



Charter Schools Institute  
State University of New York

# BROOKLYN EXCELSIOR CHARTER SCHOOL

**FINAL CHARTERED AGREEMENT**

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

VOLUME 7 OF 9

**REDACTED COPY**

**LANGUAGE ARTS  
SEVENTH GRADE**

**Writing**

**Collins Writing Program**  
**Philosophy: The Teaching of Writing**  
**Collins Writing Strategies**  
**Teacher Resources**  
**Assessing Your Current Writing Program**



## COLLINS WRITING PROGRAM

### Philosophy: The Teaching of Writing in NHA Schools

#### ON THE TEACHING OF WRITERS:

A belief system about how children develop as language users from birth through adulthood and what teachers should do in their classrooms to foster that growth is essential to any writing curriculum. Moreover, to provide integrated and meaningful instruction and accountability, the writing program must be organized around a system for managing the writing process. The following is meant to be a guide to teaching “writers” in the classroom.

#### 1. Children as language users:

National Heritage Academies believes that children come to school with an innate curiosity about writing and a desire for meaningful, real-world communication, and that writing is one of the most complex intellectual tasks they will need to accomplish. Further, children develop writing skills in a manner that mirrors the way they learn to talk. Teachers, then, teach “writers” rather than “writing,” and children become writers by the very act of writing itself. We believe that teachers help children view and define themselves as thinkers and writers by involving them with the real occurrences of their minds, hearts and world and that writing enhances the learning process of any subject at any level.

#### 2. Classroom culture of active literacy:

What teachers *do* in the classroom positively impacts students’ development as writers more often than what teachers *say* in the classroom. The conditions that promote the development of writers are the same as those that facilitate learning to talk:

- *Immersion*: creating a language-rich and print-rich environment
- *Demonstration*: modeling of writing in the classroom by the teacher
- *Expectation*: subtly communicating to children that they will learn to write
- *Responsibility*: giving students opportunities to be responsible for their own learning
- *Approximation*: encouraging and respecting children’s writing efforts
- *Employment*: making time and opportunities for writing
- *Feedback*: allowing patience with the growth process

National Heritage Academies wants its classrooms to be places where children come expecting to write each day with the knowledge that their efforts will be valued, supported and respected.

#### 3. A skill for thinking across the curriculum:

National Heritage Academies believes that students should have frequent and varied opportunities to write in *all* content areas. Writing is an aid to thinking and organizing ideas across the curriculum rather than merely a subset of the language arts curriculum. It is a balance of process (how people communicate) and product (what they communicate).

**Type One: Writing that has no correct answer – or, if there is a correct answer, it's okay to be wrong**

Purpose: To capture ideas, questions, reactions

Evaluation: A check + or -, 10 pts. or 0 pts., a “smiley face” or no “smiley face,” a jelly bean or a coffee bean . . . in other words – it’s up to you. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line  
2. Always label the type of writing  
3. Provide a minimum volume  
4. Provide a maximum time limit

Advantages: \*Spontaneous, minimal preparation \*Takes very little class time  
\*Effective thinking stimulus for all \*Promotes writing fluency

**Type Two: Writing that makes a point - has a correct answer**

Purpose: To show that the writer knows something about the topic or has thought about it

Evaluation: Type Two writing is like a quiz; mistakes in content count. Writing style and mechanics do not count – the content counts. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line  
2. Always label the type of writing  
3. Provide a maximum time limit  
4. Avoid numbering

Advantages: \*Spontaneous, little pre-planning \*Promotes writing fluency  
\*Quick assessment \*Promotes writing in the content areas

**Type Three: Writing that has content and focus correction areas**

Purpose: To produce a single draft that meets the standards set by the focus correction areas (FCA). Type Three writing is read out loud by the author to see if it does three things:

- Completes the assignment
- Sounds correct-easy to read
- **Avoids errors in the focus correction areas**

Evaluation: Evaluation is based solely on FCAs. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line  
2. Always place FCAs in the upper left  
3. Maximum of three focus areas/paper

Advantages: \*Very efficient \*Ease of evaluation

**Type Four: Writing that has been read out loud and critiqued by another – two drafts**

**Purpose:** To produce the best possible work in two drafts. Writer follows the same steps as Type Three, repeats steps with a peer, and produces the best possible second draft that is placed in **The Cumulative Writing Folder**.

**Evaluation:** Evaluation is based on focus correction areas. **“Reasonable best effort”**

**Basic Guidelines:** 1. Always skip a line  
2. Always place FCAs in the upper left  
3. Maximum of three focus areas/paper

**Advantages:** \*Fair, objective evaluations  
\*Provides a systematic, clear, and logical sequence of writing skills

**Type Five: Writing that can be published and go outside the classroom without explanation or qualification – multiple drafts**

**Purpose:** To produce the best writing possible. Writer follows the same steps as Type Four to create a paper void of errors.

**Evaluation:** Type Five writing is usually a major project. It must meet all standard conventions.

**Basic Guidelines:** 1. Always skip a line  
2. Always label the type of writing in rough drafts

**Advantages:** \*Great final product  
\*Real-world standards  
\*Promulgates full range of skills

It has been our experience that many teachers, especially after a full day workshop with opportunities for “hands-on” practice, can effectively implement many of our ideas in their own classrooms.

However, most teacher training has failed miserably because it tends to be “hit and run” in nature. A basic assumption of our work is that writing instruction will be most effective when it is supported by a program— a unified set of teaching techniques and expectations about student writing that are developed and reinforced over a period of years. This kind of program development takes time and commitment. We believe that writing instruction must also be evaluated on a regular basis to provide teachers and students with clear and achievable goals from one year to the next. Therefore we have developed an extensive variety of program development services:

**Examples of our teacher support and program development service sessions:**

- \* demonstration lessons
- \* establishing an in-house evaluation model
- \* individual department/grade level sessions
- \* developing strategies for state assessment tests
- \* practice developing great writing assignments
- \* practice developing appropriate FCAs

Developed by Mark E. Dressel, Collins Education Associate 616.361.1839

#### 4. **Managing and evaluating a program for writing:**

Because we understand that writing is a necessary skill for effective communication and expression, and realizing that people learn to write by writing, there must be a workable system of instruction. That system must be coupled with an assessment system to measure levels of achievement in both the student and the teacher.

National Heritage Academies has adopted **The Collins Cumulative Writing Folder Program** to support teachers in building an effective and experiential writing program within their classrooms and the school. The Collins Writing Program provides schools with a writing program— a unified set of techniques and expectations about student writing— that can be developed and reinforced over a period of years, as well as a way to measure levels of achievement in both students and teachers. It involves:

- Integrating writing across the curriculum using Five Types of Writing
- (noted on the following two pages)
- Encouraging a balance of process and product
- Encouraging ownership through a student-centered program of instruction
- Ensuring the development of critical writing and thinking skills
- Making the program student-centered
- Involving frequent writing opportunities
- Affording a practical and manageable program for both teacher and student.

The Cumulative Writing Folder Program consists of four elements: a writing management system and three teaching strategies. The strategies are:

- Oral reading
- Focus correcting
- Using past papers to teach new skills

The Program has been successfully used in special education, with the gifted and talented, and in English as a second language programs. Each element reinforces the others.

Realizing each teacher's need to understand instructional expectations as well as to be supported in those expectations, a workable "Scope and Sequence for the Teaching of Writers" will be forthcoming.

A list of resources from the Collins Education Associates follows The Collins Writing Strategies.

## COLLINS WRITING - TEACHER RESOURCES:

### Center for Effective Communication-Collins Education Associates LLC:

The following publications may be found on the *AcademyLink Purchase Order form* for **The Network (formerly Collins)** and can be purchased through your building principal (textbook budget). It is recommended that each teacher have the following:

1. **Cumulative Writing Folders** - for each student in grades 1-8 for use in helping to manage the classroom writing program. Teachers of grades 1-3 should order the **Primary Cumulative Writing Folders**. Teachers of kindergarten may want to develop their own "folder system" for writing management.
2. **Developing an Effective Writing Program for the Elementary Grades** by Gary Chadwell.
3. Middle School Teachers: **Developing Writing and Thinking Skills Across the Curriculum** by Gary Chadwell.

### Additional Recommended Resources:

1. Frank, Marjorie. **If You're Trying To Teach Kids How To Write...you've gotta have this book!** Incentive Publications, Inc., Nashville, Tennessee. 1979. (ISBN: 0-86530-317-7). Can be purchased through most bookstores. All Grades.
2. Areglado, Nancy and Dill, Mary. **Let's Write: A Practical Guide to Teaching Writing in the Early Grades— K-2.** Scholastic Professional Books, New York. 1997, (ISBN: 0-590-93102-4). Can be purchased through teacher stores or most bookstores. Early Grades.
3. Butler, Andrea and Turbill, Jan. **Towards a Reading-Writing Classroom.** Primary English Teaching Association, NSW, Australia: Heinemann, 1984. (ISBN: 0-435-08461-5).
4. Atwell, Nancie. **Coming to Know: Writing to Learn in the Intermediate Grades.** Portsmouth, NH: Heinemann, 1990. Presents many ways to use writing in content area study, including learning logs and research projects in every subject.
5. Calkins, Lucy. **The Art of Teaching Writing.** Portsmouth, NH: Heinemann, 1994.
6. Lane, Barry. **After 'The End': Teaching and Learning Creative Revision.** Portsmouth, NH: Heinemann, 1993.

## Assessing Your Current Writing Program

You already have a writing program in place in your classroom, one shaped by your beliefs and attitudes about writing instruction. It's driven by techniques and strategies you use with your students, and it's organized around a system you use for managing the writing process. The survey that follows will help you assess your current writing program by helping to identify what you emphasize most and least in your own classroom. It will give you a snapshot of your current writing program.

After you complete this survey, your findings will enable you to reaffirm, challenge, or recalibrate some of your assumptions and help you make strategic decisions about ways to improve your writing program.

### Writing Program Assessment Survey For Elementary Grades

Instructions: For each of the activities that follow, give a rating of 0-5 that most accurately describes how often you do the activity during a year. This self-assessment will be most valuable if you are candid in your estimates. Try not to overestimate; rather than rating the items based on how much you like them, rate them on how often you actually do them.

- 0 - Do not do
- 1 - Infrequently (one to three times a year)
- 2 - Occasionally (four to six times a year)
- 3 - Regularly (once a month)
- 4 - Frequently (twice a month)
- 5 - Very frequently (once a week or more)

**PROGRAM VALUES**

- \_\_\_ 1. Give students low-risk writing opportunities such as free writing or journal writing.
- \_\_\_ 2. Take overt steps, such as writing along with your students, to create a classroom culture of active literacy.
- \_\_\_ 3. Provide frequent opportunities for students to write in all content areas.

**PREWRITING ACTIVITIES**

- \_\_\_ 4. Involve students in writing projects based on their personal experiences, reading experiences, or class discussions.
- \_\_\_ 5. Engage students in discussions and activities that clarify writing projects, generate ideas, and help in planning and organizing writing.
- \_\_\_ 6. Provide models, including examples of other students' writing, to help guide your students' writing efforts.

**DRAFTING ACTIVITIES**

- \_\_\_ 7. Provide opportunities for students to write in many forms (narratives, letters, reports, poems, and so on).
- \_\_\_ 8. Provide opportunities for students to write for various *purposes* (to inform, entertain, persuade, explain, and so on) and various *audiences* (parents, peers, authors, public officials, and others).
- \_\_\_ 9.\* Provide students with specific criteria that they can use to guide their thinking and writing and that you use to provide feedback on the writing project.

**REVISING AND EDITING ACTIVITIES**

- \_\_\_ 10. Model revising strategies (elaborating, sentence combining, eliminating unnecessary words or phrases, checking for sentence variety, and so on) that help students review and improve their writing.
- \_\_\_ 11. Teach grammar and mechanical skills in relation to students' current writing experiences.
- \_\_\_ 12. Encourage students to proofread their own work (checking for punctuation, capitalization, and spelling).
- \_\_\_ 13. Encourage students to peer-edit each other's papers before they are finalized.
- \_\_\_ 14. Involve students in maintaining a portfolio of their writing that they can review and use to develop new writing skills.

