepts. All students can benefit from meaningful class discussions and working with older students who are fluent in both the native language and English. Classroom resources should include bilingual dictionaries. Second language learners' English fluency indicates their present level of proficiency in the English language, *not* their ability to understand academic subject matter.
4. Give second language learners many opportunities to practice the language in learning subject matter content. Learners become more confident when they are encouraged to experiment and use the English language in all classroom situations--social as well as academic--without the interruptions of constant corrections. As fluency in the second language develops, corrections of pronunciation, grammar, and other language features should be provided, tactfully and consistently.

Who are English Language Learners?

Students who have emigrated to the United States from other countries, can read and write in their first language according to age level and have grade level knowledge of subject matter. (They are most likely to make a rapid transition from first to second language, and they have the capacity to learn subject matter taught in English.)

Students who are refugees may have missed years of schooling and lived through traumatic experiences, and may not yet have learned to read and write in any language. (They may take longer to develop literacy in English due to limited academic backgrounds.)

Students born in the United States in families where English is not the language of the home, may be enrolled in bilingual programs, or may not have received any special help with English. (They tend to have gaps in their language development, i.e., vocabulary items, synonyms, homonyms, words with multiple meanings, idioms, grammatical structures, and pronunciation.)

Classroom Tips for Teachers

Learn the background and English language ability of LEP (Limited English Proficient) students before planning lessons.

Allow English language learners opportunities for joining in large group discussions but do not force participation. It takes time to adjust to an English language environment. Most ESL (English as a Second Language) learners are hesitant to participate in large group discussions at first because they lack fluency and confidence.

Try to provide small group activities and cooperative learning projects, especially in the early weeks.

Give clear and simple directions to limited English proficient students. Ask students to retell directions. Do at least one example with the students before giving them the task. Assign peer tutors or buddies to help limited English students understand directions, work on certain projects, and practice language skills through puzzles, and other games. Expect steady growth in English language skills. However, all students do not progress at the same pace. Expect limited English proficient students to be full participants in English language arts activities with modifications at the beginning of the school year. Use bilingual classroom resources such as bilingual dictionaries, picture dictionaries and one volume English language encyclopedias designed for English learners. Obtain storybooks with accompanying tapes for students to listen and "read along" from the school librarian or library/media specialist. Borrow ideas and materials from ESL staff.

Vocabulary Development

Teach vocabulary in context to assure better retention of meaning. A vocabulary unit built around a social studies or science text or a literary text provides a coherent foundation for meaningful word study.

Provide a language environment that invites student participation. Use stories with repetition, rhyme, predictability, a clear story line, and illustrations that relate to the text. Songs, poems, nursery rhymes, and games will also build vocabulary.

Occasionally give a limited English proficient student or a small group of students different activities from those given to the rest of the classroom. These students will develop better self-confidence if they are given a task they can accomplish and if they understand the teacher's expectations.

Encourage peer tutors, parent volunteers, or older students (cross-age tutoring) to serve as scribes, story-tellers, or conversation partners for limited-English students.

Provide practice on more advanced speech forms, such as homonyms, synonyms, antonyms, words with multiple meanings, idiomatic phrases, prefixes and suffixes, similes, metaphors, and different forms of the same word (e.g., *know, knowledge, knowledgeable; trust, trusting, trusted, trusty, trustworthy*).

The suggestions and examples described above are in no way meant to be comprehensive or definitive. Teachers of English Language Arts know that planning must be flexible to accommodate difficult learning situations at different times in the school year.

Curriculum and teaching strategies will necessarily be different each school year.

Consideration of such factors as the number of limited English proficient students in the classroom, the variety of language backgrounds, and their English literacy skills or lack thereof will determine the particular strategies teachers will employ.

The suggestions under **Classroom Tips for Teachers and Vocabulary Development** are taken from a teacher training unit created by a group of English as a Second Language teachers and bilingual teachers in the Newton, Massachusetts Public Schools. They have been used in workshops for classroom teachers (not specialists) with limited English proficient students.

Interdisciplinary Links

In other classes, Language Arts can be used in the following ways:

Science & Technology: Students use multi media sources such a CD-ROM to report on animals, minerals, the environment and other science topics. They should also use reference books from the library. Other references appear within the text of the standards.

Math & Social Studies: Students read biographies of famous mathematicians enjoy books about math such as *The Math Curse*. Read books about other mathematical systems, for example Egyptian or Roman numerals. In early grades, number-related picture books can be read aloud to students. Students should read and write extensively about historical figures and events, creating original theses and supporting arguments. Specific references appear within the text of the standards.

Art: Study of poetry, plays and theater in Language Arts class to delineate the use of literary mechanisms in the writing and reading styles of the works. Students should understand the power of words and their artistic applications in both formal and informal settings. Specific references appear within the text of the standards.

Health & Home Economics: Students view a program about communities from Sesame Street and chart the community helpers described in the program. Students can write about their feelings on issues such as conflict resolution, anger and adolescence. Other references appear within the text of the standards.

Physical Education: Students will create work-out plans and explain what their nutritional needs are in relation to the plans. They will also outline their reasoning behind the plans that they create.

Community Partnership Links

Students will have library cards the **Brooklyn Public Library**.

They will visit the **Brooklyn Museum of Art** to understand different forms of artistic expression through words as form and function.

Brooklyn authors, theater groups and illustrators will perform at the school and they will attend productions at the **Brooklyn Academy of Music and Studio 651**.

At **Lefferts Homestead** the students can relate literature to early American times.

IV. Social Studies²

Standards in history make explicit the goals that all students should have opportunity to acquire, if the purposes proposed are to be achieved. In history, standards are of two types:

1. Historical thinking skills that enable children to differentiate past, present, and future time; raise questions; seek and evaluate evidence; compare and analyze historical stories, illustrations, and records from the past; interpret the historical record; and construct historical narratives of their own.
2. Historical understandings that define what students should know about the history of families, their communities, states, nation, and world. These understandings are drawn from the record of human aspirations, strivings, accomplishments, and failures in at least five spheres of human activity: the social, political, scientific/technological, economic, and cultural (the philosophical/religious/aesthetic), as appropriate for children.

Historical thinking and understanding do not, of course, develop independently of one another. Higher levels of historical thinking depend upon and are linked to the attainment of higher levels of historical understanding. For these reasons, the standards presented here provide an integration of historical thinking and understanding.

1. History will be the core of the social studies curriculum, in which both the humanities and social sciences come to life. Through the study of history, students will better understand their own society as well as others. Students will understand the relationship between past and present, chronological thinking, the connection between cause and effect and decision-making for the future. History enables students to see how people in other times and places have grappled with the fundamental questions of truth, justice, and personal responsibility, to understand that ideas have real consequences, and to realize that events are shaped both by ideas and the actions of individuals. The geography, civics and economics curriculum will be tied to themes, regions and periods under study in history.

1. Chronological Thinking

- A. Distinguish between past, present, and future time.
- B. Identify in historical narratives the temporal structure of a historical narrative or story.
- C. Establish temporal order in constructing their [students'] own historical narratives.

² A number of sources were compiled to delineate the Social Studies Standards. The basis for these standards are the National History Standards and the History and Social Science Standards, copyright 1995 by the Virginia Board of Education. Used with permission. They have been supplemented with the New York State Standards.

- D. Measure and calculate calendar time.
- E. Interpret data presented in time lines.
- F. Create time lines.
- G. Explain change and continuity over time.

2. Historical Comprehension

- A. Reconstruct the literal meaning of a historical passage.
- B. Identify the central question(s) the historical narrative addresses.
- C. Read historical narratives imaginatively.
- D. Evidence historical perspectives.
- E. Draw upon the data in historical maps.
- F. Draw upon visual and mathematical data presented in graphics.
- G. Draw upon the visual data presented in photographs, paintings, cartoons, and architectural drawings.

3. Historical Analysis and Interpretation

- A. Formulate questions to focus their inquiry or analysis.
- B. Identify the author or source of the historical document or narrative.
- C. Compare and contrast differing sets of ideas, values, personalities, behaviors, and institutions.
- D. Analyze historical fiction.
- E. Distinguish between fact and fiction.
- F. Compare different stories about a historical figure, era, or event.
- G. Analyze illustrations in historical stories
- H. Consider multiple perspectives.
- I. Explain causes in analyzing historical actions.
- J. Challenge arguments of historical inevitability.
- K. Hypothesize influences of the past.

4. Historical Research Capabilities

- A. Formulate historical questions.
- B. Obtain historical data.
- C. Interrogate historical data.
- D. Marshal needed knowledge of the time and place, and construct a story, explanation, or historical narrative.

5. *Historical Issues-Analysis and Decision-Making*

- A. Identify issues and problems in the past.
- B. Compare the interests and values of the various people involved.
- C. Suggest alternative choices for addressing the problem.
- D. Evaluate alternative courses of action.
- E. Prepare a position or course of action on an issue.
- F. Evaluate the consequences of a decision.

II. *Geography* provides an understanding of the human and physical characteristics of the earth's places and regions, how people of different cultural backgrounds interact with their environment, and how conditions and events in distant places affect the US and the student's home community. Geographic themes include location, place, human environment, movement and region. Geographic skills include the ability to use maps, globes, and aerial imagery, to interpret graphs, tables, diagrams, and pictures, to observe and record information, and to access information from various sources.

III. *Civics* instruction will develop in all students the requisite knowledge and skills for informed, responsible participation in public life. Civics instruction provides the basic understanding of politics and government and the practice of skills of good citizenship. Students will learn to develop an understanding of the values and principles of American constitutional democracy. They should be aware of their rights; be willing to fulfill their responsibilities; be able to obtain, understand, and evaluate information relating to the performance of public officials; and be willing to hold those officials accountable.

IV. *Economics* is inherently valuable to the student as the US is recognized as a leader among the nations of the world in large part because of its economic strength. In order to maintain that strength, American citizens must understand the basic economic principles that underlie the market economy. They must understand how our own economic system works, as well as how other systems work. They must learn to make economic decisions about their own lives and become intelligent consumers, employers and workers. A solid grounding will prepare students for the global marketplace and the complex world of tomorrow.

Kindergarten-Two

I. History

1. Chronological Thinking

- On listening to or reading historical stories, myths, and narratives, reconstruct the basic organization of the narrative - its beginning, middle, and end - and place events in their correct sequence. In creating historical narratives of their own, such as their family's, their school's, or community's history, establish a chronology for the story, providing a beginning, middle, and end.
- Develop "picture time lines" of their own lives or of events in the history of their own or another family, using photos from home, drawing pictures to fill any gaps, and arranging the set chronologically on long sheets of butcher paper, along a "clothes line," or pasted on successive pages of a photo album.
- Differentiate broad categories of historical time, such as "long, long ago," "yesterday," "today," and "tomorrow." Measure calendar time by days, weeks, and months.
- Identify examples of change and continuity in their own lives, in the history of their school and community, and in the ways people lived long ago and today.

2. Historical Comprehension

- On listening to or reading historical stories, myths, legends, and narratives, reconstruct the literal meaning of the passage by correctly recounting who was involved; the events that occurred; where they happened; what motives, disclosed in the passage, led to these developments; and the consequences or outcomes that followed.
- Listen to or read historical stories, myths, legends, and narratives imaginatively by developing warranted suggestions of the probable motives, hopes, fears, strengths, and weaknesses of the individuals involved.
- Read geographic symbols and identify the geographic features of places represented in picture maps, air photos, and terrain models of places now and in the past.
- Read and interpret the visual data presented in historical photographs, paintings, and drawings of the people, places, and historical events under study.

3. Historical Analysis and Interpretation

- Formulate questions to direct their investigation and analysis of family artifacts, historical documents, sites, and other records of the past.
- In listening to or reading historical stories, myths, legends, and narratives, compare and contrast the different experiences of people in the narrative and their possible motives, beliefs, and reactions in the situation.

- In listening to or reading historical narratives, myths, legends, and stories, identify the differing motives, beliefs, interests, hopes, and fears of different people caught up in the event, and analyze how those feelings influenced their behaviors.
- In studying family and community life, compare and contrast likenesses and differences between people's lives, activities, beliefs, traditions, family structures, institutions, and so on at various times in the past and present, and among various groups with differing ethnic, religious, and national backgrounds.
- Suggest how things might have turned out differently if a character in a historical story, legend, myth, or narrative had acted differently.

4. *Historical Research Capabilities*

- In obtaining information about family life in the recent and long-ago past, develop questions, conduct interviews, collect family photos and other records from the past, and present their information orally, through illustrations, and through stories.

5. *Historical Issues- Analysis and Decision-Making*

- Examine the problems and dilemmas confronting people in stories and biographies about historical people who "made a difference," and define the problem, the action(s) taken to resolve it, and the consequences or results.
- Formulate an alternative course of action that might have been taken, and analyze how things might have turned out differently if that choice had been made.
- Identify the interests, values, and points of view of different people caught up in a problem situation portrayed in a fable, myth, legend, or selection of historical fiction, and analyze how their interests and values influenced the choices they made.
- Propose a plan of action for solving a problem in their school or local community. What were some of the causes (e.g., in past decisions) that contributed to the problem? How will their proposed action affect others and contribute to resolving the problem? Does it show concern for the rights and welfare of others? Is it fair and just?

II. Geography

1. The student will compare and contrast the relative location of people, places, and things by: Placing objects using near/far, up/down, left/right, behind/in front; and locating land and water on a map using north, south, east and west.
2. The student will use simple maps, globes, and other three-dimensional models to: become aware of the physical shape of our state and nation; and locate areas referenced in historically based legends and stories.
3. The student will identify symbols such as community symbols (traffic signs, traffic lights, street and highway markers, etc.): and map symbols (legend references to land, water, roads and cities).