**SHARING ACTIVITIES**

- \_\_\_ 15.\* Encourage students to read their work out loud – to themselves and others – as part of the writing process.
- \_\_\_ 16. Display or "publish" examples of high-quality writing.
- \_\_\_ 17. Give writers positive, specific feedback on their work.
- \_\_\_ 18. Conduct individual writing conferences with students.

\_\_\_ **Total Score**

\*One of the Critical Four strategies

## Interpreting Your Score

*What does the survey tell me?* Even before you total your score, a look at your survey provides some insights into your writing program. Since time is a valuable commodity in the classroom, your responses show you how you are using this scarce resource. The strategies you have rated as 4 or 5 are the “cornerstones” of your writing program because you are giving significant time to them. These are the strategies that drive your writing program.

The survey also shows you areas where you are giving little emphasis. These areas may not be emphasized in your classroom for any number of reasons. You may feel that they are not critical to your students' development as writers or that they are not appropriate for your students. Other low-rated strategies may be ones that you value but have not yet been able to effectively incorporate into your teaching.

*What is a good score?* Obviously, as your score approaches 90 it means that you have rated virtually all of the 18 items at 4 or 5. Although these 18 items represent an excellent overview of effective writing practice, you may ask whether it is necessary to use all of them with great frequency to have an effective writing program. Your question is a common one: that subsumes other, related questions: Can I do all these things regularly with the number of students I have? With my time constraints? With my curriculum demands?

*So, what's the lowest score I could get and still have an effective writing program?* A score in the 54-72 range is the basis for an effective writing program. A score higher than 72 would indicate that writing is already a prominent component of your classroom culture. A score lower than 54 (18 items multiplied by an average score of 3) could indicate that writing is not done often enough or that your writing instruction does not provide the kind of consistent focus students need to improve as writers. The strategies on this survey have little impact on improving students' writing when used randomly.

*How do I use the survey to improve my writing program?* In addition to looking at your overall score, you might want to look at your scores in the five sections of the survey – Program Values, Prewriting Activities, Drafting Activities, Revising and Editing Activities, and Sharing Activities. Do your scores in one or more sections seem noticeably higher or lower than scores in other sections?

In reviewing your scores in the five sections, don't overlook the fact that some of the strategies have benefits in several aspects of the writing process – not only the one in which it is categorized in the survey. A good example is item 15 (*Encourage students to read their work out loud – to themselves and others – as part of the writing process*) which is a strategy appropriate for drafting, revising and editing, as well as sharing. This is a critical strategy for young writers because it focuses attention on the overall quality of the written message rather than on the individual words. Its use is also beneficial in several stages of the writing process.

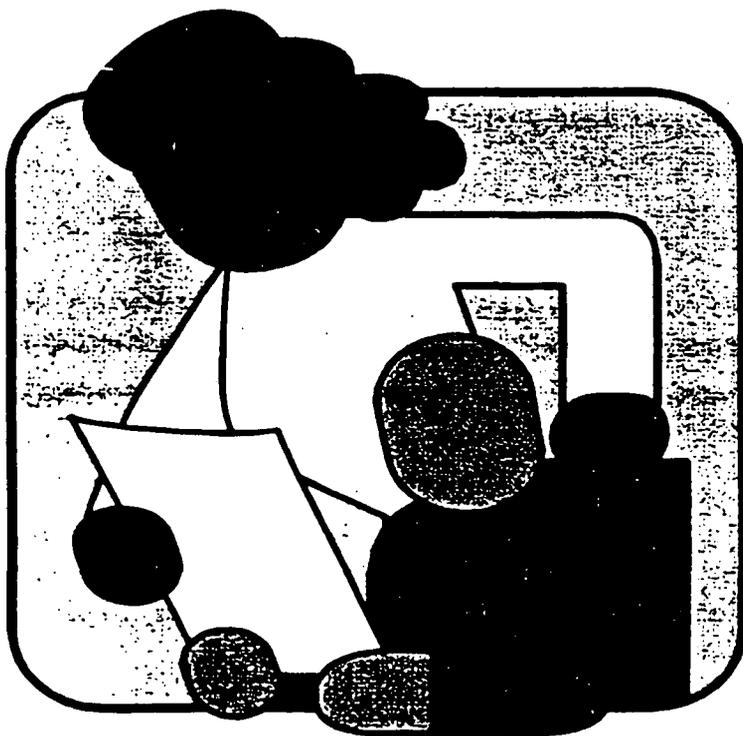
One way to use this survey is to consider carefully your scores on items 3, 9, 14, and 15 – the Critical Four strategies. I have identified these as the Critical Four strategies because high scores in these areas ensure that your writing program is headed in the right direction. It means that students are writing often, you are focusing your writing instruction, and you are showing students ways to be effective resources to themselves and others.

Making changes in any of these areas takes thought and effort, so avoid the temptation to change too many things at once. After reviewing your survey, choose two of the strategies that you feel would have the greatest impact on improving your students' writing and work on improving those. They may be two of the Critical Four or others that you think will benefit your students.

You may want to read more about the 18 strategies before you decide where to begin. Chapters 2-6 of this book focus on the strategies from the survey and Action Steps for each one. The remainder of the book looks at ways to use the Critical Four strategies to create an effective writing program for your young writers and provides some suggestions for communicating about your program to parents.

# MATH SEVENTH GRADE

**Saxon Math**  
**Saxon Math Assessment**  
**Pacing Whole Group Instruction**  
**Saxon Grade Level Curriculum**



## SAXON MATH

*Saxon Math* grew out of a decade of intense classroom interaction with students in which the goal was for students to learn and remember the foundational skills of mathematics. The term “foundational” is appropriate because mathematics, perhaps more than any other subject, is a cognitive structure that builds upon prior learning. The ultimate height and stability of the mathematical structure within each individual are determined by the strength of the foundation. The text, as well as each book that precedes or follows, provides the student with the time and opportunities necessary to build a rock-solid foundation in beginning mathematics. For this to occur it is essential that all practice problems and all problem sets be completed by the students.

### THE SAXON PEDAGOGY

Incremental development, continual review, and frequent, cumulative testing. There are three pillars of Saxon Mathematics.

- Incremental development means that concepts are taught in small, easily understood pieces that are presented in individual lessons over the course of the academic year.
- Once an increment has been taught, it is reviewed daily through worksheets and homework sets—a process called continual review. As concepts grow in complexity, earlier increments are included. Thus, all concepts and skills can be practiced on a daily basis without the homework sets becoming large and unwieldy. Over time, incremental development and continual review foster assimilation, mastery, and complete understanding of concepts and skills.
- Frequent, cumulative testing allows students to prove their mastery of skills before new concepts are introduced. Assessments encompass all concepts and skills that students have practiced.

### SUCCESS WITH SAXON MATHEMATICS

There is considerable evidence from the educational community to suggest why Saxon’s pedagogy of incremental development, continual review, and frequent, cumulative testing should be successful. What follows—support ranging from experimental studies to anecdotal evidence—suggests that this pedagogy is in fact successful.

Studies indicate that Saxon’s Mathematics texts:

- can increase student test scores (Reed 1983; McBee 1984; Sistrunk and Benton 1992); Calvery, Bell, and Wheeler 1993; Rentschler 1994; Mayers 1995; Sanders 1997);
- can benefit students of low and average ability (Klinge and Reed 1984; Johnson and Smith 1987; Calvery, Bell, and Wheeler 1993);
- can lower math anxiety in students (Lafferty 1994);
- may help minority students narrow the math achievement gap (Sistrunk and Benton 1992); and
- are preferred (over traditional texts) by students and faculty (Johnson and Smith 1987 and Nguyen 1994).

One of the most comprehensive studies of the effectiveness of Saxon textbooks was conducted between 1992 and 1994 by the Planning, Research, and Evaluation Department of the Oklahoma City public school system (Ngyuen 1994b). The study encompassed K-5 students in over three hundred classrooms using non-Saxon programs. Analysis of the 1994 ITBS scores for the Saxon students and a comparison group of the non-Saxon students revealed that:

*Overall, the Saxon group scored higher than the comparison group of students in all comparisons. Five of these comparisons were statistically significant ( $p < .01$ ): complete composite, total math, math concepts, problem solving, and reading comprehension. The other four comparisons also favored the Saxon group; however, the differences were not statistically significant: math computation, science, social studies, and total language.*

### Comments from teachers and administrators:

- *"The first four years (using Saxon) my class had the highest scoring on the state ISTEP test in Muncie, which has twelve elementary schools. Last year we were number one in problem solving in the city."* Mel Botkin, Retired Teacher, Muncie, IN
- *"Students are taking more math classes than ever before in the history of the school. In 1989 (before Saxon), we had about 30% of the student body in the math program. Today, almost the entire student body is involved."* Larry Cone, Teacher, Muskegon, MI
- *"I see improvement in retention of skills using Saxon at all levels. Often young people come into eighth grade believing they 'can't do math' and change their minds (after using) Saxon."* Cylinda Rucker, Teacher, Eagleville, MO
- *"Probably the most exciting thing about using Saxon this year was seeing students develop their ability to apply what they had already learned to new topics. Another tremendous benefit was no longer seeing the blank looks regarding topics covered earlier in the year."* Elizabeth A. Moody, Teacher, Hudson, NH
- *"All seventh-graders were tested before studying Saxon and scored in the range from 8<sup>th</sup> percentile to 97 percentile. Class average was 44<sup>th</sup> percentile. After one year of instruction using Saxon Algebra 1/2, the median score for the same students was 97<sup>th</sup> percentile."* Frederick H. Maas, Teacher, Santa Fe, NM
- *"Our math scores have dramatically improved. All of my teachers love the Saxon materials."* Mike Hanke, Principal, Green Bay, WI
- *"The special education students are catching up. Many no longer qualify for special education after two years of Saxon."* Marvin Miles, Teacher, Blackfoot, ID

### Conclusion

The Saxon pedagogy has its roots in the classroom. It is a method that was developed specifically to improve long-term retention of concepts and skills. For twenty years, and with increasing refinement, the Saxon pedagogy has been applied to a range of subjects and grade levels. Because of its effectiveness and ease of use, tens of thousands of teachers across the United States and abroad have embraced the Saxon methodology, and millions of students have benefited from mathematics instruction based on incremental development, continual review, and cumulative testing.

## SAXON MATH ASSESSMENT

### GENERAL ASSESSMENT

An available test booklet contains two forms of tests for every five lessons. The second test form may be used for make-up testing. Tests should be given about five lessons after the last concept has been taught. Thus Test 1, which covers topics from Lesson 1 through Lesson 5, should be given after Lesson 10. Test 2 should be given after Lesson 15, Test 3 after Lesson 20, and so on. This allows the students time to learn the new topic before being tested on it. Students will make excellent progress if they are able to score 80% or better on the tests. Students who fall below the 80% level should be given remedial attention immediately. Some teachers choose to test every ten lessons using only the even-numbered or odd-numbered tests. This is an acceptable alternative to testing every five lessons.

*Stephen Hake*  
*Tempe City, California*

*John Saxon*  
*Norman, Oklahoma*

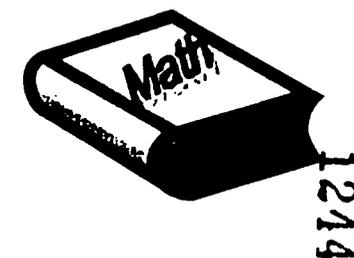
## PACING WHOLE-GROUP INSTRUCTION

When teaching the Saxon program through whole-group instruction, pacing is key. It is important that each student have the opportunity to complete the entire textbook during the school year. The chart below offers guidance about the number of lessons that should be completed during each grading period.