4. The student will match simple descriptions of work that people do and the names of those jobs with examples from the local community and historical accounts.
5. The student will identify basic economic concepts, including: the difference between basic needs (food, clothing, and shelter) and wants (luxuries); the practice of exchanging money for goods; and examples of people saving for the future in family role play. They will teamwork in class on budget and economic issues.
6. The student will locate the local community, Brooklyn, New York City, Albany, New York State, the United States, the seven continents, and the four oceans on a map and a globe.
7. The student will construct a simple map of a familiar area incorporating cardinal direction, scale, and map symbols.
8. The student will describe how climate, location, and physical surroundings affect the way people live, including their food, clothing, shelter, transportation, and recreation.
9. The student will use maps, pictures, and stories to compare the geography of the local communities in New York City, New York State, the US, and the world.
10. The student will describe our nation as composed of states and locate the following on a map of the United States: Washington, D.C.; the states of New York, New Jersey, Connecticut, Pennsylvania; and major rivers, mountain ranges, and lakes in the United States. The student will identify Asia, the Middle East, North America and Antarctica and identify the areas of the cultures that they have studied there.
11. The student will demonstrate map skills by constructing a simple map of the North American continent, which will include the essential map elements of title, scale, key, directional indicator, and date.

III. Civics

1. The student will demonstrate an understanding that being a good citizen involves important actions by: Taking turns and sharing; taking responsibility for certain classroom chores; taking care of his/her own things (pencils, clothing, papers, and books) and respecting what belongs to others; identifying examples of honesty, courage, patriotism, and other admirable character traits seen in history; and identifying examples of rules and the consequences of breaking them.
2. The student will identify traditionally patriotic symbols such as flags, songs, monuments, etc. for United States and other countries, especially those with large immigrant groups in the Brooklyn including the Caribbean, Asia, Latin America and Africa.
3. The student will describe and compare the making of some class rules by direct democracy (e.g. the entire class votes on the rules) and by representative democracy (e.g. the class elects a smaller group to make the rules).

4. The student will identify the bodies of elected representatives responsible for making local, New York, and United States laws.
5. The student will name the President of the United States and recognize national symbols and traditions of New York and the US.
6. The student will identify examples of the efforts to extend the rights of citizenship in American history and identify the contributions of individuals and groups, including Frederick Douglass, Abraham Lincoln, Susan B. Anthony, Cesar Chavez, and Martin Luther King, Jr.
8. The student will explain the difference between making laws, carrying out laws, and determining if laws have been violated and identify the government bodies that perform these functions at the local, state and national levels.

IV. Economics

1. The student will describe the differences between human resources (people at work), natural resources (water, soil, wood, coal, etc.) used to produce different goods or services.
2. The student will explain the differences between goods and services and will describe how people are producers, sellers and buyers or consumers) of goods and services.
3. The student will explain that limits on resources require people to make choices about producing and consuming goods and services.
4. The student will simulate the exchange of money for goods and services and will identify ways to save money in a family role play.
5. The student will explain the interdependence of producers and consumers in a market economy by describing factors that have influenced consumer demand and describing how producers have used natural resources, human resources, and capital resources to produce goods and services in the past and present.
6. The student will identify examples of making economic choices and will explain what is given up when making a choice; distinguish between money and barter economies; and explain the differences between using cash, checks, and credit to purchase goods and services.

Grades Three and Four

I. History

1. Chronological Thinking

- Group historical events by broadly defined eras in the history of their local community and state.
- Measure calendar time by years, decades, and centuries.

- Construct time lines of significant historical developments in their community and state, identifying the dates at which each occurred and placing them sequentially along a date line that marks at evenly spaced intervals the years, decades, and/or centuries appropriate to the time period under investigation.
- Interpret data presented in time lines by identifying the time at which events occurred and the sequence in which events developed.
- Trace patterns of change and continuity in the history of their community, state, and nation and in the lives of people of various cultures from times long ago until today.

2. *Historical Comprehension*

- Put themselves "in the shoes" of those who were there by describing the past as people of that time reported seeing or experiencing it.
- Read geographic symbols, map scales, and directional indicators in order to obtain such information from historical maps as: the geographic features of the setting in which events occurred, their absolute and relative locations, and the distances and directions involved.
- Read and interpret the visual and mathematical data presented in simple flow charts, pie graphs, and Venn diagrams.

3. *Historical Analysis and Interpretation*

- Identify the author's main points and the purpose or point of view from which the narrative has been written.
- Distinguish between historical facts presented in historical documents and narratives, and the generalizations or interpretations an author draws concerning those facts.
- Suggest how things might have turned out differently if those involved in a historical event in their state or nation's history had chosen a different course of action.
- Analyze historical narratives to identify the facts the author has provided and to evaluate the credibility of the generalization or interpretation the author has presented.
- Compare two or more historical sources and develop a sound interpretation of the issue or event depicted.
- Compare historical biographies or stories written about historical events by contrasting the facts included or omitted in each and the point of view of the author(s) of each.
- Compare the characters and events described in historical fiction with primary sources such as the historic sites themselves; artifacts of the time available in museums; journals, diaries, and photos of the historical figures in the story; and news

articles and other records from the period in order to judge the historical accuracy of the story.

4. *Historical Research Capabilities*

- In researching the history of their local community and state, formulate questions, obtain information from interviews, field trips, historic records available from local newspapers, libraries, government offices, and museums, and use the information they obtain to create data retrieval charts, displays, and historical narratives describing events in the past.

5. *Historical Issues- Analysis and Decision-Making*

- Identify issues and problems in the history of their community and state, the various people involved, and the interests and perspectives of each.
- Evaluate the alternative actions that were proposed or might have been offered for resolving the problem, the consequences of the action taken, and compare with the consequences that might have followed had an alternative choice been made.

II. *Geography*

1. The student will distinguish between meridians of longitude and parallels of latitude and use the equator and prime meridian to identify the Northern, Southern, Eastern, and Western hemispheres and the locations of the ancient civilizations, European nations, and the American immigrant groups, which the student is studying.
2. The student will use maps, tables, graphs, and charts to classify regions with common characteristics, such as deserts.
3. The student will explain the impact of geographic factors in the expansion and development of New York, with emphasis on: the location of Native American, various European settlers and other immigrant groups; and the location and growth of cities (NYC) in relation to the Atlantic Ocean, Hudson Valley, major rivers and Appalachian mountains.
4. The student will use the concepts of absolute location (e.g. direction, reference to neighboring states, and watering features) to locate and identify Brooklyn, New York City, New York state, all 13 colonies, the United States, Western Europe, and West Africa; explain how physical characteristics, transportation routes, climate, and specialization influenced the variety of crops, products and industries and the general patterns of economic growth in New York; illustrate how communities in New York differ in physical features, such as land use, population density, architecture, services and transportation; and construct physical maps and three-dimensional models that include the essential map elements and the geographic regions of New York and the U.S. (Coastal Plains, Appalachian Mountains, Interior Lowlands, Great Plains, Rocky Mountains, Basin and Ridge, Coastal Range.)

III. Civics

1. The student will explain the fundamental ideas and principles that form the foundation of our republican form of government including inalienable rights (“life, liberty, and the pursuit of happiness”), the rule of law, justice, and equality under the law.
2. The student will explain the interaction between rights and responsibilities; why we have rules, laws, and constitutional mandates to protect rights and make sure responsibilities are carried out; consequences for violating them; and the role of citizenship in promoting them. Field trip to Borough Hall. Current events study.
3. The student will identify examples from history of conflicts over rights, how those conflicts were resolved, and the important people who helped resolve them.

IV. Economics

1. Students will understand the nature of budgets and budgeting on a family level, institutional level such as the school, small business or museum, on the local governmental level and the national governmental level.
2. The student will understand the differences between the basic necessities within a given society and luxuries.
3. The student will explain the relationship between taxation and government services.
4. The student will describe the impact of changing modes of transportation and communication on the distribution of goods and services.
5. The student will explore the economic, social, and political life of the New York region, with emphasis on: its political and economic history; characteristics and contributions of various groups of people; the role of money, banking, saving, and credit in the development of New York. They will do a case study on a local business.

Grades Five and Six

I. History

1. Chronological Thinking

- Differentiate autobiographies, biographies, literary narratives, and historical narratives and explain or diagram the temporal structure of events in the story.
- Construct multiple tier time lines, entering information on multiple themes developing over the same years: e.g., important social, economic, and political developments in the history of the thirteen English colonies between the years 1600 and 1800; or comparative developments in the English, Spanish, and French colonies in North America between 1500 and 1800.
- Group (periodize) events by broadly defined eras in the history of the nation or region they are studying.

- Calculate calendar time, determining the onset, duration, and ending dates of historical events or developments.
- Interpret data presented in time lines in order to determine when critical developments occurred and what else was occurring at the same time.

2. Historical Comprehension

- Identify the central question(s) the historical narrative attempts to address and the purpose, perspective, or point of view from which it has been constructed.
- Demonstrate historical perspectives by taking into account the lives of individuals, their values, and outlooks within the historical context.
- Identify specific characteristics of the historical place and time that influenced why events, or actions, developed where and when they did.
- Read and interpret the data presented in two-way and three-way tables, classifications, and data retrieval charts.
- Read geographic symbols, map scales, and directional indicators in order to obtain and interpret such information from historical maps as: the geographical features of the setting in which events occurred, their absolute and relative locations, and the distances and directions involved.
- Read and interpret the visual and mathematical data presented in flow charts, pie graphs, and Venn diagrams.
- Read and interpret the visual data presented in historical photographs, paintings, and drawings of the people, places, and historical events under study.

3. Historical Analysis and Interpretation

- Read historical narratives to identify the author's main points and the purpose or point of view from which the narrative has been written.
- Analyze historical narratives to identify the facts the author has provided and to evaluate the credibility of the generalization or interpretation the author has presented on the basis of the evidence he or she has assembled.
- Analyze or construct causal analyses taking into account two or more factors contributing to the historical event.

4. Historical Research Capabilities

- Studying historical documents to formulate significant questions such as: Who produced the document? When, how, and why? What does the document tell about the person(s) who created it? What do the students need to find out in order to "tell a story" about the document and the people and events connected with it?

5. Historical Issues- Analysis and Decision-Making

- Examine proposals for resolving a problem, compare the possible consequences of two or more courses of action, and analyze their effects on various individuals and groups caught up in the situation.

- Identify the values and moral convictions of those on different sides of an issue and evaluate some of the long-term as well as immediate consequences of the decisions made.
- Apply these same skills to the analysis of a contemporary issue in the students' local community or state which has its roots in past decisions and requires resolution today.

II. Geography

1. The student will describe life in America before the 17th century by identifying and describing the first Americans, their arrival from Asia, where they settled, and how they lived, including Inuits, Anasazi (cliff dwellers), Northwest Indians (Kwakiutl), Plains Indians, Mound builders, Indians of the Eastern Forest (Iroquois, etc.), Incas, and Mayans; explaining how geography and climate influenced the way various Native American tribes lived; and, evaluating the impact of native economies on their religions, arts, shelters, and cultures.
2. The student will trace the roots and evaluate early explorations of the Americas, in terms of: the motivations, obstacles, and accomplishments of sponsors and leaders of key expeditions from Spain, France, Portugal, and England; the political, economic, and social impact on the Native Americans; and the economic, ideological, religious and nationalist forces that led to competition among European powers for control of North America.

III. Civics

1. The students will examine political documents from the past including the U.S. Declaration of Independence, the French Declaration of the Rights of Man and Citizen, and Zapata's "Plan de Ayala." and analyze their significance to on-going notions of citizen rights and responsibilities. Compare citizens' roles in various national contexts.
2. Students will use current events to discuss and analyze the roles of the individual, institutions, corporations, and government in within current national and international events or crises.

IV. Economics

1. The student will describe the economic specialization and interdependence involved in the production of goods and services in various types of communities in the past and compare systems in Greece, Aztec Empire, Kingdom of Benin and Persia.
2. Students will describe the economic development of the U.S. from the colonial period, through the mid-nineteenth century including the role of individual farmers, merchants, artisans, slaves, indentured servants, early factories, immigration and transportation changes.
3. The student will describe the role of governments in the United States economy, with emphasis on provision of public goods and services; protection of consumer rights; the role

of government taxation, borrowing, and spending on individuals and on the production and distribution of goods and services; and the role of the Federal Reserve System and the impact of monetary policy on the money supply and interest rates.

4. The student will compare the American political and economic system to systems of other nations, including Japan, China, and leading Western European nations, in terms of governmental structures and powers; the degree of governmental control over the economy; and entrepreneurship, productivity, and standards of living.

5. The student will compare different ways that money can increase in value through savings and investment (e.g. bank savings accounts, investments in stocks and bonds, and investments in real estate and other valuable goods).

Grades Seven and Eight

1. History

1. Chronological Thinking

- Measure time by millennia and calculate calendar time BC or BCE, and AD or CE.
- Explain patterns of historical continuity and change in the historical succession of related events unfolding over time.
- Impose temporal structure in developing historical narratives, including biographies, historical arguments, and stories by: working forward from some initiating event to follow its development and transformation to some outcome over time; working backward from some issue, problem, or event to explain its causes, arising from some beginning and developing through subsequent transformations over time.

2. Historical Comprehension

- Read and understand primary sources such as the United States Declaration of Independence, the French Declaration of the Rights of Man and Citizen, and Zapata's "Plan de Ayala." Students should recognize that understanding requires not only what the words say, but also where such ideas arose and how they evolved from earlier ideas.
- Determine the causes and consequences of events and demonstrate understanding through various techniques such as peer-teaching, Socratic seminars, written analysis, and graphic organizers (flow charts, clustering, Venn diagrams).
- Draw upon documentary photographs, political cartoons and broadsides, art, and other visual data presented in historical narratives to clarify, elaborate upon, and understand the historical period. The critical examination of sources, such as caricatures of Louis Philippe or Andrew Jackson, photographs by Mathew Brady and Lewis Hine, paintings by Pablo Picasso and Diego Rivera, and Maoist poster art, assists in understanding historical periods.

- Demonstrate the ability to draw warranted conclusions from data presented in political, physical, and demographic maps in appraising the importance of location, region, and movement in history.
- Examine historical records to take into account the context of the historical period in which they were written and to avoid "present-mindedness" (i.e., judging the past solely in terms of the norms and values of today).

3. Historical Analysis and Interpretation

- Determine an author's frame of reference in primary and secondary sources and form analytical questions to examine the data and to determine bias in documents and historical narratives.
- Consult multiple sources reflecting differing interpretations of a historic event or individual.
- Recognize that historical accounts are subject to change based on newly uncovered records and new interpretations. The publication of government documents and formerly suppressed records (e.g., release of secret treaties and "White Papers" in the post-World War I era and the revelations of Stalinist purges), or changing perspectives on movements, may alter previously accepted historical accounts.
- Assess the importance of the individual in history and the importance of individual choices. In assessing the importance of individual action and decision making, for example, students should consider the impact of humanitarian efforts of individuals such as Mother Teresa of Calcutta, or the social consciousness of persons such as Martin Luther King Jr., Jane Addams, or Raul Wallenberg. Students should be able to analyze sources to determine what they reveal about ordinary people as well as recognized leaders and historical events, movements, and trends.
- Critically evaluate the evidence presented in both primary and secondary sources and recognize the danger in drawing analogies without considering different circumstances presented by time and place.

4. Historical Research Capabilities

- Formulate questions to guide and focus research.
- Draw from a variety of primary and secondary sources, including diaries, letters, periodicals, literature, oral histories, artifacts, art, and documentary photographs and films in historical research.
- Interpret the data obtained from historical documents to analyze the historical context in which they were created, and develop a report about it.
- Examine historical accounts to determine what voices are missing from narratives; explain reasons for omissions, and challenge generalizations and interpretations in text accounts.

5. Historical Issues- Analysis and Decision-Making

- Identify factors that led to a historical issue, define the problems involved in its resolution, and explain the motives, values, and varying perspectives surrounding the problem. For example, students might investigate background causes that led Alexander II to abolish serfdom in Russia and Lincoln to issue the Emancipation Proclamation. They should explore various attitudes regarding these policy decisions, the factors that led to their enactment, and form warranted value judgments regarding the timing and the scope of these decisions.
- Use primary source materials to assume the role of an individual and explain a policy issue from the perspective of that individual within the context of time and place.
- Analyze individual decisions and grapple with the personal dilemmas encountered in pursuing a course of action. Students should be able to examine choices such as Susan B. Anthony's decision to vote in the presidential election of 1872, Mohandas Gandhi's decision to organize the 1930 salt march, or Rosa Park's decision to confront Jim Crow laws in Montgomery, Alabama.
- Reach value judgments regarding the course of action taken by individuals in history by weighing the influence of attitudes, values, and alternative options of that particular time and place. For example, in analyzing whether delegates at the Philadelphia Convention of 1787 should have taken a firm stand against slavery, thereby confronting threats by South Carolina and Georgia to withdraw support for the Constitution, students should be able to identify the issues involved, compare the alternative perspectives and ethical considerations of the delegates on issues of slavery and union, and assess the compromises reached.
- Analyze the historical circumstances and reach warranted ethical judgments concerning such events as Hitler's "final solution" and Pol Pot's "killing fields."

II. Geography

1. The student will describe early physical and cultural development of mankind from the Paleolithic Era to the revolution of agriculture, with emphasis on the impact of geography on hunter-gatherer societies; characteristics of hunter-gatherer societies; tool making and use of fire; technological and social advancements that gave rise to stable communities; and how archeological discoveries are changing our knowledge of early peoples.
2. The student will compare selected ancient river civilizations, including Egypt, Mesopotamia, the Indus Valley, and Shang China, and other ancient civilizations (such as the Hebrew and Phoenician kingdoms and the Persian Empire), in terms of location in time and place; the development of social, political, and economic patterns; the development of religious traditions; and the development of language and writing.

III. Civics

- 1. The student will compare the election process at the local, state, and national levels of government, with emphasis on nomination and promotion of candidates for elective office; similarities and differences between the major political parties; voter turnout; evaluating accuracy of campaign advertising; and distinguishing between reporting, analysis, and editorializing in the media, and recognition of bias. Any current elections should be the focus of class debate and discussion.**
- 2. The student will compare the policy-making process at the local, state, and national levels of government, with emphasis on the basic law-making process within the respective legislative bodies; the interaction between the chief executives and the legislative bodies; the functions of departments, agencies, and regulatory bodies; the roles of political parties at the state and national levels; the ways that individuals and cultural, ethnic, and other interest groups can influence government policymakers; and the impact of the media on public opinion and policymakers. A topical discussion of a recent press report of an interest group activity should become a class discussion.**
- 3. The student will distinguish between the judicial systems established by the New York and United States Constitutions, with emphasis on the organization and jurisdiction of New York and United States courts; the exercise of the power of judicial review; the process of bringing and resolving criminal and civil cases in New York's judicial system; and the function and process of the juvenile justice system in New York. Visits to the court and observing of trials and judicial procedures will be integrated into classroom study.**
- 4. The student will demonstrate an understanding of the rights and responsibilities of citizens in America locally and globally by describing ways individuals participate in the political process, such as registering and voting, communicating with government officials, participating in political campaigns, serving on juries and in voluntary appointed positions.**

IV. Economics

- 1. The student will explain the Great Depression and its effects, with emphasis on weaknesses in the economy, the collapse of financial markets in the late 1920's, and other events that triggered the Great Crash; the extent and depth of business failures, unemployment, and poverty; the New Deal and its impact on the Depression and the future role of government in the economy.**
- 2. The student will describe the economic, social, and political transformation of the United States since World War II, the technology revolution and its impact on communication, transportation, and new industries; the consumer economy and increasing global markets; the impact of governmental social and economic programs; the growth of federal income tax revenues and government spending and the role of the Federal Reserve System.**

3. The student will understand United States foreign policy since World War II, with emphasis the global economy, expanding networks or imports, exports. Trade agreements and their impact on production, consumption and labor
4. The student will explain the structure and operation of the United States economy as compared with other economies (Nigeria, Mexico and Brazil) with emphasis on the basic concepts of free market, as described by Adam Smith, and of communism, as described by Karl Marx; the concepts of supply and demand, scarcity, choices, trade-offs, private ownership, incentives, consumer sovereignty, markets, and competition; private and public financial institutions; the economic impact of consumption, saving and investment, and borrowing by individuals, firms, and government; and the differences between free market, centrally planned, and mixed economies.

The history curriculum would include three curricular options for grades K-4:

- 1.A "here - there - then" approach: This approach first centers instruction in each of these grades in the child's immediate present and then each year reaches out in space and back in time to enlarge children's breadth of geographic and historical understandings to distant places and times long ago. From kindergarten onward, this model introduces children to peoples and cultures throughout the world, and to historical times as distant as the earliest human memories, contained in myths, legends, and heroic tales, which are part of the cultural heritage of the world.
- 2.A modification of the "expanding environments" approach to social studies: This approach includes, each year, rich studies in history and literature that connect with grade 1 studies of the family, grade 2 studies of the neighborhood, grade 3 studies of the community, and grade 4 studies of the state, but that expand and deepen these studies far beyond their traditional emphasis on the "here and now." Thus, this modified model compares family, community, and state today with family life long ago, and with the people and events of earlier times in the historical development of their community and state. Fully expanded, this model also compares family and community life in the United States with life in the many cultures from which our increasingly diverse population has come, and with the historical experiences and traditions that are part of those cultures.
- 3.A "literature-centered" approach: This approach focuses instruction each year on compelling selections of literature appropriate for children from many historical periods, and then expands those studies to explore more deeply the historical times they bring to life. This pattern is, essentially, a child's version of the humanities-centered "Great Books" approach to

curriculum-making, with literature used to take children into adventurous and deeply engaging excursions through a variety of historical eras and cultures.

In developing standards for history in grades K-4, we sought an organizational structure flexible enough to support programs in history using these three curriculum approaches. The topics to be covered in K-4 are:

Topic 1: Living and Working Together in Families and Communities, Now and Long Ago

Topic 2: The History of Students' Own State or Region

Topic 3: The History of the United States: Its Democratic Principles and Values and the Peoples from Many Cultures Who Have Contributed to Its Cultural, Economic, and Political Heritage

Topic 4: The History of Peoples of Many Cultures around the World

Students in K-4 would meet the following content standards:

Topic 1 Students would demonstrate understanding of: family life now and in the past; the different ways people of diverse racial, religious, and ethnic groups, and of various national origins have transmitted their beliefs and values.

Topic 2 Students would demonstrate understanding of: the history of their local community; how communities in North America varied long ago; the history of indigenous peoples who first lived in their state or region; the first European, African, and/or Asian-Pacific explorers and settlers who came to their state or region; the various other groups from regions throughout the world who came into New York or region over the long-ago and recent past; the ideas that were significant in the development of New York state and that helped to forge its unique identity.

Topic 3 Students would demonstrate understanding of: how the United States government was formed and of the nation's basic democratic principles set forth in the Declaration of Independence and the Constitution; ordinary people who have exemplified values and principles of American democracy; historic figures who have exemplified values and principles of American democracy; events that celebrate and exemplify fundamental values and principles of American democracy; national symbols through which American values and principles are expressed.

Topic 4 Students would demonstrate understanding of: the movements of large groups of people into their own and other states in the U.S. now and long ago; folklore and other cultural contributions from various regions of the U.S. and how they help to form a national heritage; the cultures and historical developments of selected societies in such places as Africa, the Americas, Asia, and Europe; great world movements of people now and long ago;

changes in transportation and their effects; changes in communication and their effects; the contributions of women and peoples of color from across the globe.

GRADES 5 – WORLD HISTORY – ANCIENT CIVILIZATIONS

- The student will describe early physical and cultural development of mankind from the Paleolithic Era to the revolution of agriculture, with emphasis on the impact of geography on hunter-gatherer societies; characteristics of hunter-gatherer societies; tool making and use of fire; technological and social advancements that gave rise to stable communities; and how archeological discoveries are changing our knowledge of early peoples.
- The student will compare selected ancient river civilizations, including Egypt, Mesopotamia, the Indus Valley, and Shang China, and other ancient civilizations (such as the Hebrew and Phoenician kingdoms and the Persian Empire), in terms of location in time and place; the development of social, political, and economic patterns; the development of religious traditions; and the development of language and writing.
- The students will be introduced to the history, social, governmental and economic features of the Kingdom of Benin in West Africa and the Aztecs in Meso-America. They will compare through art, music, legal documents, government structure, customs, commerce and technology these cultures to colonial America. They will write a research paper on an original personal thesis explaining the similarities and differences of these groups based on their findings.

GRADE 6 – U.S. HISTORY TO 1877

Era 1 - THREE WORLDS MEET (BEGINNINGS TO 1620)

- Demonstrate understanding of: commonalities, diversity, and change in the pre-existing Native societies of the Americas from their beginnings to 1620; the characteristics of western European societies in the age of exploration; the characteristics of West African societies in the era of European contact; how the stages of European oceanic and overland exploration from 1492 to 1700 occurred amid international rivalries; the Spanish conquest of the Americas.

Era 2 - COLONIZATION AND SETTLEMENT (1585-1763)

- Demonstrate understanding of: how diverse immigrants affected the formation of European colonies; family life, gender roles, and women's rights in colonial North America; the European struggle for control of North America; the rise of individualism, the roots of representative government, and how political rights were defined; religious diversity in the colonies and how ideas about religious freedom evolved; colonial economic life and labor

systems in the Americas; economic life and the development of labor systems in the English colonies; African life under slavery.

Era 3 REVOLUTION AND THE NEW NATION (1754-1820s)

- Demonstrate understanding of: the causes of the American Revolution; the principles articulated in the Declaration of Independence; the factors affecting the course of the war and contributing to the American victory; how American relations with European powers affected the character and outcomes of the American Revolution; the revolution's effects on social, political, and economic relations among different social groups; government-making, at both national and state levels; the issues involved in the creation and ratification of the United States Constitution and the new government it established; the guarantees of the Bill of Rights and its continuing significance; the development of the first American party system.

Era 4 EXPANSION AND REFORM (1801-1861)

- Demonstrate understanding of: the international background and consequences of the Louisiana Purchase, War of 1812, and the Monroe Doctrine; federal and state Indian policy and the strategies for survival forged by Native Americans; the ideology of Manifest Destiny, the nation's expansion to the Northwest, and the Mexican-American War; how the factory system and the transportation and market revolutions shaped regional patterns of economic development; the first era of American industrialization; the rapid growth of slavery after 1800 and how African Americans coped with the "peculiar institution;" the settlement of the West; the changing character of American political life in "the age of the common man;" how the debates over slavery influenced politics and sectionalism; the abolitionist movement; how the Second Great Awakening, transcendentalism, and utopianism affected reform.