SAXON PUBLISHING			SCHOOLS USING QUARTER/SEMESTER SYSTEM			
Edition	Title	Total No. Lessons	1st Quarter Lessons	2nd Quarter Lessons	3rd Quarter Lessons	4th Quarter Lessons
2nd	<i>Math 54</i> Lessons and Problem Sets	141	1-35	36-70	71-105	106-141
2nd	<i>Math 54</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 65</i> Lessons and Problem Sets	140	1-35	36-70	71-105	106-140
2nd	<i>Math 65</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 76</i> Lessons and Problem Sets	138	1-35	36-70	71-105	106-138
2nd	<i>Math 76</i> Investigations	6	1	—	2-3	4-6
2nd	<i>Math 76</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 87</i> Lesson and Problem Sets	120	1-30	31-60	61-90	91-120
2nd	<i>Math 87</i> Investigations	12	1-3	4-6	7-9	10-12
2nd	<i>Math 87</i> Tests	24	1-5	6-11	12-17	18-Final
2nd	<i>Algebra 1/2</i> Lessons and Problem Sets	123	1-31	32-62	63-93	94-123
2nd	<i>Algebra 1/2</i> Extra Topics *	10	—	—	—	A-J
2nd	<i>Algebra 1/2</i> Tests	31	1-6	7-14	15-22	23-31

For example, at the end of the second quarter *Math 65* students should have completed Lesson 70 and Test 13.

\* These topics are discretionary enrichment units. The ones that are used should be taught in the final term of the academic year so that students will have the information fresh in their minds during standardized tests.



**Saxon Mathematics Curriculum  
Grade: 7**

<b>I. PATTERNS, RELATIONSHIPS, AND FUNCTIONS</b>	
<b>Content Standard 1: Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships. (Patterns)</b>	
<b>Objective</b>	<b>Pg.#'s Methodology</b>
1. Describe, analyze, and generalize patterns arising in a variety of contexts and express them in general terms.	43-44, 47-49, 58-60, 67-68, 111-113, 120-121, 134-135, 138-141, 221-222, 251, 303, 304, 320, 377-379, 427, 430-432, 599-600, 617, 622, 636
2. Represent and record patterns and relationships in a variety of ways, including tables, charts, and graphs, and translate between various representations.	44, 58-60, 67-68, 73, 85-86, 138-139, 197-198, 221-222, 251, 320, 377-379, 430-432, 532-533, 599-600
3. Use patterns and their generalizations to make and justify inferences and predictions.	43-44, 47-49, 58-60, 67-68, 111-113, 120-121, 134-135, 138-141, 221-222, 21, 303, 304, 320, 377-379, 427, 430-432, 532-533, 599-600, 617, 622, 636
4. Explore and describe visual and numeric patterns, including linear expressions, near-linear patterns, and symmetric and spatial patterns.	10-12, 74-75, 86-87, 100, 155, 158-159, 221-222, 251, 303-304, 319-320, 327-328, 427, 430-432, 472, 513-515, 532-533, 583-584, 651-653, 672-673
5. Use patterns and generalizations to solve problems and explore new content.	10-12, 74-75, 86-87, 100, 155, 158-159, 221-222, 251, 303-304, 319-320, 327-328, 427, 430-432, 472, 513-515, 532-533, 583-584, 599-600, 636, 651-653, 672-673
<b>Content Standard 2: Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change. (Variability and Change)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Identify and describe the nature of change; recognize change in more abstract and complex situations and explore different kinds of change and patterns of variation.	40, 58-60, 67-69, 83-85, 100-103, 106-107, 164-165, 172-173, 349-351, 354-355, 364, 394-395, 406-407, 448-449, 457-458, 460-461, 552-553, 576-577, 615, 665-668
2. Connect an initial state to a final state and generalize a rule that describes a pattern of change.	40, 58-60, 67-69, 83-85, 100-103, 106-107, 164-165, 172-173, 349-351, 354-355, 364, 394-395, 406-407, 448-449, 457-458, 460-461, 552-553, 576-577, 615, 665-668
3. Begin to investigate applications in bivariate data and linear relationships and explore questions of what will happen to one quantity if another variable is changed.	13-14, 153-155, 188-189, 339, 381-385, 418, 433-435, 464, 472-474, 494-495, 505, 507, 509-510, 515-516, 599-600, 604-605, 609-611, 638-639, 654-655, 672-673, 683

**Saxon Mathematics Curriculum  
Grade: 7**

4. Represent variability or change by ordered pairs, tables, graphs, and equations.	44, 73, 85-86, 138-141, 197-198, 339-340, 505-507, 515-516
5. Differentiate between functions and relationships such as linear vs. not linear or continuous vs. non-continuous.	303-305, 319-320, 327-330, 339-340, 358-360, 423-424, 438-440, 505-507, 598-600, 614-616, 624-625, 654-656, 676-677
6. Continue to explore relationships arising from interesting contexts and use variables and relationships to solve mathematical problems.	13-14, 44, 73, 85-86, 153-155, 303-305, 339-340, 381-385, 418, 423-424, 464, 472, 474, 494-495, 505-507, 509-510, 515-516, 598-600, 609-611, 638-639, 672-673, 676-677, 680-682

**II. GEOMETRY AND MEASUREMENT**

***Content Standard 1: Students develop spatial sense, use shapes as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes. (Shape and Shape Relationships)***

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Distinguish among shapes and differentiate between examples and non-examples of shapes based on their properties; generalize about shapes of graphs and data distributions.	44, 73, 85-86, 138-139, 197-198, 303-304, 319, 327-329, 339-340, 377, 382, 418-419, 427, 430-432, 464, 513-515, 583-584, 676-677
2. Generalize the characteristics about shapes and apply those generalizations to classes of shapes.	188, 303-304, 319-320, 327-329, 377-378, 382, 423-424, 427, 430-432, 464, 513-515, 520, 526-528, 532-533, 583-584, 676-677
3. Derive generalizations about shapes and apply those generalizations to develop classifications of familiar shapes.	44, 73, 85-86, 138-139, 197-198, 303-304, 319, 327-329, 339-340, 377, 382, 418-419, 427, 430-432, 464, 513-515, 526-528, 532-533, 583-584, 599-600, 651-653, 676-677
4. Construct familiar shapes using coordinates, appropriate tools (including technology), sketching and drawing two- and three dimensional shapes.	188, 303-304, 319-320, 327-329, 377-378, 382, 423-424, 427, 430-432, 464, 513-515, 520, 526-528, 532-533, 583-584, 676-677
5. Combine, dissect, and transform shapes.	188, 303-304, 319-320, 327-328, 377, 427, 430-432, 504-505, 520, 526-527, 532-533, 583-584, 676-677
6. Generalize about the common properties of similar, congruent, parallel and perpendicular shapes and verify their generalizations informally.	44, 73, 85-86, 138-139, 197-198, 303-304, 319, 327-329, 339-340, 358-360, 377, 382, 418-419, 427, 430-432, 464, 504-505, 513-515, 520, 526-528, 532-533, 583-584, 599, 600, 651-653, 676-677
7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems.	44, 73, 85-86, 138-139, 188, 197-198, 303-304, 319-320, 327-329, 339-340, 358-360, 382, 418-419, 427, 430-432, 464, 504-505, 513-515, 520, 526-528, 532-533, 583-584, 599, 600, 651-653, 665-667, 676-677

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**Content Standard 2: Students identify locations of objects, identify location relative to other objects, & describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object. (Position)**

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Locate and describe objects in terms of their position, including compass directions, Cartesian coordinates, latitude and longitude and midpoints.	339-340, 504-506
2. Locate and describe objects in terms of their orientation and relative position, including coincident, collinear, parallel, perpendicular; differentiate between fixed (e.g., N-S-E-W) and relative (e.g. right-left) orientations; recognize and describe examples of bilateral and rotational symmetry.	327, 339-340, 504, 520-521, 532-533, 665-667
3. Describe translations, reflections, rotations, and dilations, using the language of transformations and employ transformations to verify congruence of figures.	520-521, 522, 526-527
4. Locate the position of points or objects described by two or more conditions; locate all the points (locus) that satisfy a given condition.	339-340, 358-360, 361
5. Use concepts of position, direction, and orientation to describe the physical world and to solve problems.	not addressed in Math 76

**Content Standard 3: Students compare attributes of two objects, or of one object with a standard (unit), and analyze situations to determine what measurement(s) should be made and to what level of precision. (Measurement)**

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Select and use appropriate tools; measure objects using standard units in both the metric and common systems and measure angles in degrees.	30-32, 35-36, 78-80, 433-435, 487-489, 505-506
2. Identify the attribute to be measured and select the appropriate unit of measurement for length, mass (weight), time, temperature, perimeter, area, volume, and angle.	30-32, 35-36, 44-45, 59-60, 78-80, 153-154, 188-189, 373-374, 381-385, 417-419, 433, 435, 472-474, 487-488, 505-506, 509-510, 556-557, 609-611, 638-639, 647-648, 658, 672, 673, 683
3. Estimate measures with a specified degree of accuracy and decide if an estimate or a measurement is a "close enough."	604-605
4. Interpret measurements and recognize that two objects may have the same measurement on one attribute (e.g., area) but not necessarily on another (e.g., perimeter)	30-32, 35-36, 44-45, 59-60, 78-80, 153-154, 188-189, 373-374, 381-385, 417-419, 433, 435, 472-474, 487-488, 505-506, 509-510, 556-557, 604-605, 609-611, 638-639, 647-648, 658, 672-673, 683

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5. Use proportional reasoning and indirect measurements to draw inferences.	30-32, 373-374, 482-483, 494-495, 566-567, 604-605
6. Apply measurement to describe the real world and to solve problems.	30-32, 35-36, 44-45, 59-60, 78-80, 153-154, 188-189, 373-374, 381-385, 417-419, 433, 435, 472-474, 482-483, 487-488, 494-495, 505-506, 509-510, 556-557, 604-605, 609-611, 638-639, 647-648, 658, 672-673, 683

### III. DATA ANALYSIS AND STATISTICS

**Content Standard 1: Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats. (Collection, Organization, Presentation of Data)**

<i>Objective</i>	<i>Lessons/Methodology</i>
1. Collect and explore data through observation, measurement, surveys, sampling techniques and simulations.	138-141, 398-399, 438-440, 499-501, 547-548
2. Organize data using tables, charts, graphs, spreadsheets, and data banks.	44, 73, 85-86, 138-141, 197-198, 339-340
3. Present data using a variety of appropriate representations and explain why representation is preferred over another or how a particular representation may bias the presentation.	44, 73, 85-86, 138-141, 197-198, 339-340, 398-399, 438-440, 499-501, 547-548
4. Identify what data are needed to answer a particular question or solve a given problem, and design and implement strategies to obtain, organize, and present those data.	44, 73, 85-86, 138-141, 197-198, 339-340, 398-399, 438-440, 499-501, 547-548

**Content Standard 2: Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. (Description and Interpretation)**

<i>Objective</i>	<i>Lessons/Methodology</i>
1. Critically read data from tables, charts or graphs, and explain the source of the data and what the data represent.	44, 73, 85-86, 138-141, 197-198, 339-340
2. Describe the shape of a data distribution and identify the center, the spread, and what the data represent.	44, 73, 85-86, 138-141, 197-198, 339-340, 552-553
3. Draw, explain, and justify conclusions based on data.	44, 73, 85-86, 138-141, 197-198, 339-340, 552-553
4. Critically question about the sources of data; the techniques used to collect, organize, and present data; the inferences drawn from the data; and the possible sources of bias in the data or their presentation.	44, 73, 85-86, 138-141, 197-198, 339-340, 552-553
5. Formulate questions and problems and gather and interpret data to answer those questions.	44, 73, 85-86, 138-141, 197-198, 339-340, 552-553

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**Content Standard 3: Students draw defensible inferences about unknown outcomes, make prediction: and identify the degree of confidence they have in their predictions. (Inference and Prediction)**