Era 5 CIVIL WAR AND RECONSTRUCTION (1850-1877)

- Demonstrate understanding of: how the North and South differed and how politics and ideologies led to the Civil War; how the resources of the Union and Confederacy affected the course of the war; the social experience of the war on the battlefield and homefront; the political controversy over Reconstruction; the Reconstruction programs to transform social relations in the South; the successes and failures of Reconstruction in the South, North, and West.

GRADES 7 – U.S. HISTORY SINCE 1877

Era 6 THE DEVELOPMENT OF THE INDUSTRIAL UNITED STATES (1870-1900)

- Demonstrate understanding of: the connections between industrialization, the rise of big business, and the advent of the modern corporation; how rapid industrialization affected urban politics, living standards, and opportunity at different social levels; how agriculture, mining, and ranching were transformed; how industrialism, urbanization, large-scale agriculture, and mining affected the ecosystem and initiated an environmental movement; the sources and experiences of the new immigrants; Social Darwinism, race relations, and the struggle for equal rights and opportunities; new cultural movements at different social levels affected American life; the rise of national labor unions and the role of state and federal governments in labor conflicts; how Americans grappled with the social, economic, and political problems of the late 19th century; various perspectives on federal Indian policy, westward expansion, and the resulting struggles; the roots and development of American expansionism and the causes and outcomes of the Spanish-American War.

Era 7 THE EMERGENCE OF MODERN AMERICA (1890-1930)

- Demonstrate understanding of Progressivism at the national level.
- Demonstrate understanding of the limitations of Progressivism and the alternatives offered by various groups; how the American role in the world changed in the early 20th century; the causes of World War I and why the United States intervened.
- Demonstrate understanding of the impact at home and abroad of United States involvement in World War I; cultural clashes and their consequences in the postwar era; how a modern capitalist economy emerged in the 1920s; the development of mass culture and how it changed American society.

Era 8 THE GREAT DEPRESSION AND WORLD WAR II (1929-1945)

- Demonstrate understanding of: the causes of the crash of 1929 and the Great Depression; how American life changed during the depression years; the presidency of Franklin D. Roosevelt and the New Deal; the impact of the New Deal on workers and the labor movement; opposition to the New Deal; the international background of World War II; World War II and how the Allies prevailed; the effects of World War II at home.

Era 9 POSTWAR UNITED STATES (1945 TO EARLY 1970s)

- Demonstrate understanding of: the extent and impact of economic changes in the postwar period; the political debate over continuation of the New Deal.
- Demonstrate understanding of the New Frontier and Great Society and analyze their domestic accomplishments; the origins and domestic consequences of the Cold War.
- Demonstrate understanding of U.S. foreign policy in Africa, Europe, the Middle East, and Latin America; the foreign and domestic consequences of U.S. involvement in Vietnam; the "Second Reconstruction" and analyze its advancement of civil rights.

- Demonstrate understanding of how Asian Americans, Mexican Americans and Native Americans advanced the movement for civil rights and equal rights; how women advanced the movement for civil rights and equal rights; the contributions of the Warren Court in advancing civil liberties and equal rights.

Era 10 CONTEMPORARY UNITED STATES (1968 TO THE PRESENT)

- Demonstrate understanding of: Nixon's domestic agenda and the Watergate Affair; domestic policy issues in contemporary American society; major foreign policy initiatives; continuing reform agendas; the new immigration and internal migration; changing religious diversity and its impact on American institutions and values; the modern American economy; contemporary American culture.

GRADE 8 – WORLD HISTORY MODERN/COMPARATIVE STUDIES

- Economic, political, and cultural interrelations among peoples of Africa, Europe, and the Americas,
- How Asian societies responded to the challenges of expanding European power and forces of the world economy
- The causes and consequences of the agricultural and industrial revolutions, 1700-1850
- The transformation of Eurasian societies in an era of global trade and rising European power, 1750-1850
- Imperialism and the transformation of global trends from 1750 to 1914/
- The causes and global consequences of World War I
- The search for peace and stability in the 1920s and 1930 and the causes and global consequences of World War II
- Current international relations, global economic, social, cultural, and political trends
- Student will improve skills in historical research and geographical analysis by identifying, analyzing, and interpreting primary sources and secondary sources to write a comparative research paper in world history.

Interdisciplinary Links

Linking Social Studies to Related Studies in Literature, Math, Science and the Arts

Two factors encourage linking history to related studies in the social studies, literature, math, science and the arts in grades K-5:

1. History itself is a highly integrative field, engaging children in studies not only of the people and events in the history of their community, state, nation, and world, but opening as well the study of the geographic places in which these events occurred; the ideas, beliefs, and values that influenced how people acted in their daily lives; the rules, laws, and institutions they established and lived by; the oral traditions and literature, music, art, architecture, and dance they created; and the technological and scientific developments they invented, or adopted, in their quest to improve daily life. In short, studies in history necessarily include geographic, economic, political, social, and scientific studies, as well as studies in the arts.

2. Teachers of grades K-5 normally are responsible for the entire curriculum and therefore are uniquely able to schedule activities that cut across subject lines and develop standards from two or more fields in a single lesson. Thus, lessons in literature can include literary selections from historical fiction, biography, and other readings important to the history curriculum as well as to the language arts. In turn, activities in creating group stories in history (K-1) and individual historical narratives, letters, journals, and so on (grades 2-5) in children's studies of history are important in furthering standards in English as well as in history. So, too, can lessons simultaneously develop certain standards in history and in civics, in geography, in economics, in the arts, and - to some degree - in mathematics and science.

Developing the interdisciplinary or integrated curriculum is not without pitfalls. We are aware of some of the problems that led to the widespread withdrawal from these approaches in the curriculum reform movement of the 1960s. One safeguard is to keep clearly in mind the unique characteristics of each field, and to respect those characteristics in the curriculum plan to capitalize upon the natural affinities among these fields. Below are some examples of how we envision making social studies curriculum interdisciplinary.

Social Studies Links with Literature:

History is a narrative discipline that, especially in the early grades, has much in common with the folktales, fairytales, and stories of individuals' lives that are part of the language arts curriculum. In many cases literature can offer introductions and insights to other cultures that enrich social studies.

In the higher grades, period writings -- memoirs, fiction, essays, plays, poems, and speeches - open a window into the thoughts, values, and daily lives of earlier eras and foreign cultures that cannot be attained through history books alone. The following are examples of literature that could accompany the social studies curriculum:

GRADES K-2

• Books such as *The Keeping Quilt* by Patricia Polacco, *Thy Friend, Obadiah* by Burton Turkle, *From Me to You* by Paul Rogers, *The Patchwork Quilt* by Valerie Flournoy, and *The Old, Old Man and the Very Little Boy* by Kristine L. Franklin compare the cultural similarities and differences in clothes, homes, food, communication, technology, cultural traditions, and other aspects of family life between families now and in the past.

Draw upon stories about the experiences of immigrants in the recent past in order to retell the stories and discuss the good and bad experiences of the people who have moved to New York. Possible sources are *Angel Child, Dragon Child* by Michele Maria Surat, *The Land I Lost* by Hyunh Quang Nhoung, *Making a New Home in America* by Maxine Rosenberg, *How Many Days to America?* by Eve Bunting, *I Speak English for My Mom* by Muriel Stark, and *Grandfather's Journal* by Allen Say.

GRADES 3-4

Draw upon books such as *Dogsong* by G. Paulson to compare the life and culture of Native Americans long ago and today.

Draw upon various sources of folklore to understand various cultures such as: *Dr. Coyote: A Native American*, *Aesop's Fables* by John Bierhorst, *The Jack Tales* by Richard Chase, *The Pennsylvania Dutch: Craftsmen and Farmers* by Eva Deutsch Costabel, *The Tales of Uncle Remus: The Adventures of Brer Rabbit* by Julius Lester, *Where Indians Live: American Indian Houses* by Nashone, *American Tall Tales* by Mary Pope Osborne, *You and Me and the Heritage Tree: Children's Crafts From 21 American Traditions* by Phyllis Fecrotte, *I'm Going to Sing: Black America - Spirituals, Volume II* by Ashley Bryan; and *From Sea to Shining Sea: A Treasury of American Folklore and Folk Songs* compiled by Amy L. Cohn.

GRADES 5-6

The stories of Mansa Musa and his great pilgrimage to Mecca in 1324 are a source to analyze the great wealth of Mali, its trade in gold and salt, and the importance of its learning center at Timbuktu.

West African proverbs, folk tales and artifacts help illustrate and explain traditional family living and gender roles.

Historical fiction and biographies such as *The Double Life of Pocahontas* by Jean Fritz; *The Serpent Never Sleeps: A Novel of Jamestown and Pocahontas* by Scott O'Dell and John Billington; *Friend of Squanto* by Clyde Robert Bulla; *Sign of the Beaver* by Elizabeth Speare; and *Squanto* by Fennie Ziner examine the interaction of American Indians and early European settlers.

Stories such as *If You Lived in Colonial Times* by Ann McGovern, *How the Colonists Lived* by David McKay, and *Colonial Living* by Edwin Tunis help build an understanding and appreciation of life in colonial America.

GRADES 7-8

The Horatio Alger stories reveal the influence of popular literature on the notion of the "American Dream."

The perspectives of ranchers, farmers, and miners in the West are revealed in novels such as *A Lantern in Her Hand* by Bess Streeter Aldrich, *Prairie Songs* by Pamela Conrad, *The Obstinate Land* by Harold Keith, and *Shane* by Jack Schaefer.

The poetry of Langston Hughes and Claude McKay provide insights to African American experiences in the 1920s.

Examine the controversy over the Vietnam War using novels such as *And One for All* by Theresa Nelson and *After the Dancing Days* by Margaret Rostkowski.

Social Studies Links with the Arts:

In the early grades the arts -- music, dance, puppets, masks, and crafts -- can be used to introduce students to Asian, African, Latin American, Native American and Early American cultures and to help place history within a cultural context. The materials used for crafts, musical instruments, and costumes can also be used to explore geographic characteristics. People, events, and actions from songs and dance are often tied to historical pasts or legend and can offer another source of historical information for students to analyze and compare with other sources.

In the higher grades students can study the arts of other cultures and periods to supplement other historical sources and expand their understanding the peoples and eras they are studying.

The following are some examples of art projects that could link to the social studies curriculum:

GRADES K-2

Students learn and discuss music and songs that tell legends and historical events
 Students learn about and play musical instruments from other cultures including Native American, African, Asian, Middle Eastern, and Latin American

GRADES 3-4

Students create and compare masks, puppets and costumes from a wide variety of cultures and time periods.

Students learn music and dance forms from Asia, Africa, Latin America, Middle East, and early America, including Native American.

GRADES 5-6

Students study early Egyptian, Asian and Latin American arts including sculpture, painting, architecture, and pottery.

Students study early American art and craft styles, materials, and methods of production, including folkarts such as quilts

GRADES 7-8

Students analyze the origins, importance, and impact of music on various periods in 20th century U.S. including jazz, blues, musical theater, and rock and roll.

Students explore links between twentieth century art movements and the social, political, and economic conditions that fostered them including impressionism, cubism, abstract art, and Soviet Realism.

Social Studies Links to the Sciences:

Technological developments, scientific discoveries, and natural phenomena are an integral part of our history and often provide key turning points the development of civilizations. Within the context of U.S. and world history, students can expand their understanding of physics, engineering, medicine, and the environmental sciences by combining science experiments with the study of related events in the past. The environmental sciences are also key to understanding geography and vice versa.

The following are some examples of science projects that could link to the social studies curriculum:

GRADES 3-4

Environmental studies of the local area are linked to the economic and social development of Brooklyn.

The study of earth sciences, water resources and weather patterns are factors in urban development and continue to play a role in local government services.

GRADES 5-6

The engineering and technology used in ancient civilizations to construct structures such as the pyramids, the Great Wall of China and Mayan cities.

A study of the environmental changes in North America with the increase in European settlement.

GRADES 7-8

The science, engineering and environmental impact of the development of atomic weapons.

The global economic, cultural, and social impact of environmental changes over the past 200 years.

The global impact of epidemics and medical improvements on various cultures throughout history.

Social Studies Links to Math:

Economics and geography offer a wide range of links to mathematic principles and practices including statistics, geometry, and algebra. Students will be able to apply their math skills in these fields as well as link the development of mathematic principles to the cultures and historical eras they were developed.

Community Partnership Links

A number of local institutions and businesses will assist teachers in making the social studies curriculum lively and meaningful for students. The interactions with community partners allow students to have “hands-on” experiences with historical documents and artifacts, and civics and economic processes.

The following are some community institutions and groups we envision utilizing in the social studies curriculum and examples of the topics they could address:

Lefferts Homestead located in Prospect Park will offer a wide range of links to the social studies curriculum including: a hands-on understanding of colonial and early nineteenth century life; information about the geography and development of Brooklyn; information about family and community life in Brooklyn; an understanding of farming and its role in the economy and society. Grades 1-4

Weeksville Society is another history resource the school will utilize to trace the history of African Americans in New York; the role of slavery in the region; the history of free blacks; and the changing nature of African American community life. Grades 4-6

Brooklyn Historical Society offers student the opportunity to research and read primary documents related to local history, discussions that explore the nature of presenting local history to the public through exhibits and public programs; information on how local history is preserved and archived for future generations. Grades 6-8

Brooklyn Museum of Art offers students an in-depth study of the cultures of ancient and more recent civilizations including Egypt, China, Incas, Native American, and South Asian; it also offers students an understanding of the role and possibilities of art museums in community life; and an understanding about the acquisition, preservation, and exhibition of works of art that represent other cultures. Grades 5-8

Brooklyn Public Library offers student access to period newspapers and magazines that reflect local history and community life; special collections of primary documents on Brooklyn history; and an understanding on the changing nature of information resources and the civic role of access to information in a democracy. Grades 2-8

Local Businesses & Banks serve as a resource for studying local economics; community investments; mortgages; budgeting; small scale manufacturing processes; retail selling and

the differences between sole proprietorship, franchises and chain stores; labor relations and job opportunities. Grades K-8

Federal Court, Kings County Court, Borough Hall and Elected Officials will offer students an understanding of the judicial system; the functions of local government; municipal and social services; and the electoral process. Grades 4-8

The Transit Museum offers information on the changing nature of transportation in New York City and the role of private enterprise and government in the development and expansion of public transportation. Grades 4-8

Students will participate in heritage programs around the city, especially in connection with special celebrations such as Black History Month, Women's History Month, Discovery Day, Cinco de Mayo, etc.