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Make and test hypothesis.	
2. Design experiments to model and solve problems using sampling, simulations and controlled investigations.	44, 58-60, 67-69, 73, 83-86, 106-107, 138-141, 159-161, 197-198, 339-340, 358-361, 398-399, 439, 482-483, 492-495, 532-533, 552-553, 575-576, 580-582, 599-600, 627-628, 642-643, 654-656
3. Formulate and communicate arguments and conclusions based on data and evaluate their arguments and those of others.	44, 58-60, 67-69, 73, 83-86, 106-107, 138-141, 159-161, 197-198, 339-340, 358-361, 398-399, 439, 482-483, 492-495, 532-533, 552-553, 575-576, 580-582, 599-600, 627-628, 642-643, 654-656
4. Make predictions and decisions based on data, including interpolations and extrapolations.	44, 58-60, 67-69, 73, 83-86, 106-107, 138-141, 159-161, 197-198, 339-340, 358-361, 398-399, 439, 482-483, 492-495, 532-533, 552-553, 575-576, 580-582, 599-600, 627-628, 642-643, 654-656
5. Employ investigations, mathematical models and simulations to make inferences and predictions to answer questions and solve problems.	44, 58-60, 67-69, 73, 83-86, 106-107, 138-141, 159-161, 197-198, 339-340, 358-361, 398-399, 439, 482-483, 492-495, 532-533, 552-553, 575-576, 580-582, 599-600, 627-628, 642-643, 654-656

### IV. NUMBER SENSE AND NUMERATION

**Content Standard 1: Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special numbers. (Concepts and Properties of Numbers)**

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Develop an understanding of integers and rational numbers and represent rational numbers in both fraction and decimals form.	26-28, 63-64, 77-78, 149-150, 168-169, 172-173, 201-203, 213-221-222, 241-242, 278-179, 354-355, 422, 445, 448-449, 457-458, 468-469, 588-590, 660-661
2. Extend their understanding of numeration systems to include decimal numeration and non-decimal numeration systems.	100, 149-150, 158-159, 168-169, 173-174, 183-184, 187-188, 191-193, 212-213, 217-218, 221, 223, 226-227, 235-237, 241-242, 247-248, 251, 254-255, 433-445, 468-469, 505, 614-617
3. Develop an understanding of the properties of the properties of the integer and rational number systems (e.g., order, density) and of the properties of the special numbers 0, 1 and	100, 149-150, 158-159, 168-169, 173-174, 183-184, 187-188, 191-193, 212-213, 217, 218, 221, 223, 226-227, 235-237, 241-242, 247-248, 251, 254-255, 339-340, 358-361, 433-435, 438-440, 443-445, 468, 469, 472-474, 505, 515-516, 614-617

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4. Apply their understanding of number systems to model and solve mathematical and applied problems.	35-36, 100, 149-150, 158-159, 168-169, 173-174, 183-184, 187-188, 191-193, 212-213, 217, 218, 221, 223, 226-227, 235-237, 241-242, 247-248, 251, 254-255, 339-340, 358-361, 433-435, 438-440, 443-445, 468, 469, 472-474, 505, 515-516, 614-617, 642, 643, 654-656
<b>Content Standard 2: Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. (Representation and Uses of Numbers)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Give geometric representations of fractions, prime and composite numbers, triangular and square numbers, and other number concepts; represent rational numbers and integers on the number line.	63-64, 77-78, 100-103, 111-113, 120-121, 134-135, 153-154, 241-242, 294-295, 308, 389-391, 422, 672-673
2. Recognize equivalent representations of a number, especially fractions, decimals and percents, and translate freely among representations.	164-165, 172-174, 206-208, 350-351, 354-355, 364-365, 406-407, 448-449, 457-458, 468-469, 576-577, 618-620
3. Distinguish between numbers that are used for counting, numbers that are used for ordering, numbers that are used for measuring, and numbers that are used for naming.	30, 35-36, 39, 153-155, 188-189, 294-295, 308, 373, 381-385, 417-419, 422, 433-435, 487-488, 505-506, 509-510, 566-567, 604-605, 628, 638-639, 672-673
4. Develop and refine strategies for estimating quantities, including fractional quantities, and evaluate the reasonableness and appropriateness of their estimates.	72-73, 83-85, 212-213, 247-248, 255, 453-454, 604-605, 627-628
5. Select appropriate representations for numbers, including integers and rational numbers, in order to simplify and solve problems.	30, 35-36, 39, 153-155, 164-165, 172-174, 188-189, 206-208, 294-295, 308, 350-351, 354-355, 364-365, 373, 381-385, 406-407, 417, 419, 422, 433-435, 448-449, 457-458, 468-469, 487-488, 505-506, 509-510, 566-567, 604-605, 618-620, 628, 638-639, 672-673
<b>Content Standard 3: Students investigate relationships such as equality, inequality, inverses, factors, and multiples, and represent and compare very large and very small numbers. (Number Relationships)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Compare and order integers and rational numbers using relations of equality and inequality.	40, 63-64, 100-103, 164-165, 213-214, 278-279, 350-351, 354-355, 364-365, 394-396, 406-407, 422, 448-450, 468-469, 571-573, 576-577
2. Express numerical comparisons as ratios and rates.	398-399, 494-495, 499-501, 547-548

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3. Distinguish between prime and composite numbers; identify factors and multiples, common factors and multiples, and relatively prime numbers; and apply divisibility tests to numbers.	89-98, 96-97, 144-145, 148-149, 295, 308-3...
4. Explain the meaning of powers and roots of numbers and use calculators to compute powers and square roots.	226-227, 251, 349-350, 423-424, 598-599
4. Apply their understanding of number relationships in solving problems.	40, 63-64, 89-92, 96-97, 100-103, 144-145, 148-149, 164-165, 213-214, 278-279, 350-351, 354-355, 364-365, 394-396, 398-399, 406-407, 422, 448-450, 468, 469, 494-495, 499-501, 547-547, 571-573, 576-577, 604-606, 624-626, 654-656, 672-674, 676-677
<b>V. NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING</b>	
<b>Content Standard 1: Students understand and use various types of operations (e.g. addition, subtraction, multiplication, division) to solve problems. (Operations and their Properties)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Use manipulatives and diagrams to model operations and their inverses with integers and rational numbers and relate the models to their symbolic expressions.	63-64, 77-78, 100-103, 120-121, 134-135, 149-150, 422, 588-590, 660-661
2. Compute with integers, rational numbers, and simple algebraic expressions using mental computation, estimation, calculators, and paper-and-pencil; explain what they are doing and how they know which operations to perform in a given situation.	63-64, 77-78, 100-103, 115-117, 142-144, 178-179, 242-244, 259-261, 275, 285, 286, 345, 368-369, 4. 588-590, 593-595, 615, 627-628, 660-661
3. Describe the properties of operations with rationals and integers (e.g., closure; associative, commutative and distributive properties) and give examples of how they use those properties.	222-223
4. Efficiently and accurately apply operations with integers, rational numbers and simple algebraic expressions in solving problems.	63-64, 77-78, 100-103, 115-117, 120-121, 134-135, 142-144, 178-179, 242-244, 259-261, 274-275, 285, 286, 345, 368-369, 422, 445, 588-590, 593-595, 615, 627-628, 660-661
<b>Content Standard 2: Students analyze problems to determine an appropriate process for solution and use algebraic notations to model or represent problems. (Algebraic and Analytic Thinking)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Read and write algebraic expressions; develop original examples expressed verbally and algebraically; simplify expressions and translate between verbal and algebraic expressions; and solve linear equations and inequalities	153-154, 158-159, 188-189, 349-350, 381-385, 398-399, 417-419, 433-435, 438-440, 443-444, 472-474, 492-495, 499-501, 505, 509-510, 515-516, 552-553, 598-600, 604-605, 614-615, 628, 633, 654-656, 660-661

<p>2. Represent algebraic concepts with geometric models (e.g., algebra tiles), physical models (e.g., balance beam), tables and graphs; and write algebraic expressions to correspond to the multiple representations.</p>	<p>44, 73, 85-86, 138-139, 153-154, 158-159, 188-189, 197-198 349-350, 381-385, 398-399, 417-419, 433-435, 438-440, 443-444, 472-474, 492-495, 499-501, 505, 509-510, 515-516, 552-553, 598-600, 604-605, 614-615, 628, 633, 654-656, 660-661</p>
<p>3. Solve linear equalities and inequalities using algebraic and geometric methods, and use the context of the problem to interpret and explain their solutions.</p>	<p>44, 73, 85-86, 138-139, 153-154, 158-159, 188-189, 197-198 349-350, 381-385, 398-399, 417-419, 433-435, 438-440, 443-444, 472-474, 492-495, 499-501, 505, 509-510, 515-516, 552-553, 598-600, 604-605, 614-615, 628, 633, 654-656, 660-661</p>
<p>4. Analyze problems modeled by linear functions, determine strategies for solving the problems and evaluate the adequacy of the solutions in the context of the problems.</p>	<p>44, 73, 85-86, 138-139, 153-154, 158-159, 188-189, 197-198 349-350, 381-385, 398-399, 417-419, 433-435, 438-440, 443-444, 472-474, 492-495, 499-501, 505, 509-510, 515-516, 552-553, 598-600, 604-605, 614-615, 628, 633, 654-656, 660-661</p>
<p>5. Explore problems that reflect the contemporary uses of mathematics in significant contexts and use the power of technology and algebraic and analytic reasoning to experience the ways mathematics is used in society.</p>	<p>44, 73, 85-86, 138-139, 153-154, 158-159, 188-189, 197-198 349-350, 381-385, 398-399, 417-419, 433-435, 438-440, 443-444, 472-474, 492-495, 499-501, 505, 509-510, 515-516, 552-553, 598-600, 604-605, 614-615, 628, 633, 654-656, 660-661</p>

**VI. PROBABILITY AND DISCRETE MATHEMATICS**

*Content Standard 1: Students develop an understanding of the notion of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given event based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.*  
*(Probability)*

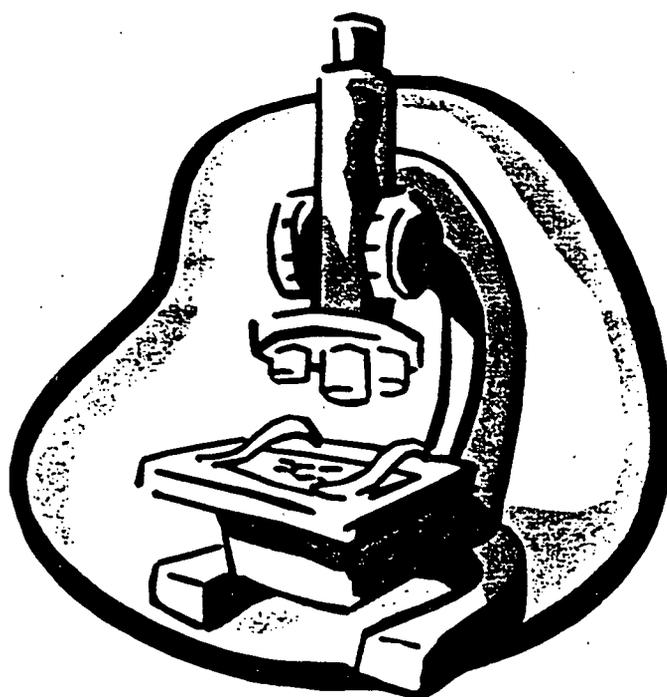
<b>Objective</b>	<b>Lessons/Methodology</b>
<p>1. Describe events as likely or unlikely and give qualitative and quantitative descriptions of the degree of likelihood.</p>	<p>438-440, 499-501, 642-643, 654-655</p>
<p>2. Describe probability as a measure of certainty ranging from 0 to 1 and conduct activities that allow them to express probabilities of simple events in mathematical terms.</p>	<p>438-440, 499-501, 642-643, 654-655</p>
<p>3. Conduct experiments and give examples to illustrate the difference between dependent and independent events.</p>	<p>438-440, 499-501, 642-643, 654-655</p>

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4. Explain the difference between probabilities determined from experiments or chance events (empirical) and probabilities derived mathematically (theoretical), and explain how the empirical probability changes for a large number of trials.	438-440, 499-501, 642-643, 654-6
5. Conduct probability experiments and simulations to model and solve problems.	438-440, 499-501, 642-643, 654-655
<b>Content Standard 2: Students investigate practical solutions such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design. (Discrete Mathematics)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Use manipulatives and diagrams and the fundamental theorem of counting to count permutations and combinations.	43, 83, 111-113, 120-122, 438-440, 482-483, 547-548, 598-600, 614-615
2. Use sets and set relationships to explore and solve simple algebraic and geometric problems.	338-340, 358-359, 360-361, 598-600, 614-615
3. Solve problems involving networks, for example planning delivery routes or counting paths between points.	358-359, 651-653
4. Explore recurrence relations and iterations.	138-141, 438-440, 492-494, 499-501, 599-600, 642-643, 654-6
5. Continue to use manipulatives and drawings to model the concepts and procedures for the standard arithmetic algorithms, and develop and analyze their own and other students' algorithms to accomplish a task or solve a mathematical problem.	43, 83, 111-113, 120-121, 138-141, 338-340, 358-359, 360-361, 438-440, 482-483, 492, 494, 499-501, 547-548, 599-600, 614-615, 642-643, 651-653, 654-656
6. Use discrete mathematics concepts described above to model situations and solve problems; and look for whether or not there is a solution (existence problems), determine how many solutions there are (counting problems), and decide upon a best solution (optimization problems)	43, 83, 111-113, 120-121, 138-141, 338-340, 358-359, 360-361, 438-440, 482-483, 492, 494, 499-501, 547-548, 588-590, 598-600, 614-615, 642-643, 651-653, 654-656, 660-661

**SCIENCE  
SEVENTH GRADE**

**NHA Science Philosophy  
Content Standards and Objectives  
Science Objective Summaries/Links  
Grade Level Schedule  
The Teaching of Origins**



## NHA SCIENCE PHILOSOPHY

National Heritage Academies believes in excellence in science education. Our curriculum is based on:

### NHAGOSE Standards (National Heritage Goals and Objectives for Science Education)

Nhagose standards are the state requirements of what all students need to know and be able to do in the subject of Science. A state standardized assessment tool is used to provide feedback on how well the objectives have been covered. Our curriculum has been carefully aligned so as to cover these objectives and skills consistently throughout all grades.

### Core Knowledge (content objectives)

The Core Knowledge Sequence represents a first and ongoing attempt to state specific core knowledge that children should learn. It is designed to encourage steady academic progress as children build their knowledge from one year to the next. Core Knowledge objectives cover much of the same information as the state standards, thus, they are not listed twice. For those objectives/units that are specific to Core Knowledge, they are labeled as such and should be covered when possible. It is National Heritage Academies' goal for the Core Knowledge to account for approximately 50% of the science curriculum.

NHA teachers play significant role in the creation of our science curriculum. Besides the extensive work of our science specialist, Randy Creswell, many teachers have contributed time and effort into writing units and/or committee work where much of our information such as experiment tables were compiled.

Our teachers plan their lessons using the content objectives and lesson ideas presented in the binder. Principals will provide the materials and resources needed to accompany the plans.

*SCIENTIFICALLY LITERATE STUDENTS KNOW HOW TO...USE KNOWLEDGE...  
TO ENGAGE IN ACTIVITIES...IN REAL-WORLD CONTEXTS.*

<b>I. CONSTRUCT NEW SCIENTIFIC AND PERSONAL KNOWLEDGE</b>	
<b>Content Standard 1: All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology; learn from books and other sources of information; communicate their findings using appropriate technology; and reconstruct previously learned knowledge.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Generate scientific questions about the world based on observation.	C 1
2. Design and conduct simple investigations.	C 2
3. Investigate toys / simple appliances and explain how they work, using instructions and appropriate safety precautions.	C 3
4. Use measurement devices to provide consistency in investigation.	C 4
5. Use sources of information to help solve problems.	C 5
6. Write and follow procedures in the form of step-by-step instructions, recipes, formulas, flow diagrams, and sketches.	C 6
<b>II. REFLECT ON THE NATURE, ADEQUACY, AND CONNECTIONS ACROSS SCIENTIFIC KNOWLEDGE</b>	
<b>Content Standard 2: All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Evaluate the strength and weaknesses of claims, arguments, or data.	R 1
2. Describe limitations in personal knowledge.	R 2
3. Show how common themes of science, mathematics, and technology apply in real-world contexts.	R 3
4. Describe the advantages and risks of new technologies.	R 4
5. Recognize the contributions made in science by cultures and individuals of diverse backgrounds.	R 5
<b>III. USE SCIENTIFIC KNOWLEDGE FROM THE LIFE SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>1. Content Standard 1: All students will apply an understanding of cells to the functioning of multicellular organisms; and explain how cells grow, develop, and reproduce.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe similarities / differences between single-celled and multicellular organisms.	LC 2
2. Explain why specialized cells are needed by plants and animals.	LC 3
3. Explain how cells use food as a source of energy.	LC 4

# MIDDLE SCHOOL SCIENCE CONTENT STANDARDS

<b>Content Standard 2: All students will use classification systems to describe groups of living things; compare and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.</b>	
<b>Objective</b>	<b>Lesson/Methodology</b>
1. Compare and classify familiar organisms into major groups on the basis of their structure.	LO 6
2. Describe the life cycle of a flowering plant.	LO 7
3. Describe evidence that plants make and store food.	LO 8
4. Explain how selected systems and processes work together in plants and animals.	LO 9
<b>Content Standard 3: All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.</b>	
<b>Objectives</b>	<b>Lessons/Methodology</b>
1. Describe how the characteristics of living things are passed down through generations.	LH 2
2. Describe how heredity and environment may influence / determine characteristics of an organism.	LH 3
<b>Content Standard 4: All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments; and analyze how species change through time.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe how biologists might trace possible evolutionary relationships among present and past life.	LE 3
<b>Content Standard 5: All students will explain how parts of an ecosystem are related and how they interact; explain how energy is distributed to living things in an ecosystem; investigate and explain how communities of living things change over a period of time; describe how materials cycle through an ecosystem and get reused in the environment; and analyze how humans and the environment interact.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe common patterns of relationships among populations.	LEC 6
2. Predict the effects of changes in one population in a food web on other populations.	LEC 7
3. Describe how all organisms in an ecosystem acquire energy directly or indirectly from sunlight.	LEC 8
4. Describe the likely succession of a given ecosystem over time.	LEC 9
5. Identify some common materials that cycle through the environment.	LEC 10
6. Describe ways in which humans alter the environment.	LEC 11
7. Explain how humans use and benefit from plant and animal materials	LEC 12

<b>IV. USE SCIENTIFIC KNOWLEDGE FROM THE PHYSICAL SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>Content Standard 2: All students will investigate, describe, and analyze ways in which matter changes; describe how living things and human technology change matter and transform energy; explain how visible changes in matter are related to atoms and molecules; and how changes in matter are related to changes in energy.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe common physical changes in materials; evaporation, condensation, thermal expansion, and contraction.	PCM 4
2. Describe common chemical changes in terms of properties of reactants and products.	PCM 5
3. Distinguish between physical and chemical changes in natural and technological systems.	PCM 6
4. Describe how waste products accumulating from natural and technological activities create pollution.	PCM 7
5. Explain physical changes in terms of the arrangement and motion of atoms and molecules.	PCM 8
<b>Content Standard 1: All students will measure and describe the things around us; explain what the world around us is made of; identify and describe forms of energy; and explain how electricity and magnetism interact with matter.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Measure physical properties of objects and substances.	PME 8
2. Describe when length, mass, weight, area, or volume are appropriately to describe the size of an object.	PME 9
3. Classify objects as elements, compounds, or mixtures.	PME 10
4. Describe matter as consisting of extremely small particles (atoms) that bond to form molecules.	PME 11
5. Describe the arrangement and motion of molecules in solids, liquids, and gasses.	PME 12
6. Describe energy and the many common forms it takes.	PME 13
7. Describe how common forms of energy can be converted, one to another.	PME 14
8. Describe electron flow in simple electrical circuits.	PME 15
9. Use electrical currents to create magnetic fields.	PME 16
<b>Content Standard 3: All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.</b>	
<b>Objective</b>	<b>Lesson/Methodology</b>
1. Qualitatively describe and compare motions in three dimensions.	PMO 4
2. Relate changes in speed or direction to unbalanced forces in two dimensions.	PMO 5
3. Describe the forces exerted by magnets, electrically charged objects, and gravity.	PMO 6

4. Design strategies for moving objects by means of the application of forces, including the use of simple machines.	PMO 7
<b>Content Standard 4: All students will describe sounds and sound waves; explain shadows, color, and other light phenomena; measure and describe vibrations and waves; and explain how waves and vibrations transfer energy.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Explains how sound travels through different media.	PWV 6
2. Explain how echoes occur and how they are used.	PWV 7
3. Explain how light helps us to see.	PWV 8
4. Explain how objects or media reflect, refract, transmit, or absorb light.	PWV 9
5. Describe the motion of pendulums or vibrating objects.	PWV 10
6. Explain how waves transmit energy.	PWV 11
<b>V. USING SCIENTIFIC KNOWLEDGE FROM THE EARTH AND SPACE SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>Content Standard 1: All students will describe the earth's surface; describe and explain how the earth's features change over time; and analyze effects of technology on the earth's surface and resources.</b>	
<b>Objectives</b>	<b>Lessons/Methodologies</b>
1. Describe and identify surface features using maps.	EG 7
2. Explain how rocks and minerals are formed.	EG 8
3. Explain how rocks and fossils are used to determine the age and geological history of the earth.	EG 9
4. Explain how rocks are broken down, how soil is formed, and how surface features change.	EG 10
5. Explain how technology changes the surface of the earth.	EG 11
<b>Content Standard 2: All students will demonstrate where water is found on the earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.</b>	
<b>Objective</b>	<b>Lessons/Methodologies</b>
1. Describe various forms that water takes on the earth's surface and conditions under which they exist.	EH 5
2. Describe how rainwater in Michigan reaches the oceans.	EH 6
3. Describe the origins of pollution in the hydrosphere.	EH 7
<b>Standard 3: All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere.</b>	
<b>Objectives</b>	<b>Lessons/Methodology</b>
1. Describe the composition and characteristics of the atmosphere.	EAW 5
2. Describe patterns of changing weather and how they are measured.	EAW 6
3. Explain the water cycle and its relation to weather patterns.	EAW 7
4. Describe the health effects of polluted air.	EAW 8

**Content Standard 4: The Solar System, Galaxy, and Universe. All students will compare and contrast our planet and sun to other planets and star systems; describe and explain how objects in the solar system move; explain scientific theories as to the origin of the solar system; and explain how we learn about the universe**

<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe the sun, moon, and earth	ES 1
2. Describe the motions of the earth and moon around the sun	ES 2
3. Compare the earth to the other planets in terms of supporting life.	ES 3
4. Describe, compare, and explain the motions of planets, moons, and comets in the solar system.	ES 4
5. Describe and explain the common observations of the day and night skies.	ES 5
6. Explain how the solar system is formed.	ES 6

## Science Objective Summaries and their Links:

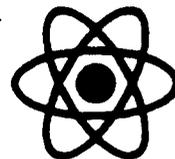
EAW	Earth Science	Atmosphere and Weather
EG	Earth Science	Geosphere
EH	Earth Science	Hydrosphere
ES	Earth Science	Space



LC	Life Science	Cells
LE	Life Science	Evolution
LEC	Life Science	Ecosystems
LH	Life Science	Heredity
LO	Life Science	Living Organisms