V. Computer/ Technology

The early inclusion of computers and appropriate software in the classroom activities of all CPCS students is an essential part of the school plan. Eventually, all classrooms will be equipped with Internet access. We are currently working with a computer consultant to develop a staff-development model to implement technology networking. We want to enable all teachers to design their own computer programs to support curricula in their classrooms.

We are committed to utilizing computer equipment in the classroom as effective and efficient tools for instruction. Hardware and software requirements for student programs will vary depending on the age of the children as well as the content area of a specific course. Classroom-based computer resources will vary.

Each teacher will have a home computer to use while teaching at our school. This will give our faculty the flexibility to develop school materials, communicate with colleagues and families, and conduct Internet research at their convenience. These computers will be networked so that a teacher can plug into the school network. In addition, the units will have video and sound cards to enable teachers to create an "electronic chalkboard" for use in the classroom.

Eventually, we hope to have one computer per six students in each classroom. This configuration is conducive to small group instruction as well as independent work for students. By rotating students through a classroom computer center, the teacher can provide her students daily access to equipment while also providing direct instruction to smaller groups of children, hence, more focused and individualized instruction. Computer projects will be integrated into the various subject areas and will include class magazines and books, essays, multimedia and Internet web pages.

Our networking goal during the startup phase of the school is to provide staff and faculty access to high-speed internet service. All faculty and staff can connect their computers to the network for simultaneous Internet access. An Internet home page, email groups and topical bulletin boards will be established at the school to facilitate communication and administration. We will rely on web-based email accounts so that faculty and staff can have access to their accounts without dialing into a central server. Training and support will be provided.

As the school grows and the facilities are prepared for the school we will create a networking infrastructure that is comprehensive and flexible – both in terms of potential future uses of space as well as changes in technology. Each classroom will be outfitted with state-of-the-art wiring and electronics, including at least two connections for each student work station and a connection for an electronic chalkboard. Additionally,

technical support will be contracted out to a part-time person. Eventually, we anticipate hiring a part time tech support specialist two days per week.

Our initial technology priority is to develop a communication infrastructure for our faculty and staff. Computers will play a key role in the development, implementation and assessment of the school's instructional program. We will train and support the faculty to develop policies and programs via "virtual meetings". Participants will contribute to email and online bulletin board discussions over the course of a given timeframe. This will alleviate scheduling problems associated with large group meetings. In addition, the bulk of administrative communication can be handled through email thereby saving the time and resources required to copy and distribute memos. A school web page will archive school information including curricula, school policies and calendars.

Teachers will regularly model effective uses of technology. By linking their laptop computer to the classroom television, teachers will create an "electronic chalkboard." This tool can enhance instruction across the curriculum. As part of the writing process, for instance, students together can write, edit, revise and present class stories and reports. The students will be able to watch the writing process in action and see how computers are used to draft and revise documents. In math and science, teachers can chart and graph a variety of information and show how data can be represented in a variety of ways.

Young students will be encouraged to use a variety of computer skills including the use of menus and buttons, selecting and moving text, ways to save and open files, and more. By the time students are expected to use standard software applications, they will have a good working knowledge of the programs.

Teachers will be encouraged to communicate regularly with families. Home computers will make it easier for teachers to develop class newsletters and letters, as well as send and receive email from families who have the technology. Teachers will utilize computer-based assessment tools and databases. Our faculty will develop electronic portfolios for each student and will develop reporting tools that provide families with greater detail about the progress of their children.

Our goal is to prepare students for a technologically sophisticated world by using adult software to create their own projects. Our technology program will emphasize real life uses of computers rather than utilize children's software. Once students reach the third grade, we will provide opportunities, training and support for them to use computers in ways that are interesting, creative and productive. We will develop curriculum projects that use word processing, spread-sheet and data base development, desktop and web page publishing and telecommunications. Teachers will integrate subject areas (e.g., social

studies and science) with language and computer skills to develop projects that culminate in meaningful final products.

I. Students will learn computer care, maintenance and etiquette.

II. Students will learn computer vocabulary.

III. Students will learn keyboarding skills.

IV. Students will learn basic skills and file management.

V. Students will learn word processing.

VI. Students will learn data management.

VII.. Students will learn telecommunications and Internet research.

VII.I. Students will learn desktop publishing, graphic design and web page development.

	Grade Started	Grade(s) Mastered
Computer Care, Maintenance and Etiquette		
Uses the keyboard and mouse correctly and respectfully.	K	K-8
Follows "safety zone" guidelines: Keeps liquids, glitter, magnets, etc., away from the computers.	K	K-8
Always is careful and thoughtful near equipment.	K	K-8
Logs off and cleans up area promptly and quietly. Closes files, exits software, puts away floppy disks and CD-ROMs, clean up the desk area, covers keyboard and pushes in the chair.	K	K-8
Shares keyboard and mouse when working with a partner.	K	K-8
Follows printing policies.	1	K-8

Shuts down the computer correctly.	3	3-8
Troubleshoots common hardware and printing problems: paper jams, loose cables, etc.	4	5-8
Runs routine maintenance software and understands the purpose of each tool.	6	8
Identifies by sight and explains the purpose of various computer components: RAM, motherboard, hard drive, CD-ROM, floppy drive, etc.	7	8
Computer Vocabulary		
Monitor, mouse, keyboard, floppy disk, CD-ROM	K	K-8
Cursor, software (application, program), hardware, memory, hard drive, network, menus, and Internet.	3	4-8
RAM, file server, computer virus, backup, operating system (Windows, Macintosh), file types	4	5-8
Internet language: HTML, Java, links, hypertext, URL (universal resource locator), search engine.	4	5-8
File size language: e.g. kilobytes, megabytes, gigabytes	5	5-8
Keyboarding Skills		
Is familiar with position of all keys including capital letters and punctuation. May use only two fingers and look at keyboard while typing.	3	3-5
Uses two hands on appropriate keys.	5	7-8
Composes drafts on the computer.	6	8
Maintains a 25 word-per-minute typing speed with 90% accuracy.	7	7
Maintains a 35 word-per-minute typing speed with 90% accuracy.	8	8
Basic Skills and File Management		
Logs onto network and retrieve desired file.	3	3
Can use a CD-ROM.	3	3
Renames files (when necessary).	3	4
Chooses the appropriate software application for the job.	3	4
Selects appropriate software for the job.	4	4-8
Prints file to any printer on the network.	4	4
Can use a floppy disk as well as the file server to store files.	4	4
Converts file types (using "save as" features).	5	6
Creates and manages sensible directories and sub-directories to	6	7-8

organize files.		
Manages and backs up old files.	7	7-8
Can assemble a computer system including keyboard, central processing unit and hard drives, mouse, modem, printer, monitor and peripherals.	7	8
Word Processing		
Indents paragraphs using the tab key.	3	3-8
Centers titles and text using center button.	3	3-8
Uses spell check.	3	3-8
Moves cursor using mouse or keyboard.	3	3-8
Selects blocks of text using the mouse.	3	4-8
Formats and reformats the fonts, size and style of text.	3	4-8
Inserts or moves text using cut, copy and paste.	4	4-8
Inserts footnotes, header and footer information (e.g. page numbers, file paths, date, file name)	5	5-8
Inserts and formats tables into word processing documents.	5	6-8
Customizes page set-up as needed.	5	6-8
Uses paragraph and character style settings to format text.	6	8
Organizes and rearranges documents using the outlining feature.	6	8
Links and embeds graphics and spreadsheet files into a word processing file.	8	8
Data Management		
Creates pie, bar and line graphs using spreadsheet templates	5	6-8
Uses spreadsheet language: columns, rows, headings, calculations, sum, totals, etc.	5	6-8
Constructs simple spreadsheets.	5	6-8
Creates multi-sheet data charts.	6	7-8
Assigns calculations to spreadsheet cells.	6	7-8
Formats individual cells, rows and columns.	5	
Moves data to different positions on a sheet.	6	7-8
Select the appropriate chart or graph for a given project.	6	7-8
Can select sub-groups of data to create charts and graphs.	6	7-8
Uses the appropriate numeric style for a given cell (currency, decimal point, date, etc.).	6	7-8
Creates simple data base	6	7-8
Generates reports from a database	6	7-8

Telecommunications and Internet Research		
Understands and follows Internet policies and practices.	4	4-8
Analyzes and evaluates quality and authenticity of information.	4	6-8
Understands and follows copyright laws: Outlines and paraphrases information or provides appropriate citations when quoting directly or using images.	4	5-8
Creates and organizes URL bookmarks.	5	6-8
Searches and refines search.	5	5-8
Uses a variety of search engines.	6	6-8
Maintains a school email account.	7	7-8
Desktop Publishing, Graphic Design and Web Page Development		
Design original computer art using paint programs.	K	3-8
Import digital images into a graphics or word processing program.	4	6
Scans artwork or photos.	5	6-8
Designs multi-page documents with linked text blocks, graphics and images.	5	6-8
Designs simple web pages with multiple pages and links.	7	8
Understands when and how to save digital images in a file format appropriate for a given project (e.g. JPEG, TIFF, EPG, PICT, etc.)	7	8

Interdisciplinary Links

Computer technology will be a tool utilized in every area of curricular instruction at the CPCS. Students will discuss the historical and social implications of technology as it has advanced from prehistoric to modern times.

Community Partnership Links

When making visits to other community sites, students will be reminded of the technology employed by those places such as the reference computers at the libraries, cash registers at local vendors, audio-visual technology at theaters, communication technology at the police and fire departments and life-saving technology at the hospital.

Local computer education businesses, computer-savvy parents and community members will be requested to teach units on particular types of applications.

In the upper grades, student will do comparative studies of large and small computerized and non-computerized businesses such as computerized vs. non-computerized dry cleaning stores or pharmacies. They will also do case studies of banks, brokerages or other businesses heavily dependent on computer systems.

VI. Health

The BwCCS Health curriculum is included in the overall day-to-day curriculum and overall culture of the school. The Health curriculum is founded on the Health Skills for Life curriculum written through a federal grant program. It is supplemented by the New York State Standards.

I. Students will learn personal care and how to address social issues.

II. Students will learn how to respond to emergency situations.

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

Kindergarten

I. Students will learn personal care and how to address social issues.

- Tooth brushing and dental care
- Body care
- Recognizing food groups
- Obeying traffic signs
- Communication and making friends

II. Students will learn how to respond to emergency situations.

- Seeking adult help
- Demonstrate refusal skills to protect self
- Using 911

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Applying rules for harmful substances
- Use of potentially dangerous objects

Grade One***I. Students will learn personal care and how to address social issues.***

- Resisting pressure to be unsafe
- Auto and safety belt skills
- Identifying individuals as special and unique

II. Students will learn how to respond to emergency situations.

- Practicing home fire escape routes
- First aid for scratches, burns & bee stings

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Evaluating dangerous drugs and medicine

Grade Two***I. Students will learn personal care and how to address social issues.***

- Tooth brushing and foods for dental health
- Recognizing harmful pollutants
- Self care
- Understanding a balanced diet
- Communicating with feelings, dealing with hostility in a constructive way

II. Students will learn how to respond to emergency situations.

- Fire escape techniques

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Identifying drugs; Saying no to pressure

Grade Three***I. Students will learn personal care and how to address social issues.***

- Understanding how the body is interrelated
- Care of the skin
- Care of the skeletal and muscular systems
- Nutrition
- Apply principles of food safety and sanitation
- Coping with peer pressure

II. Students will learn how to respond to emergency situations.

- Skills for natural disasters

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Taking medicines and drug prevention planning

Grade Four

I. Students will learn personal care and how to address social issues.

- Being a health information detective
- Dental flossing
- Care of the digestive and urinary systems
- Selecting foods for a meal
- Understand how behaviors such as food selection, exercise, and rest affect growth and development
- Techniques to deal with peer pressure
- Predicting consequences of behavior
- Developing friendships with the disabled and elderly
- Coping skills for family changes

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Evaluating drug information

Grade Five

I. Students will learn personal care and how to address social issues.

- Evaluating community environmental health
- Care of the circulatory and respiratory systems
- Interpreting reproductive information
- Adjusting to puberty
- Understand the importance of nutritious food and how it contributes to good health, make nutritious food choices, and assist with basic food preparation
- Recognize how a family contributes to personal health

II. Students will learn how to respond to emergency situations.

- Resuscitation skills
- Techniques for controlling fires
- Coping with distress

- Using a safety hazard check list

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Reading safety information on labels
- Reading food labels
- Making decisions about drugs: Tobacco
- Practice and support others in making healthy choices

Grade Six

I. Students will learn personal care and how to address social issues.

- Personal fitness planning
- Care of the nervous system
- Communication skills: Paraphrasing
- Holistic health concepts and planning health improvement
- Apply knowledge of food choices and menus to plan a balanced diet, use new technologies to plan and prepare nutritious meals for a variety of dietary needs
- Identify ways to meet the basic nutrition needs of all family members
- Apply prevention and risk reduction strategies to promote healthy adolescent development
- Understand some basic requirements of nurturing people of various ages, and demonstrate appropriate ways to interact with them
- Know some conditions necessary for a safe and healthy home and school environment and recognize the various ways individuals contribute to that environment

II. Students will learn how to respond to emergency situations.

- First aid for shock victims
- First aid for bleeding victims
- First aid for breathing and choking
- First aid for poisonings
- First aid for burns

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Observing and reporting child abuse
- Examining dangerous drugs

Grade Seven***I. Students will learn personal care and how to address social issues.***

- Observing warning signs for physical and emotional health
- Prevention of chronic diseases
- Examining body system interactions
- Using nutrient charts and food labels
- Understand the relationship among diet, health, and physical activities; evaluate their own eating patterns; and use appropriate technology and resources to make food selections and prepare simple, nutritious meals
- Assessing accident proneness
- Coping with personal losses
- Techniques for resolving conflicts
- Understand the need for personal involvement in improving the environment

II. Students will learn how to respond to emergency situations.

- Home fire escape techniques

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Recognizing and preventing STD's

Grade Eight***I. Students will learn personal care and how to address social issues.***

- Consumer health decision making
- Living with chronic diseases and physical disabilities
- Understand human growth and development through the life cycle
- Evaluating pregnancy and birth
- Evaluating abstinence and contraception
- Coping skills for dating and sexuality
- Demonstrate the principles of safe and healthy child care
- Know the basics of managing a safe and healthy home
- Use the age- appropriate techniques to select and maintain clothing

II. Students will learn how to respond to emergency situations.

- Drug crisis skills and services

III. Students will learn about the dangers of drug, alcohol, sexual abuse and violence.

- Refusing illegal drugs

Interdisciplinary Links

Math: Students make graphs and charts. They plan a budget.

Science: Students assess nutritional requirements based on caloric intake and overall health. They respond to physical emergencies in response to their understanding of biology and chemistry.

Language Arts: Feeling and emotions are written on topics such as drug use, dating and decision-making.

Social Studies: Students understand that different cultures have historically dealt with issues such as sexuality, home care and health in different ways at different times. They understand the concepts of social norms, mores, and taboos.

Community Partnership Links

Students will be visited by community members such as fire officers, police, and paramedics who will explain to them safety hazards and precautions. Students will also visit the local hospital, fire department, and police station to know where they are in the community and how to access their help.

Students will visit local recreation stores, nutrition centers and health clubs.

VII. Physical Education Standards

These are the New York State Standards for Physical Education.

I. Students will perform basic motor and manipulative skills. They will attain competency in a variety of physical activities and proficiency in a few select and complex motor and sports activities. Students will design personal fitness programs to improve cardiorespiratory endurance, flexibility, muscular strength, endurance and body composition.

II. Students will 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. Students will be able to ensure a safe and positive experience for all participants.

III. Students will be aware of and able to access opportunities available to them within their community to engage in physical activity. They will be informed consumers and be able to evaluate facilities and programs. Students will also be aware of some career options in the field of physical fitness and sports.

Grades Kindergarten-Six

I. Students will perform basic motor and manipulative skills. They will attain competency in a variety of physical activities and proficiency in a few select and complex motor and sports activities. Students will design personal fitness programs to improve cardiorespiratory endurance, flexibility, muscular strength, endurance and body composition.

Students:

- Participate in physical activities (games, sports, exercises) that provide conditioning for each fitness area
- Develop physical fitness skills through regular practice, effort, and perseverance

- Demonstrate mastery of fundamental motor, nonlocomotor, 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 personal well being.

II. Students will 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. Students will be able to ensure a safe and positive experience for all participants.

Students:

- Understand the risks of injury if physical activity is performed incorrectly or performed in extreme environmental conditions, and recognize the importance of safe physical conditions (equipment, facilities) as well as the emotional conditions essential for safety.
- Develop skills of cooperation and collaboration, as well as fairness, sportsmanship and respect for others
- Work constructively with others to accomplish a goal in a group activity, demonstrating consideration for others involved
- Understand the physical and environmental dangers associated with particular activities and demonstrate proper procedures for safe participation in games, sports and recreational pursuits
- Understand the role of physical activity, sport, and games as a balance between cooperative and competitive behaviors and as a possible arena in which to develop and sharpen leadership and problem solving skills, and understand the physical, emotional, and social benefits of participation in physical activity.

III. Students will be aware of and able to access opportunities available to them within their community to engage in physical activity. They will be informed consumers and be able to evaluate facilities and programs. Students will also be aware of some career options in the field of physical fitness and sports.

Students:

- 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

Grades Seven and Eight

I. Students will perform basic motor and manipulative skills. They will attain competency in variety of physical activities and proficiency in a few select complex motor and sports activities. Students will design personal fitness programs to improve cardiorespiratory endurance, flexibility, muscular strength, endurance, and body composition.

Students:

- Demonstrate competency in a variety of physical activities (games, sports, exercises) that provide conditioning for each fitness area
- Know that motor skills progress in complexity and need to be used in the context of games and sports with additional environmental constraints
- Combine and integrate fundamental skills and adjust technique based on feedback, including self-assessment
- Understand the relationship between physical activity and the prevention of illness, disease and premature death
- Develop and implement a personal fitness plan based on self-assessment and goal setting, understand physiological changes that result from training, and understand the health benefits of regular participation in activity
- Develop leadership, problem solving, cooperation, and team work by participating in group activities

III. Students will be aware of and able to access opportunities available to them within their community to engage in physical activity. They will be informed consumers and be able to evaluate facilities and programs. Students will also be aware of some career options in the field of physical fitness and sports.

Students:

- Should be informed consumers, aware of the alternatives available to them within their communities for physical activity and should be able to evaluate facilities and programs available

- Demonstrate the ability to locate physical activity information, products and services
- Know some career options in the field of physical fitness and sports

Interdisciplinary Links

In Physical Education class, students can incorporate the following other subject areas:

Science: Use Pythagorean Theorem, gravity, laws of motion and thermodynamics, and other mathematical concepts to explain real world physical education phenomena.

Reading: Read books relating to rules and strategies of various games. Read books, articles about effects of exercise on the body.

Writing: Write reports about physical phenomena that affect the body (e.g. smoking).

Social Studies: Compare physical fitness and activities to other regions of the world (e.g. learn about, then play German game of rounders).

Art: Use photography to study motion. Use paintings to study the body and its parts.

Health & Home Economics: Explore how nutrition affects the body.

Math: Use data from Physical Education events (scores, race times, etc.) to create and analyze graphs and charts.

In other classes, Physical Education can be used in the following ways:

Science: Conduct experiments involving movement, strength, speed, etc.

Reading: Read books about athletes, physical education issues. Follow one physical fitness issue or game in the news.

Social Studies: Explore history of physical fitness in various societies (e.g. ancient Olympics).

Art: Examine the body as art. Explore various artists' renditions of the body (Da Vinci, Picasso, etc.).

Health & Home Economics: Compare various types of physical activity as far as calories expended, stress on body, use of muscles, etc.

Math: Evaluate sports-related data as a study of patterns, fractions, or percentages.
Examples: compare scoring of two point versus three point scoring strategies in basketball; compare division of different games into halves, periods (thirds), quarters, laps (eighths), innings (ninths); study formulas used for batting average, earned run average.

Community Partnership Links

Students will go on hikes at the **Brooklyn Botanical Gardens**.

They will visit the **Brooklyn Wildlife Center** to record the physical lives of other species.

Students will participate in long distance running and group games (softball, volleyball and soccer) at **Prospect Park**.

Students will conduct fitness evaluations in cooperation with an area health club.

VIII. The Arts Standards

Especially in the early years of this school's life, CPCS arts curriculum will depend heavily on volunteers and fundraising. Music Together of Brooklyn has made a commitment to developing programs based on volunteerism. We also expect to bring local artist-volunteers into classrooms on a regular basis, but we anticipate that programs with BAM and the Brooklyn Museum of Art will require us to raise funds either on our own or in partnership with those institutions.

As the school grows, we will hire full time teacher/directors for a music program, a visual arts program, and a performing arts program. Each will be responsible for teaching classes and also for coordinating and training the local artists ready to contribute their knowledge and experience to the children of this community.

The arts program will be woven into the fabric of other curriculum areas. Artists and arts-in-education consultants will work with teaching staff to develop interdisciplinary links that make art an integral part of learning.

In the course of visiting a wide variety of public schools, we have observed that the arts are used lavishly to enrich early childhood educational experiences. The hallways outside of lower grades are richly decorated with examples of children's visual arts work. Usually by third or fourth grade this richness begins to subside. At the Community Partnership Charter School, the arts will be integrated with academic experience at all grade levels. At minimum children will have at least one weekly classroom visit from a specialist (volunteer or paid) in each of the four major arts disciplines. Volunteers may be parents with appropriate skills, retired teachers or local artists interested in working with children.

In lower grades (K-4), children will receive broad exposure to the four major arts disciplines. During middle school, they will be encouraged to focus their interests through the disciplines that engage them most strongly and which make the best use of their strengths as learners and creators.

If a charter is granted to the Community Partnership Charter School, we will seek external sources of funding for arts programming. It is unrealistic to imagine that state allowances will support rich arts programming and a strong academic program. Parents within the founding group will work with partner institutions and individuals to raise

financial support for a program built around a strong belief in the use of arts as interdisciplinary, meaningful educational tools.

Dance³

- I. *Identifying and demonstrating movement elements and skills in performing dance.*
- II. *Understanding choreographic principles, processes, and structures.*
- III. *Understanding dance as a way to create and communicate movement.*
- IV. *Applying and demonstrating critical and creative thinking skills in dance.*
- V. *Demonstrating and understanding dance in various cultures and historical periods*
- VI. *Making connections between dance and healthful living.*
- VII. *Making connections between dance and other disciplines.*

I. Identifying and demonstrating movement elements and skills in performing dance (K-4)

- Accurately demonstrating nonlocomotor/axial movements (such as bend, twist, stretch, swing)
- Accurately demonstrate eight basic locomotor movements (such as walk, run, hop, jump, leap, gallop, slide, and skip), traveling forward, backward, sideward, diagonally, and turning).
- Create shapes at low, middle, and high levels.
- Demonstrate the ability to define and maintain personal space.
- Demonstrate movements in straight and curved pathways.
- Demonstrate accuracy in moving to a musical beat and responding to changes in tempo.
- Demonstrate kinesthetic awareness, concentration, and focus in performing movement skills.
- Attentively observe and accurately describe the action (such as skip, gallop) and movement elements (such as levels, directions) in brief movement study.

³ The term "competent" is used relative to a system of individual assessment of the student's ability and the formation of curricular development to respond to the student's needs as consistent with the BwCS model.

(5-8)

- Demonstrate the following movement skills and explain the underlying principles: alignment, balance, initiation of movement, articulation of isolated body parts, weight shift, elevation and landing, fall and recovery
- Accurately identify and demonstrate basic dance steps, positions, and patterns for dance from two different styles or traditions
- Accurately transfer a spatial pattern from the visual to the kinesthetic
- Accurately transfer a rhythmic pattern from the aural to the kinesthetic.
- Identify and clearly demonstrate a range of dynamics/movement qualities.
- Demonstrate increasing kinesthetic awareness, concentration, and focus in performing movement skills.
- Demonstrate accurate memorization and reproduction of movement sequences.
- Describe the action and movement elements observed in a dance, using appropriate movement/dance vocabulary.

II. Understanding choreographic principles, processes, and structures.

(K-4)

- Create a sequence with a beginning, middle, and end, both with and without a rhythmic accompaniment; identify each of the parts of the sequence.
- Improvise, create, and perform dances based on their own ideas and concepts from other sources.
- Use improvisation to discover and invent movement and to solve movement problems.
- Create a dance phrase, accurately repeat it, and then vary it (making changes in the time, space, and/or force/energy).
- Demonstrate the ability to work effectively alone and with a partner.
- Demonstrate the following partnering skills: copying, leading and following, mirroring.

(5-8)

- Clearly demonstrate the principles of contrast and transition.
- Effectively demonstrate the processes of reordering and chance.
- Successfully demonstrate the structures or forms of AB, ABA, canon, call and response, and narrative.
- Demonstrate the ability to work cooperatively in a small group during the choreographic process.
- Demonstrate the following partnering skills in a visually interesting way: creating contrasting and complementary shapes, taking and supporting weight.

III. *Understanding dance as a way to create and communicate movement.*

(K-4)

- Observe and discuss how dance is different from other forms of human movement (such as sports, everyday gestures).
- Take an active role in a class discussion about interpretation of and reactions to a dance.
- Present their own dances to peers and discuss their meanings with competence and confidence.

(5-8)

- Effectively demonstrate the difference between pantomiming and abstracting gesture.
- Observe and explain how different accompaniment (such as sound, music, and spoken text) can affect the meaning of a dance.
- Create a dance that successfully communicates a topic of personal significance.

IV. Applying and demonstrating critical and creative thinking skills in dance.

(K-4)

- Explore, discover, and realize multiple solutions to a given movement problem; choose their favorite solution and discuss the reason for that choice.
- Observe two dances and discuss how they are similar and different in terms of one of the elements of dance (such as space) by observing body shapes, levels, and pathways.