PCM	Physical Science	Changes in Matter
PME	Physical Science	Matter and Energy
PMO	Physical Science	Motion of Objects
PWV	Physical Science	Waves (Sound, Light, Pendulae)



# RECOMMENDED SCIENCE SCHEDULE

## GRADE SEVEN

**Aug**

Aug 27 LEC 6/7                      Population relationships

**SEP**

Sep 4    LEC 6 / LEC 7                      Ecosystems-Population relationships  
 Sep 10   LEC 7 / LEC 8                      Ecosystems-Energy  
 Sep 17   LEC 9 / LEC 10                      Ecosystems Succession and cycles; *First Report Due on LEC 11 and EAW 8*  
 Sep 24   EG 7                                  Contour Maps

**OCT**

Oct 1    EG 8                                  Rocks and Minerals  
 Oct 8    EG 9                                  Geologic Age  
 Oct 15   EG 10                                Surface changes  
 Oct 22   EH 5                                Water on Earth  
 Oct 29   EH 6                                Water Path

**NOV**

Nov 5    Science reading and Writing for Content  
 Nov 12   EH 6                                Water Path  
 Nov 19   Holiday                              Catch-up  
 Nov 26   EH 7                                Pollution; *Second report due on EG 11*

**DEC**

Dec 3    PME 13                                Energy  
 Dec 10   PME 14                                Energy  
 Dec 17    Science Reading and Writing for Content

**JAN**

Jan 3    PME 11                                Atoms and Molecules  
 Jan 7    PME 12 / PCM 4 / PCM 8                Physical Changes  
 Jan 14   PME 12 / PCM 4 / PCM 8                Physical Changes  
 Jan 21   PME 10 / PCM 5 / PCM 6                Chemical Changes; *Third Report Due on EH 7*  
 Jan 28   PME 15                                Electricity

**Feb**

Feb 4    PME 16                                Electromagnetism  
 Feb 11    Science Reading and Writing for Content; *Electromagnetism Project Due*  
 Feb 18   LH 2 LH 3                              Heredity  
 Feb 25   LC 2 LC 3                              Levels of Cellular Organization

**MAR**

Mar 4    LC 4    Energy in Cells  
 Mar 11   LO 9                                Overview of Body Systems  
 Mar 18   LO 6                                Classifying Organisms  
 Mar 25    *Fourth Report Due on Body Systems*

**APRIL**

April 8   LO 7 LO 8                              Plants  
 April 15   EAW 5                                Atmosphere  
 April 22   EAW 7 EH 5                              Water Cycle  
 April 29   EAW 6                                Weather

**MAY**

May 6	EAW 6	Weather
May 13	ES 5	Common Observations
May 20	ES 5	Common Observations
May 28	ES 4	Motions of Celestial Objects

**JUNE**

June 3	ES 3	Planetary Comparisons; <i>Fifth Report Due on ES 6</i>
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This schedule assumes that science is being taught 5 hours per week, an average of 1 week per objective. Six objectives will be met by making reports that will be researched and written independently. One objective will be met by a project built independently:

Reports:	LEC 11 and EAW 8 Together EG 11 LO 9 EH 7 ES 6
Projects:	PME 16
Process Skills	PME 8 (Integrated with curriculum) PME 9

It is recommended that a small test be given weekly (for each objective), a part of which is an explanatory essay with sketches, and another part that is typical multiple choice.

## **The Teaching of Origins National Heritage Academies**

National Heritage Academies recognizes that the teaching of origins is a topic that generates passionate debate because it touches deeply at the core of many people's strongly held beliefs. In no way does NHA seek to undermine the beliefs held by each family unit within our schools. Rather, we support the parents' rights to instruct their children on these topics.

At the same time, National Heritage Academies is required to teach according to state standards. NHA is committed to teaching the state's educational objectives in each state in which we are granted a charter. To that end, NHA has a system of objectives called NHAGOSE Standards (National Heritage Academies Goals of Science Education) that are based on Michigan state standards and have been expanded to include those of other states as well as the Core Knowledge Sequence. These NHAGOSE Standards have been approved state by state with our charters as meeting or exceeding state standards.

In teaching science at the elementary and middle school levels, NHA is committed to four teaching strategies. These are:

1. teaching basic facts;
2. teaching science skills (making graphs and tables, measuring, etc.);
3. teaching science models and their limitations;
4. teaching thinking skills to combine all the above into a coherent view of the universe.

The Core Knowledge Sequence focuses on points one and two above. Different state standards are blends of the four areas. Our NHAGOSE Standards have been written to implement these ideas in a way that covers all domains of science in age-appropriate ways.

### **Objective Standards**

The attached appendices are a complete description of the three objectives related to evolution. The summarized objectives are:

- LE 1 - Explain how fossils provide evidence about the nature of ancient life.
- LE 2 - Explain how physical and/or behavioral characteristics of organisms help them to survive in their environments.
- LE 3 - Describe how biologists might trace possible evolutionary relationships among present and past life forms.

**Note:** LE 1 and LE 2 are elementary objectives and LE 3 is a middle school objective.

### **Philosophies, Ideology and Religion**

It is required that all National Heritage Academies' schools teach science. The teaching of science necessitates teaching to objectives. In the process of teaching these objectives, we:

- teach basic facts;
- teach science skills (make graphs and tables, measurement...);
- teach science models and their limitations;
- teach thinking skills to combine all the above into a coherent view of the universe.

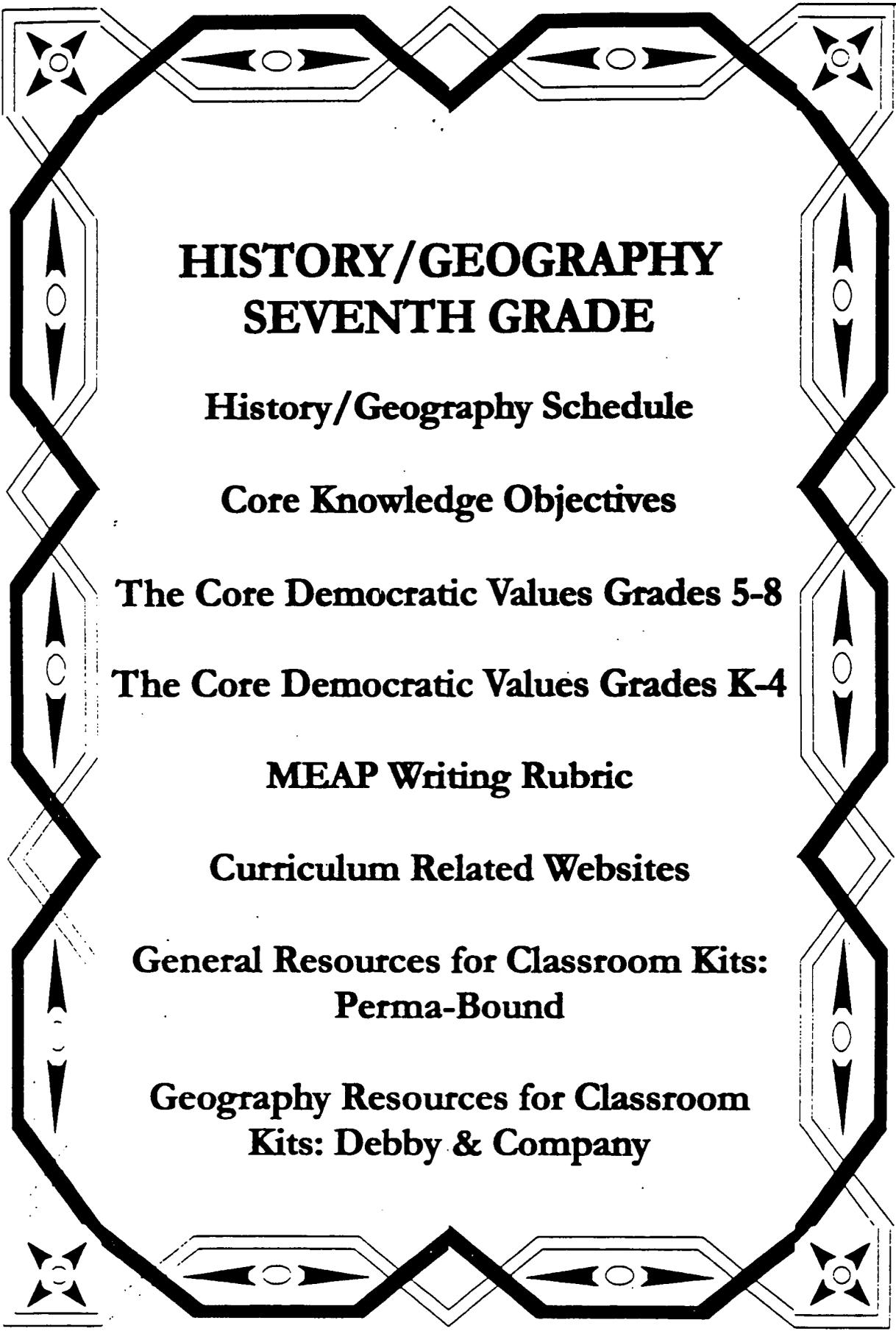
We do not teach any particular philosophy, ideology and/or religion that are not stated in our objectives.

We do not teach ideology or naturalistic religion. To the extent that evolution is concerned with fossils (and deductions from them), adaptations of plants and animals to environments, we teach these as testable, observable domains in which we legitimately practice scientific inquiry. In LE 3 we recognize evolution to be a working tool of the life sciences, which all students, regardless of their belief structures, should understand. Note that this objective does not insist that all biologists are evolutionists, mandate that evolutionary relationships are facts and laws like Newtonian Mechanics, or require that anyone believe the evolutionary relationships. The objective does require that we teach all students to understand how some biologists have reached certain conclusions.

Each of the listed objectives is tied in our curriculum to a related body of knowledge. LE 1 is tied to geology and is integrated with geology units. LE 2 is tied to the study of living organisms, their character and diversity. LE 3 is taught with units on cell biology and heredity. The result is that we are teaching science, of which these objectives are a part.

We do not teach creationism or scientific creationism. We do not have any labeled objectives for creationism. There are matters on which some scientific creationists will focus such as erosion (dealt with in EG 4, EG 10, EH 2 and EH 6) or density (PME 8). These topics are taught, but as issues of science, not as issues of creationism.

In all of our teaching, we are helping students both develop and critique models of the universe, recognizing that models have value in helping us to think, plan, and make conclusions. We also seek to help students recognize that models are simplifications of reality and are thus always subject to the limitations of our finite minds.