(5-8)

- Create a movement problem and demonstrate multiple solutions; choose the most interesting solutions and discuss the reasons for their choice.
- Demonstrate appropriate audience behavior in watching dance performances; discuss their opinions about the dances with their peers in a supportive and constructive way.
- Compare and contrast two dance compositions in terms of space (such as shape and pathways), time (such as rhythm and tempo), and force/ energy (movement qualities).
- Identify possible aesthetic criteria for evaluating dance (such as skill and performers, originality, visual and/or emotional impact, variety and contrast)

V. Demonstrating and understanding dance in various cultures and historical periods.

(K-4)

- Perform folk dances from various cultures with competence and confidence.
- Learn and effectively share a dance from a resource in their own community; describe the cultural and/or historical content.
- Accurately answer questions about dance from a resource in a particular culture and time period (for example, In colonial America, why and in what settings did people dance? What did the dances look like?)

(5-8)

- Competently perform folk and/or classical dances from various cultures; describe similarities and differences in steps and movement styles.

- Competently perform folk, social, and/or theatrical dances from a broad spectrum of twentieth-century America.
- Learn from resources in their own community (such as people, books, videos) a folk dance of a different culture or a social dance of a different time period and the cultural/historical context of that dance, effectively sharing the dance and its context with their peers
- Accurately describe the role of dance in at least two different cultures or time periods.

VI. Making connections between dance and healthful living.

(K-4)

- Identify at least three personal goals to improve themselves as dancers.
- Explain how healthy practices (such as nutrition, safety) enhance their ability to dance, citing multiple examples.

(5-8)

- Identify at least three personal goals to improve themselves as dancers and steps they are taking to reach those goals.
- Explain strategies to prevent dance injuries.
- Create their own warm up and discuss how that warm up prepares the body and mind for expressive purposes.

VII. Making connections between dance and other disciplines.

(K-4)

- Create a dance project that reveals understanding of a concept or idea from another discipline (such as pattern in dance and science).
- Respond to dance using another art form; explain the connections between the dance and their response to it (such as stating how their paintings reflect the dance they saw).

(5-8)

- Create a project that reveals similarities and differences between the arts.
- Cite examples of concepts used in dance and another discipline outside the arts (such as balance, shape, and pattern).
- Observe the same dance both live and recorded on video; compare and contrast the aesthetic impact of the two observations.

Interdisciplinary Links

Mathematics: Pattern recognition, repetition and creation. Reflective, rational and transitional symmetries.

Science: Muscular and skeletal structures, joint structures

Language Arts: Written and verbal descriptions used to develop vocabulary and expository language skills. Study of literature describing dance and dancers (Examples: *Ayu and the Perfect Moon* (David Cos), *Alvin Ailey* (Andrea Davis Pinkney)). Writing or creating verbal presentations about dance performances attended.

Social Studies: Study of dance within various cultures and historical periods as described within Social Studies portion of curriculum.

Community Partnership Links

Attend local celebrations and festivals in which dance plays an important cultural role (for example visit **Brooklyn Chinatown** during the Chinese New Year to observe dragon dance)

Attend performances of dance companies of different nationalities at **Brooklyn Museum of Art, BAM** and **St. Anne's**

Visiting artists from **651** teach children at all grade levels

Classroom visits from dancers and musicians

CPCS student dance performances open to the community.

CPCS students present dance performances in variety of community settings such as senior citizens centers.

Music

Music Program

An important part of a solid school curriculum, as in the *BwC School* model, is the integration of diverse subjects into a seamless unity. The thrust of our and the *BwC School* model's music program, therefore, is the integration of music with our reading, math, science, and social studies curricula. The rule-bound structure of music provides a parallel to the rules and structures of language, syntax, and mathematics. Development of a child's understanding of rhythm, accent, and melody serves to strengthen parallel cognitive skills in other learning spheres.

Parent and early childhood music specialist, Jessica Nevins, has outlined the following early music curriculum guidelines:

Music is a basic life skill and this should be reflected in the school's curriculum.

Research suggests that music engages spatial, mathematical, kinesthetic, and emotional intelligences, and is, therefore, a powerful source of learning. It is likely that the kind of successes achieved in basic music learning, when offered in developmentally appropriate ways, benefits other types of development. Music as a discipline is important for its own

sake but it also provides crossover benefits to other disciplines. We plan to develop a music curriculum to reflect a learning progression from lower to upper grades, including third through eighth grade. The future direction for the program, especially as the children grow older, will be to develop a performance-based component, eventually including the development of a school chorus and dramatic musical productions. Ritual songs, a school song, concerts and programs will all be used to provide a strong musical culture in the school. Starting with 2nd grade, we will build a choir. Singing promotes musicianship, reading music, cooperating with a group, and following a conductor's leadership. The CPCS community will be brought together through music and movement. Parents, teachers, students and artists will participate together in creating art and community spirit.

Pre-School- A music specialist will visit each class weekly for some quality circle time. Parents are welcome to join and classroom teachers will participate. A ritual "Hello" ,using everyone's name, will start the interactive lesson. A half hour of music would include fingerplays, songs without words (important to really focus on tonal development), vocal play (to explore the voice and to underline tonality), songs with rhythm activity (clapping, tapping, swaying, jumping) songs with tropical themes (animals, transportation, families) and songs with props (great for variety and for those tactile types... rhythm sticks, scarves, drums... things that shake etc...) Teachers would model joyful musical expression. Classroom teachers will be encouraged to incorporate music throughout the week. The children will benefit by hearing and singing "their" songs all week. They will gain confidence and learn to experiment and explore music. They will teach themselves through play. Teachers will help by creating a rich musical atmosphere. Parents will have the opportunity to learn some new songs and will be given some ideas for musical play at home. CPCS will have workshops for adults that help them rediscover their own musical selves.

Kids are natural music makers. The initial repertoire would be fun and simple. The goal will be to establish music as a joyful thing, and to let children know that their ideas are important. A music specialist can facilitate exploration of children's singing voices and vocal range. Rhythmic games will explore the emotional content of music; other games will that can lead to group music writing. Playing with tone and rhythm, then improvising, will encourage purposeful creating comparable to going from babbling to talking to conversation to storytelling in language development. Each class will create a songbook at the end of the year weaving themes of their own culture community, family etc. This songbook/scrapbook could include artwork, photographs, musical ideas and stories about the visiting artists.

Kindergarten and First Grade – As with the pre-school age group, the message is still that music making is fun and natural. The subtext will now be to find ways to work together and respect each other's ideas. Routines provide opportunities for individual input and positive interaction are important elements of music at any age. Children will be encouraged to sing in tune and keep a beat to music. These life skills can be playfully brought out for every student. The repertoire at this point can be enhanced with greater tonal variety and complex rhythms. Songs can be chosen from around the world and the curriculum can mirror other learning that is happening in the classroom. Songwriting is a powerful form of expression as it offers a variety of elements (tonal, textural, rhythmic, language, movement) to be integrated into the final product.

- I. *Singing, alone and with others, a varied repertoire of music.*
- II. *Performing on instruments, alone and with others, a varied repertoire of music.*
- III. *Improvising melodies, variations, and accompaniments.*
- IV. *Composing and arranging music within specified guidelines.*
- V. *Reading and notating music.*
- VI. *Listening to, analyzing, and describing music.*
- VII. *Evaluating music and music performances*
- VIII. *Understanding relationships between music, the other arts, and disciplines outside of the arts.*
- IX. *Understanding music in relation to history and culture.*

I. Singing, alone and with others, a varied repertoire of music.

(K-4)

- Sing independently, on pitch and in rhythm, with appropriate timbre, diction, and posture, and maintain a steady tempo.
- Sing expressively, with appropriate dynamics, phrasing, and interpretation.
- Sing from memory a varied repertoire of songs representing genres and styles from diverse cultures.
- Sing ostinatos, partner songs, and rounds.
- Sing in groups, blending vocal timbres, matching dynamic levels, and responding to the cues of a conductor.
- (5-8)

- Sing accurately and with good breath control throughout their singing ranges; alone and in small and large ensembles.
- Sing with expression and technical accuracy a repertoire of vocal literature with a level of difficulty of 2, on a scale of 1 to 6, including some songs performed from memory.
- Sing music representing diverse genres and cultures, with expression appropriate for the work being performed.
- Sing music written in two and three parts.
- *Students who participate in a choral ensemble:* sing with expression and technical accuracy a varied repertoire of vocal literature with a level of difficulty of 3, on scale of 1 to 6, including some songs performed from memory.

II. Performing on instruments, alone and with others, a varied repertoire of music.

(K-4)

- Perform on pitch, in rhythm, with appropriate dynamics and timbre, and maintain a steady tempo
- Perform easy rhythmic, melodic, and chordal patterns accurately and independently on rhythmic, melodic, and harmonic classroom instruments.
- Perform expressively a varied repertoire of music representing diverse genres and styles.
- Echo short rhythms and melodic patterns.
- Perform in groups, blending instrumental timbres, matching dynamic levels, and responding to the cues of a conductor.
- Perform independent instrumental parts while others sing or play contrasting parts.

(5-8)

- Perform on at least one instrument accurately and independently, alone in small and large ensembles, with good posture, good playing position, and good breath, bow, or stick control.
- Perform with expression and technical accuracy on at least one string, wind, percussion, or classroom instrument a repertoire of instrumental literature with a level of difficulty of 2, on a scale of 1 to 6.
- Perform music representing diverse genres and cultures, with expression appropriate for the work being performed.
- Play by ear simple melodies on a melodic instrument and simple accompaniments on a harmonic instrument.
- *Students who participate in an instrumental ensemble or class:* perform with expression and technical accuracy a varied repertoire of instrumental literature

with a level of difficulty of 3, on a scale of 1 to 6, including some solos performed from memory.

III. Improvising melodies, variations, and accompaniments.

(K-4)

- Improvise “answers” in the same style to given rhythmic and melodic phrases.
- Improvise simple rhythmic and melodic ostinato accompaniments.
- Improvise simple rhythmic variations and simple melodic embellishments on familiar melodies.
- Improvise short songs and instrumental pieces, using a variety of sound sources, including traditional sounds, nontraditional sounds available in the classroom, body sounds, and sounds produced by electronic means.

(5-8)

- Improvise simple harmonic accomplishments.
- Improvise melodic embellishments and simple rhythmic and melodic variations on given pentatonic melodies and melodies in major keys.
- Improvise short melodies, unaccompanied and over given rhythmic accompaniments, each in a consistent style, meter, and tonality.

IV. Composing and arranging music within specified guidelines.

(K-4)

- Create and arrange music to accompany readings or dramatizations.
- Create and arrange short songs and instrumental pieces within specified guidelines.
- Use a variety of sound sources when composing.

(5-8)

- Compose short pieces within specified guidelines, demonstrating how the elements of music are used to achieve unity and variety, tension and release, and balance.
- Arrange simple pieces for voices or instruments other than those for which the pieces were written.
- Use a variety of traditional and nontraditional sound sources and electronic media when composing and arranging.

V. Reading and notating music.

(K-4)

- Read whole, half, dotted half, quarter, and eighth notes and rests in 2/4, 3/4, and 4/4 meter signatures.
- Use a system (that is, syllables, numbers, or letters) to read simple pitch notation in the treble clef in major keys.

- Identify symbols and traditional terms referring to dynamics, tempo, and articulation and interpret them correctly when performing.
- Use standard symbols to notate meter, rhythm, pitch, and dynamics in simple patterns presented by the teacher.

(5-8)

- Read whole, half, quarter, eighth, sixteenth, and dotted notes and rests in 2/4, __, 4/4, 6/8, 3/8, and alla breve meter signatures.
- Read at sight simple melodies in both treble and bass clefs.
- Identify and define standard notation symbols for pitch, rhythm, dynamics, tempo, articulation, and expression.
- Use standard notation to record their musical ideas and the musical ideas of others.
- *Students who participate in a choral or instrumental ensemble or class:* sight read, accurately and expressively, music with a level of difficulty of 2, on a scale of 1 to 6.

VI. Listening to, analyzing, and describing music.

(K-4)

- Identify simple music forms when presented aurally.
- Demonstrate perceptual skills by moving, by answering questions about, and by describing aural examples of music of various styles representing diverse cultures.
- Use appropriate terminology in explaining music, music notation, music instruments and voices, and music performances.
- Identify the sounds of a variety of instruments, including many orchestra and band instruments, and instruments from various cultures, as well as children's voices and male and female adult voices.
- Respond through purposeful movement to selected prominent music characteristics or to specific music events while listening to music.

(5-8)

- Describe the specific music events in a given aural example, using appropriate terminology.
- Analyze the uses of elements of music in aural examples representing diverse genres and cultures.
- Demonstrate knowledge of the basic principles of meter, rhythm, tonality, intervals, chords, and harmonic progressions in their analyses of music.

VII. Evaluating music and music performances

(K-4)

- Devise criteria for evaluating performances and compositions.

- Explain, using appropriate music terminology, their personal preferences for specific musical works and styles.

(5-8)

- Develop criteria for evaluating the quality and effectiveness of music performances and compositions and apply the criteria in their personal listening and performing.
- Evaluate the quality and effectiveness of their own and others' performances, compositions, arrangements, and improvisations by applying specific criteria appropriate for the style of the music and offer constructive suggestions for improvement.

VII. Understanding relationships between music, the other arts, and disciplines outside of the arts.

(K-4)

- Identify similarities and differences in the meanings of common terms used in the various arts.
- Identify ways in which the principles and subject matter of other disciplines taught in the school are interrelated with those of music. (foreign languages: singing songs in various languages; language arts: using the expressive elements of music in interpretive readings; mathematics: mathematical basis of values of notes, rests, and meter signatures; science: vibration of strings, drum heads, or air columns generating sounds used in music by making simple instruments; geography: songs associated with various countries or regions.)