**HISTORY/GEOGRAPHY  
SEVENTH GRADE**

**History/Geography Schedule**

**Core Knowledge Objectives**

**The Core Democratic Values Grades 5-8**

**The Core Democratic Values Grades K-4**

**MEAP Writing Rubric**

**Curriculum Related Websites**

**General Resources for Classroom Kits:  
Perma-Bound**

**Geography Resources for Classroom  
Kits: Debby & Company**

**History/Geography - Recommended Schedule  
Grade 7**

<u>Month</u>	<u>Unit</u>
<u>August/September</u>	<b>Geography of the United States</b>
Week 1	
Week 2	
Week 3	<b>America Becomes a World Power</b>
Week 4	
<u>October</u>	
Week 5	<b>World War I: "The Great War," 1914-1918</b>
Week 6	(History, Geography of Western and Central Europe)
Week 7	
Week 8	
<u>November</u>	
Week 9	<b>The Russian Revolution</b> (History, Geography)
Week 10	
Week 11	
Week 12	
<u>December</u>	
Week 13	<b>America from the Twenties to the New Deal</b>
Week 14	(America in the Twenties)
Week 15	(The Great Depression)
<u>January</u>	
Week 16	
Week 17	(Roosevelt and the New Deal)
Week 18	
Week 19	
<u>February</u>	
Week 20	<b>World War II</b> (The Rise of Totalitarianism in Europe)
Week 21	
Week 22	
Week 23	(World War II in Europe and at Home, 1939-45)
<u>March</u>	
Week 24	
Week 25	
Week 26	(World War II in the Pacific and the End of the War)
Week 27	
<u>April</u>	
Week 28	<b>Spring Break</b>
Week 29	
Week 30	
Week 31	<b>Civics</b>
<u>May/June</u>	
Week 32	
Week 33	
Week 34	
Week 35	
Week 36	

## History and Geography: Grade 7

### I. America Becomes a World Power

- Expansion of the U.S. Navy, Captain Alfred T. Mahan
- U.S. annexation of Hawaii
- The Spanish-American War
  - Cuban War for Independence, José Martí
  - Teddy Roosevelt and the Rough Riders
  - Spain gives the U.S. Guam, Puerto Rico, and the Philippines
- Complications of imperialism: War with the Philippines, Anti-Imperialist League
- Building the Panama Canal: “Roosevelt Corollary” to the Monroe Doctrine, “Speak softly and carry a big stick”

### II. World War I: “The Great War,” 1914-1918

#### A. HISTORY

- National pride and greed as causes: European nationalism, militarism, and colonialism
  - The British Empire: Queen Victoria
  - German nationalism and militarism: Bismarck unifies Germany, war against France, France cedes Alsace-Lorraine to Germany
  - European imperialism and rivalries in Africa
    - Stanley and Livingstone
    - British invade Egypt to protect Suez Canal
    - French in North Africa
    - Berlin Conference and the “scramble for Africa”
- Entangling defense treaties: Allies vs. Central Powers, Archduke Ferdinand assassinated
- The Western Front and Eastern Front, Gallipoli, Lawrence of Arabia
- War of attrition and the scale of losses: Battle of the Marne (1914), new war technologies (for example, machine guns, tanks, airplanes, submarines), trench warfare
- U.S. neutrality ends: sinking of the Lusitania, “Make the world safe for democracy”
- Armistice Day, November 11, 1918, abdication of Kaiser Wilhelm II
- Treaty of Versailles
  - New central European states and national boundaries
  - German reparations and disarmament
- Woodrow Wilson’s 14 Points
  - League of Nations, concept of collective security

## B. GEOGRAPHY OF WESTERN AND CENTRAL EUROPE

- Physical features
  - Mountains: Alps, Apennines, Carpathians, Pyrenees
  - Danube and Rhine Rivers
  - Seas: Adriatic, Aegean, Baltic, Black, Mediterranean, North
- Population and natural resources, acid rain damage
- Languages, major religions
- Legacy of Roman Empire: city sites, transportation routes
- Industrial Revolution leads to urbanization (review from grade 6)
- Scandinavia: comprised of Denmark, Norway, Sweden, sometimes also includes Finland and Iceland
  - Cities: Copenhagen (Denmark), Oslo (Norway), Stockholm (Sweden), Helsinki (Finland)
- United Kingdom: comprised of Great Britain (England, Scotland, Wales) and Northern Ireland
  - Irish Sea, English Channel
  - North Sea, gas and oil
  - England: London, Thames River
  - Scotland: Glasgow, Edinburgh
  - Northern Ireland: Ulster and Belfast, Catholic-Protestant strife
  - Ireland: Dublin (review from grade 6: famine of 1840s, mass emigration)
- France
  - Alps, Mont Blanc
  - Seine and Rhone Rivers
  - Bay of Biscay, Strait of Dover
  - Corsica (island)
  - Major cities: Paris, Lyon, Marseilles
- Belgium, Netherlands (Holland), and Luxembourg
  - Cities: Brussels (Belgium), Amsterdam, Rotterdam, The Hague (Netherlands)
- Germany
  - Cities: Berlin, Bonn, Hamburg, Munich
  - Ruhr Valley: mining region, industrial cities including Essen
  - Largest population in Europe, highly urbanized
- Austria and Switzerland
  - Mostly mountainous (Alps)
  - Cities: Vienna (Austria), Bern, Geneva (Switzerland)
- Italy
  - Apennines
  - Sardinia and Sicily (islands)
  - Cities: Milan, Rome, Venice, Florence
  - Vatican City: independent state within Rome
- Iberian Peninsula: Spain and Portugal
  - Cities: Madrid (Spain), Lisbon (Portugal)

### III. The Russian Revolution

#### A. HISTORY

- Tensions in the Russian identity: Westernizers vs. traditionalists
- Revolution of 1905, "Bloody Sunday," Russo-Japanese War
- The last czar: Nicholas II and Alexandra
- Economic strains of World War I
- Revolutions of 1917
  - March Revolution ousts Czar
  - October Revolution: Bolsheviks, Lenin and revolutionary Marxism
- Civil War: Bolsheviks defeat Czarist counterrevolution, Bolsheviks become the Communist Party, creation of the Soviet Union

#### B. GEOGRAPHY

- Overview
  - Territorially the largest state in the world
  - All parts exposed to Arctic air masses
  - Little moisture reaches Russia, because of distance from Atlantic Ocean, and because Himalayas block movement of warm, moist air from south
  - Population concentrated west of Ural Mountains
  - Siberia: rich in resources
  - Mongolia: Russian-dominated buffer state with China
  - Few well-located ports
  - Rich oil and natural gas regions
- Physical features:
  - Volga and Don Rivers (connected by canal)
  - Caspian Sea, Aral Sea (being drained by irrigation projects)
  - Sea of Japan, Bering Strait
- Cities: Moscow, Petersburg (formerly Leningrad), Vladivostok, Volgograd (formerly Stalingrad)

#### IV. America from the Twenties to the New Deal

##### A. AMERICA IN THE TWENTIES

- Isolationism: restrictions on immigration, Red Scare, Sacco and Vanzetti, Ku Klux Klan
- The “Roaring Twenties”: flappers, prohibition and gangsterism, St. Valentine’s Day Massacre, Al Capone
- The Lost Generation: Ernest Hemingway, F. Scott Fitzgerald
- Scopes “Monkey Trial”
- Women’s right to vote: 19th Amendment
- “New Negro” movement, Harlem Renaissance
  - African American exodus from segregated South to northern cities
  - W.E.B. De Bois: *The Souls of Black Folk*, NAACP (review from grade 6)
  - Zora Neal Hurston, Countee Cullen, Langston Hughes
  - “The Jazz Age”: Duke Ellington, Louis Armstrong
  - Marcus Garvey, black separatist movement
- Technological advances
  - Henry Ford’s assembly line production, Model T
  - Residential electrification: mass ownership of radio, Will Rogers
  - Movies: from silent to sound, Charlie Chaplin
  - Pioneers of flight: Charles Lindbergh, Amelia Earhart
  - Decline of rural population

##### B. THE GREAT DEPRESSION

- Wall Street stock market Crash of 1929, “Black Tuesday”
- Hoover insists on European payment of war debts, Smoot-Hawley Tariff Act
- Mass unemployment
  - Agricultural prices collapse following European peace
  - Factory mechanization eliminates jobs
  - Bonus Army
  - “Hooverilles”
- The Dust Bowl, “Okie” migrations
- Radicals: Huey Long, American Communist Party, Sinclair Lewis

### C. ROOSEVELT AND THE NEW DEAL

- Franklin Delano Roosevelt: "The only thing we have to fear is fear itself."  
Eleanor Roosevelt
- The New Deal  
Growth of unions: John L. Lewis and the CIO (Congress of Industrial Organizations), A. Philip Randolph, Memorial Day Massacre  
New social welfare programs: Social Security  
New regulatory agencies: Securities and Exchange Commission, National Labor Relations Board  
Tennessee Valley Authority
- Roosevelt's use of executive power: "Imperial Presidency," "court packing"

## V. World War II

### A. THE RISE OF TOTALITARIANISM IN EUROPE

- Italy  
Mussolini establishes fascism  
Attack on Ethiopia
- Germany  
Weimar Republic, economic repercussions of WWI  
Adolf Hitler and the rise of Nazi totalitarianism: cult of the *Führer* ("leader"), *Mein Kampf*  
Nazism and the ideology of fascism, in contrast to communism and democracy  
Racial doctrines of the Nazis: anti-Semitism, the concept of *Lebensraum* (literally, "living space") for the "master race," *Kristallnacht*  
The Third Reich before the War: Gestapo, mass propaganda, book burning
- The Soviet Union  
Communist totalitarianism: Josef Stalin, "Socialism in one country"  
Collectivization of agriculture  
Five-year plans for industrialization  
The Great Purge
- Spanish Civil War  
Franco, International Brigade, Guernica

**B. WORLD WAR II IN EUROPE AND AT HOME, 1939-1945**

- Hitler defies Versailles Treaty: reoccupation of Rhineland, *Anschluss*, annexation of Austria
- Appeasement: Munich Agreement, “peace in our time”
- Soviet-Nazi Nonaggression Pact
- *Blitzkrieg*: invasion of Poland, fall of France, Dunkirk
- Battle of Britain: Winston Churchill, “nothing to offer but blood, toil, tears, and sweat”
- The Home Front in America
  - American Lend-Lease supplies, Atlantic Charter
  - America First movement
  - U.S. mobilization for war: desegregation of defense industries, “Rosie the Riveter,” rationing, war bonds
  - America races Germany to develop the atomic bomb: the Manhattan Project
- Hitler invades Soviet Union: battles of Leningrad and Stalingrad
- The Holocaust: “Final Solution,” concentration camps (Dachau, Auschwitz)
- North Africa Campaign: El Alamein
- D-Day: Allied invasion of Normandy, General Dwight Eisenhower
- Battle of the Bulge, bombing of Dresden
- Yalta Conference
- Surrender of Germany, Soviet Army takes Berlin

### C. WORLD WAR II IN THE PACIFIC, AND THE END OF THE WAR

- Historical background: Japan's rise to power
  - Geography of Japan (review all topics from grade 5)
    - Sea of Japan and Korea Strait
    - High population density, very limited farmland, heavy reliance on imported raw materials and food
  - End of Japanese isolation, Commodore Matthew Perry
  - Meiji Restoration: end of feudal Japan, industrialization and modernization
  - Japanese imperialism: occupation of Korea, invasion of Manchuria, Rape of Nanking
  - Japanese-Soviet neutrality treaty
- Pearl Harbor, December 7, 1941: "A day that will live in infamy."
- Internment of Japanese-Americans
- Fall of the Philippines: Bataan Death March, General Douglas MacArthur, "I shall return."
- Battle of Midway
- Island amphibious landings: Guadalcanal, Iwo Jima
- Surrender of Japan
  - Atom bombs dropped on Hiroshima and Nagasaki, the Enola Gay
  - U.S. dictates pacifist constitution for Japan, Emperor Hirohito
- Potsdam Conference, Nuremberg war crimes trials
- Creation of United Nations: Security Council, Universal Declaration of Human Rights

## VI. Geography of the United States

- Physical features
  - General forms: Gulf/Atlantic coastal plain, Appalachian highlands and Piedmont, Midwest lowlands, Great Plains, Rocky Mountains, Intermountain Basin and Range, Pacific coast ranges, Arctic coastal plain
  - Mountains: Rockies, Appalachians, Sierra Nevada, Cascades, Adirondacks, Ozarks
  - Peaks: McKinley, Rainier, Whitney
  - Main water features: Gulf of Mexico, Chesapeake Bay, San Francisco Bay, Puget Sound, Great Salt Lake, Great Lakes (freshwater)—Erie, Huron, Michigan, Ontario, Superior
  - Rivers: Mississippi, Missouri, Ohio, Colorado, Hudson, Columbia, Potomac, Rio Grande, Tennessee
  - Niagara Falls, Grand Canyon, Mojave Desert, Death Valley
- Political, economic, and social features
  - The fifty states and their capitals (review), Washington, D.C., Commonwealth of Puerto Rico, Virgin Islands, Guam
- Cities: Atlanta, Baltimore, Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Dallas, Denver, Detroit, Houston, Kansas City, Los Angeles, Memphis, Miami, Milwaukee, Minneapolis, New Orleans, Norfolk, Philadelphia, Phoenix, Pittsburgh, Portland, St. Louis, San Antonio, San Diego, San Francisco, Seattle, Tampa
- Population
  - Expansion of settlement
  - Population density
- Regions
  - New England
  - Mid-Atlantic
  - South: "Dixie," Mason-Dixon Line, Bible Belt
  - Middle West: Rust Belt, Corn Belt
  - Southwest: Sun Belt
  - Mountain States
  - West Coast: San Andreas fault, California aqueduct (water supply) system
  - Coal, oil, and natural gas deposits
  - Agricultural crop regions
- New York City
  - Bronx, Brooklyn, Manhattan, Queens, Staten Island
  - Broadway, Fifth Avenue, Madison Avenue, Park Avenue, Times Square, Wall Street, Central Park, Harlem, Greenwich Village



## The Core Democratic Values (Grades 5-8)

Core democratic values are the fundamental beliefs and constitutional principles of American society which unite all Americans. These values are expressed in the Declaration of Independence, the United States Constitution and other significant documents, speeches, and writings of the nation. Below are brief definitions of some core democratic values.