(5-8)

- Compare in two or more arts how the characteristic materials of each art (that is, sound in music, visual stimuli in visual arts, movement in dance, human interrelationships in theatre) can be used to transform similar events, scenes, emotions, or ideas into works of art.
- Describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with those of music (language arts: issues to be considered in setting texts to music; mathematics: frequency ratios of intervals; sciences: the human hearing process and hazards to hearing; social studies: historical and social events and movements chronicled or influenced by musical works).

IX. Understanding music in relation to history and culture.

(K-4)

- Identify by genre or style aural examples of music from various historical periods and cultures.
- Describe in simple terms how elements of music are used in music examples from various cultures of the world.
- Identify various uses of music in their daily experiences and describe characteristics that make certain music suitable for each use.
- Identify and describe roles of musicians in various music settings and cultures.
- Demonstrate audience behavior appropriate for the context and style of music performed.

(5-8)

- Describe distinguishing characteristics of representative music genres and styles from a variety of cultures.
- Classify by genre and style (and, if applicable, by historical period, composer, and title) a varied body of exemplary (that is, high quality and characteristic) musical works and explain the characteristics that cause each work to be considered exemplary.
- Compare, in several cultures of the world, functions music serves, roles of musicians, and conditions under which music is typically performed.

Interdisciplinary Links

Math: Pattern Recognition, repetition and creation, intervals. Fractions/ proportions and symmetry: counterpoint= reflection, repetition= translation.

Science: The study of sound waves, recording processes, tension/vibration, wavelength as seen in reed string and air in tube.

Language Arts: Study of lyrics and librettos in a variety of musical forms. Students create their own songs and librettos with words and music.

Social Studies: The role of music (historical and contemporary) in cultures from local Brooklyn cultures and communities to cultures of the world.

Community Partnership Links

Music Together of Park Slope provides staff development support in helping teachers to integrate music into the normal academic day, MTPS also makes regular weekly visits to all classes.

Students attend music performances at BAM.

Visiting artists from community perform for individual classes and entire school.

CPCS Student musical performances open to community.

CPCS students present dance performances in variety of community settings such as Sr. Citizens Centers.

Theatre

- I. *Script writing by planning and recording improvisations based on personal experience and heritage, imagination, literature and history.*
- II. *Acting by assuming roles and interacting in improvisations.*
- III. *Designing by visualizing and arranging environments for classroom dramatizations.*
- IV. *Directed by planning classroom dramatizations.*
- V. *Researching by finding information to support classroom dramatizations.*
- VI. *Comparing and connecting art forms by describing theatre, dramatic media (such as film, television, and electronic media), and other art forms.*
- VII. *Analyzing and explaining personal preferences and constructing meanings from classroom dramatizations and from theatre, film television, and electronic media productions.*
- VIII. *Understanding context by recognizing the role of theatre, film television, and electronic media in daily life.*

I. Script writing by planning and recording improvisations based on personal experience and heritage, imagination, literature and history.

(K-4)

- Collaborate to select interrelated characters, environments, and situations for classroom dramatizations.
- Improvise dialogue to tell stories, and formalize improvisations by writing or recording the dialogue.

(5-8)

- Individually and in groups, create characters, environments, and actions that create tension and suspense.

- Refine and record dialogue and action.

II. Acting by assuming roles and interacting in improvisations.

(K-4)

- Imagine and clearly describe characters, their relationships, and their environments.
- Use variations of locomotor and nonlocomotor movement and vocal pitch, tempo, and tone for different characters.
- Assume roles that exhibit concentration and contribute to the action of classroom dramatizations based on personal experience and heritage, imagination, literature, and history.

(5-8)

- Analyze descriptions, dialogue, and actions to discover, articulate, and justify character motivation and intent and invent character behaviors based on the observation of interactions, ethical choices, and emotional responses of people.
- Demonstrate acting skills (such as sensory recall, concentration, breath control, diction, body alignment, control of isolated body parts) to develop characterizations that suggest artistic choices.
- In an ensemble, interact as the invented characters.

III. Designing by visualizing and arranging environments for classroom dramatizations.

(K-4)

- Visualize environments and construct designs to communicate locale and mood using visual elements (such as space, color, line, shape, texture) and aural aspects using a variety of sound sources.
- Collaborate to establish playing spaces for classroom dramatizations and to select and safely organize available materials that suggest scenery, properties, lighting, sound, costumes and makeup.

(5-8)

- Explain the function and interrelated nature of scenery, properties, lighting, sound, costumes, and makeup in creating an environment appropriate for the drama.
- Analyze improvised and scripted scenes for technical requirements.
- Develop focused ideas for the environment using visual elements (line, texture, color, space), visual principles (repetition, balance, emphasis, contrast, unity), and aural qualities (pitch, rhythm, dynamics, tempo, expression) from traditional and nontraditional sources.

- Work collaboratively and safely to select and create elements of scenery, properties, lightning, and sound to signify environments, and costumes and makeup to suggest character.

IV. Directed by planning classroom dramatizations.

(K-4)

- Collaboratively plan and prepare improvisations and demonstrate various ways of staging classroom dramatizations.

(5-8)

- Lead small groups in planning visual and aural elements and in rehearsing improvised and scripted scenes, demonstrating social, group, and consensus skills.

V. Researching by finding information to support classroom dramatizations.

(K-4)

- Communicate information to peers about people, events, time, and place related to classroom dramatizations.

(5-8)

- Apply cultural and historical research from print and nonprint sources to script writing, acting, design, and directing choices.

VI. Comparing and connecting art forms by describing theatre, dramatic media (such as film, television, and electronic media), and other art forms.

(K-4)

- Describe visual, aural, oral, and kinetic elements in theatre, dramatic media, dance, music and visual arts.
- Compare how ideas and emotions are expressed in theatre, dramatic media, dance, music, and visual arts.
- Select movement, music, or visual elements to enhance the mood of a classroom dramatization.

(5-8)

- Describe characteristics and compare the presentation of characters, environments, and actions in theatre, musical theatre, dramatic media, dance, and visual arts.
- Incorporate elements of dance, music, and visual arts to express ideas and emotions in improvised and scripted scenes.
- Express and compare personal reactions to several art forms.
- Describe and compare the functions and interaction of performing and visual artists and audience members in theatre, dramatic media, musical theatre, dance, music, and visual arts.

VII. Analyzing and explaining personal preferences and constructing meanings from classroom dramatizations and from theatre, film television, and electronic media productions.

(K-4)

- Identify and describe the visual, aural, oral, and kinetic elements of classroom dramatizations and dramatic performances.
- Explain how the wants and needs of characters are similar to and different from their own.
- Articulate the emotional responses to and explain personal preferences about the whole as well as the parts of dramatic performances.
- Analyze classroom dramatizations and, using appropriate terminology, constructively suggest alternative ideas for dramatizing roles, arranging environments, and developing situations along with means of improving the collaborative processes of planning, playing, responding and evaluating.

(5-8)

- Describe and analyze the effect of publicity, study guides, programs, and physical environments on audience response and appreciation of dramatic performances.
- Articulate and support the meanings constructed from their and others' dramatic performances.
- Use articulated criteria to describe, analyze, and constructively evaluate the perceived effectiveness of artistic choices found in dramatic performances.
- Use articulated criteria to describe, analyze, and constructively evaluate the perceived effectiveness of artistic choices found in dramatic performances.
- Describe and evaluate the perceived effectiveness of students; contributions (as playwrights, actors, designers, and directors) to the collaborative process of developing improvised and scripted scenes.

VII. Understanding context by recognizing the role of theatre, film television, and electronic media in daily life

(K-4)

- Identify and compare similar characters and situations in stories and dramas from and about various cultures, illustrate with classroom dramatizations, and discuss how theatre reflects life.
- Identify and compare the various settings and reasons for creating dramas and attending, theatre, film, television, and electronic media productions.

(5-8)

- Describe and compare universal characters and situations in dramas from and about various cultures and historical periods, illustrate in improvised and scripted scenes, and discuss how theatre reflects a culture.
- Explain the knowledge, skills, and discipline needed to pursue careers and vocational opportunities in theatre, film, television, and electronic media.
- Analyze the emotional and social impact of dramatic events in their lives, in the community, and in other cultures.
- Explain how culture affects the content and production values of dramatic performances.
- Explain how social concepts such as cooperation, communication, collaboration, consensus, self-esteem, risk taking, sympathy, and empathy apply in theatre and daily life.

Interdisciplinary Links

Math: Geometry and measurement skills provide foundation for set design and construction. Performance time in proportion to rehearsal time: a year represented in an hour.

Language Arts: Study of plays as literature, adapting other literary forms into theatrical forms (for example adapting a book from class reading into a short play. Critical writing/review of plays seen in performance.

Social Studies: Study of plays as a mirror of culture and society. Study of the role of theater in cultures (historical and contemporary),

Music, Dance and Visual Arts: Study the role of other art forms in the synthetic art of theater.

Community Partnership Links

We are in the process of developing specific links to Brooklyn based theater companies, directors and actors who will serve as visiting artists in the CPCS.

Visits to performances of plays and puppet shows in Brooklyn and Manhattan.

CPCS plays open to Community.

CPCS students perform plays and musical theater excerpts in variety of community settings including Senior Citizen's Centers, daycare and Headstart programs.

Visual Arts

- I. *Understanding and applying media, techniques, and processes.*
- II. *Using knowledge of structures and functions.*
- III. *Choosing and evaluating a range of subject matter, symbols, and ideas.*
- IV. *Understanding the visual arts in relation to history and cultures.*
- V. *Reflecting upon and assessing the characteristics and merits of their work and the work of others.*
- VI. *Making connections between visual arts and the other disciplines.*

I. Understanding and applying media, techniques, and processes.

(K-4)

- Know the differences between materials, techniques, and processes.
- Describe how different materials, techniques, and processes cause different responses.

(5-8)

- Select media, techniques, and processes; analyze what makes them effective or not effective in communicating ideas; and reflect upon the effectiveness of their choices.
- Intentionally take advantage of the qualities and characteristics of art media, techniques, and processes to enhance communication of their experience and ideas.

II. Using knowledge of structures and functions.

(K-4)

- Know the differences among visual characteristics and purposes of art in order to convey ideas.
- Describe how different expressive features and organizational principles cause different responses.
- Use visual structures and functions of art to communicate ideas.

(5-8)

- Generalize about the effects of visual structures and functions and reflect upon these effects in their own work.
- Employ organizational structures and analyze what makes them effective or not effective in the communication of ideas.
- Select and use the qualities of structure and functions of art to improve communication of their ideas.

III. Choosing and evaluating a range of subject matter, symbols, and ideas.

(K-4)

- Explore and understand prospective content for works of art.
- Select and use subject matter, symbols, and ideas to communicate meaning.

(5-8)

- Integrate visual, spatial, and temporal concepts with content to communicate intended meaning in their artworks.
- Use subjects, themes, and symbols that demonstrate knowledge of contexts, values, and aesthetics that communicate intended meaning in artworks.

IV. Understanding the visual arts in relation to history and cultures.

(K-4)

- Know that visual arts have both a history and specific relationships to various cultures.
- Identify specific works of art as belonging to particular cultures, times, and places.
- Demonstrate how history, culture, and the visual arts can influence each other in making and studying works of art.

(5-8)

- Know and compare the characteristics of artworks in various eras and cultures.
- Describe and place a variety of art objects in historical and cultural contexts.
- Analyze, describe, and demonstrate how factors of time and place (such as climate, resources, ideas and technology) influence visual characteristics that give meaning and value to a work of art.

V. Reflecting upon and assessing the characteristics and merits of their work and the work of others.

(K-4)

- Understand there are various purposes for creating works of visual art.
- Describe how people's experiences influence the development of specific artworks.
- Understand there are different responses to specific artworks.

(5-8)

- Compare multiple purposes for creating works of art.
- Analyze contemporary and historic meanings in specific artworks through cultural and aesthetic inquiry.
- Describe and compare a variety of individual responses to their own artworks and to write works from various eras and cultures.

VI. Making connections between visual arts and the other disciplines.

(K-4)

- Understand and use similarities and differences between characteristics of the visual arts and other arts disciplines.
- Identify connections between the visual arts and other disciplines in the curriculum.

(5-8)

- Compare the characteristics of works in two or more art forms that share similar subject matter, historical periods, or cultural context.
- Describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with visual art projects.

Interdisciplinary Links

Math: Pattern recognition, repetition and creation studies through work of individual artists. Students compose and analyze works of art using geometric shapes. They identify proportion and symmetry.

Science: Study of media and materials. Study of early astronomical observatories as works of art. Study of individual artists who were also scientists (da Vinci, etc.).
Mapmaking. Perceptual analysis through frame of reference of observer/ artist/ subject.

Language Arts: Study of individual artists through biographies. Creating stories from visual works of art. Critical writing about visual works of art. Sign language and symbols related to the origins of the alphabet and ideograms.

Social Studies: Study of the role of the visual arts in the history of various cultures. Study of the role of visual arts in contemporary cultures. Students learn to distinguish cultures by the style, content and media of their visual arts traditions.

Community Partnership Links

Brooklyn Museum of Art partners to develop visual arts programs including classroom visits by museum educators, staff development and museum visits.

Local artist volunteers support visual arts education.

Student visits to artist's studios and exhibitions.

CPCS Art Exhibition open to public.

CPCS student work loaned to community organizations such as senior citizens center.