**Common good:** People should work together for the good of all. The government should make laws that are good for everyone.

**Justice:** All people should be treated fairly in getting the advantages and disadvantages of our country. No group or person should be favored.

**Liberty:** Liberty includes the freedom to believe what you want, freedom to choose your own friends, and to have your own ideas and opinions, to express your ideas in public, the right for people to meet in groups, and the right to have any lawful job or business.

**Popular sovereignty:** The power of the government comes from the people.

**Life:** Each person has the right to the protection of their life.

**Equality:** Everyone should get the same treatment regardless of where your parents or grandparents were born, your race or religion, or how much money you have. All people have political, social and economic equality.

**Diversity:** Differences in language, dress, food, where parents or grandparents were born, race, and religion are not only allowed but accepted as important.

**Pursuit of happiness:** Each person can find happiness in their own way, so long as they do not step on the rights of others.

**Truth:** The government and citizens should not lie.

**Patriotism:** A devotion to our country and the core democratic values in word and deed.

**Rule of law:** Both the government and the people must obey the law.

**ALL STATES**



# The Core Democratic Values (Kindergarten – Grade 4)

The core democratic values are the ideas in which Americans believe. We do not look the same. We like different things. We each think differently. There are some ways that we are the same. We believe in telling the truth. We believe in treating people fairly. To be good citizens we must practice these values each day at home and school.

## Our Core Democratic Values: Elementary Definitions

Teaching our core democratic values in kindergarten through grade 4 can be fun for students and easily integrated into your daily interactions with students. These simpler definitions are appropriate for younger students, *but please check your understanding of them by reading the definitions used in grades 5 through 8 (see next page)*. Your complete understanding will assure that your teaching will assist the teachers in the upper grades and eliminate misunderstandings by your students.

**Common good: Help others at home and school**

**Justice: Take turns and be fair to others**

**Liberty: Follow your beliefs and let others follow theirs**

**Popular sovereignty: Majority rules**

**Life: Rules keep you safe, follow them**

**Equality: Give everyone an equal chance**

**Diversity: Work and play with everyone**

**Pursuit of happiness: Have fun but follow the rules at home and school**

**Truth: Tell the truth**

**Patriotism: Use the core democratic values and home and school**

**Rule of law: Rules are made for everyone to follow**

**ALL STATES**

## MEAP WRITING RUBRIC

### Holistic Feature Scoring of Civic Writing: Grades 5 and 8

(Future Reference for MEAP Assessment—Students should understand and begin to practice writing using these rubric guidelines at the fourth grade level. This detailed list was developed by social studies range-finding committees to provide directions for those who will be scoring extended MEAP responses. History and Geography teachers should model this rubric with their writing lessons.)

Points	Description
4	<p>In order to receive a 4-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated position</b> on the issue and support for that position               <ul style="list-style-type: none"> <li>- Students should use words such as support/oppose, for/against, agree/disagree, or should/should not</li> <li>- Do not accept those who do not take a stand, who say someone else (parents, school, or government) should decide the issue</li> </ul> </li> <li>• Provide at least one supporting point that is based on the <b>Core Democratic Values</b> of American constitutional democracy               <ul style="list-style-type: none"> <li>- Do not accept if this support contradicts state position</li> </ul> </li> <li>• Provide at least one piece of accurate, important, and relevant <b>supporting social studies information</b> that comes from the student's prior knowledge of civics, economics, geography, or history (Information other than that supplied by the Data Section or a Core Democratic Value)               <ul style="list-style-type: none"> <li>- Do not accept feelings or opinions for this element</li> <li>- Do not accept if this support contradicts stated position</li> </ul> </li> <li>• Provide at least one piece of accurate, valid, and relevant <b>supporting information from the Data Section</b> <ul style="list-style-type: none"> <li>- Do not accept if this support contradicts stated position</li> <li>- Data interpretations must be more right than wrong</li> </ul> </li> </ul>
3	<p>In order to receive a 3-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated and supported position</b> on the issue</li> <li>• Provide at least one supporting point that is based on <b>Core Democratic Values</b></li> <li>• Contain at least one of the remaining two elements</li> </ul>
2	<p>In order to receive a 2-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly state and supported position</b> on the issue</li> <li>• Contain at least one of the three remaining elements</li> </ul>
1	<p>In order to receive a 1-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated and supported position</b> on the issue</li> </ul>
0	<p>In order to receive a 0-point score, the response will show no evidence of any of the elements</p>

Note: The supporting points used by students must be explained in enough detail to show a clear connection to the position taken (Yes, I support, No, I do not support).

## **CURRICULUM RELATED WEBSITES**

**Michigan Department of Education**

<http://www.mde.state.mi.us/>

### **MEAP Released Items**

[http://www.meritaward.state.mi.us/  
merit/meap/questions/index.htm](http://www.meritaward.state.mi.us/merit/meap/questions/index.htm)

### **Michigan Curriculum Framework**

<http://cdp.mde.state.mi.us>

### **Social Studies Assessment Models**

**(in Acrobat 3.0)**

<http://cdp.mde.state.mi.us/Assessment/model5.pdf>

<http://cdp.mde.state.mi.us/Assessment/model8.pdf>

<http://cdp.mde.state.mi.us/Assessment/model11.pdf>

### **Authentic Assessment of Social Studies**

[http://cdp.mde.state.mi.us/SocialStudies/MI\\_Auth.AssmtMan.pdf](http://cdp.mde.state.mi.us/SocialStudies/MI_Auth.AssmtMan.pdf)

**Bruce** = [bbrousseau@ed.mde.state.mi.us](mailto:bbrousseau@ed.mde.state.mi.us)

**Karen** = [ktodorov@cdp.mde.state.mi.us](mailto:ktodorov@cdp.mde.state.mi.us)

## GENERAL RESOURCES FOR CLASSROOM KITS

## Perma-Bound Books

\*Denotes suitability for ordering for students in classroom sets... at student readability levels

## GRADE 7

## HISTORY &amp; GEOGRAPHY: World War I: "The Great War" 1914-1918

7	20244	At Her Majesty's Request: An African Princess In Victorian England	\$19.90
7	41365	Building The Panama Canal	\$17.90
7	41750	Bully For You, Teddy Roosevelt!	\$11.64
7	92991	Exploration Of Africa	\$11.60
7	103046	First World War	\$20.60
7	152377	In Flanders Field: The Story Of The Poem By John McCrae	\$14.60
7	227579	Over There!: The American Soldier In World War I	\$17.90
7	247044	Queen Victoria	\$25.95
7	279651	Spanish-American War (Original Publisher's Binding)	\$19.50
7	279649	Spanish-American War	\$11.60
7	282395	Stanley And Livingstone And The Exploration Of Africa In World History	\$23.90
7	313856	USA, 1917-1941	\$18.60
7	323034	Western Front: Ordinary Soldiers And The Defining Battles of World War I	\$29.95
7	333322	Wolof	\$19.90
7	334499	Woodrow Wilson	\$22.90
7	334500	Woodrow Wilson, Franklin D. Roosevelt, Harry S. Truman	\$19.93
7	335611	World War I	\$32.49
7	335613	World War I	\$12.60
7	335614	World War I	\$27.85
7	335612	World War I (Opposing Viewpoints)	\$21.85
7	335617	World War I: The War To End Wars	\$23.90

## HISTORY &amp; GEOGRAPHY: Geography of Western and Central Europe

7	20492	Austria (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	20495	Austria (Original Publisher's Binding)	\$33.00
7	27105	Belgium (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	27104	Belgium (Major World Nations)	\$17.90
7	27103	Belgium (Original Publisher's Binding)	\$32.00
7	27729	Berlin (Original Publisher's Binding)	\$26.00
7	73551	Denmark (Major World Nations)	\$17.90
7	83600	Dublin (Original Publisher's Binding)	\$26.00
7	85770	Edad Industrial (Industrial Age) (Original Hardcover Binding)	\$34.95
7	89664	England (Major World Nations)	\$17.90
7	89663	England (Original Publisher's Binding)	\$32.00
7	91803	Europe (Original Publisher's Binding)	\$22.00
7	100678	Finland (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	100823	Finland (Major World Nations)	\$17.90
7	100681	Finland (Original Publisher's Binding)	\$32.00
7	129139	France	\$22.55
7	129145	France (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	129142	France (Major World Nations)	\$17.90
7	129148	France (Original Publisher's Binding)	\$21.50
7	129147	France (Original Publisher's Binding)	\$32.00
7	115200	Germany	\$25.22
7	115203	Germany	\$29.21
7	115198	Germany (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	150605	Iceland (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	150607	Iceland (Original Publisher's Binding)	\$15.93
7	156098	Industrial Britain: The Workshop Of The World	\$19.60
7	156095	Industrial Revolution (Opposing Viewpoints)	\$21.85
7	157805	Ireland	\$30.55

## HISTORY &amp; GEOGRAPHY: Geography of Western and Central Europe, continued

7	157808	Ireland	\$22.55
7	157811	Ireland (Cultures Of The World)(Original Publisher's Binding)	\$35.64
7	157809	Ireland (Major World Nations)	\$17.90
7	159321	Italy (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	159318	Italy (Original Publisher's Binding)	\$33.00
7	217935	Northern Ireland (Major World Nations)	\$17.90
7	218010	Norway (Major World Nations)	\$16.90
7	256020	Romans In Britain	\$14.60
7	257113	Rome (Original Publisher's Binding)	\$26.50
7	261680	Scotland	\$25.22
7	278958	Southern Italy	\$20.60
7	290785	Sweden	\$22.55
7	290784	Sweden (Major World Nations)	\$17.90
7	290787	Sweden (Original Publisher's Binding)	\$32.00
7	315195	Venecia (Venice) (Original Publisher's Binding)	\$25.95
7	315860	Vienna (Original Publisher's Binding)	\$26.00

## HISTORY &amp; GEOGRAPHY: The Russian Revolution - History

7	13190	Anastasia's Album	\$21.90
7	202330	Moscow	\$20.60
7	202331	Moscow (Original Publisher's Binding)	\$26.00
7	258591	Russia	\$22.55
7	258600	Russia	\$19.90
7	258587	Russia (Cultures Of The World) (Original Publisher's Binding)	\$35.64
7	258615	Russia's Revolutions	\$19.60
7	258585	Russia: Revolution And Counter-Revolution, 1917-1924	\$24.60
7	258588	Russian People In 1914	\$17.90
7	323575	What Life Was Like In The Time Of War And Peace: Imperial Russia, AD 1696-1917	\$33.90

## HISTORY &amp; GEOGRAPHY: The Russian Revolution - Geography

7	200385	Mongolia	\$23.88
7	258602	Russia	\$29.21
7	258581	Russia: The Land	\$13.60
7	282125	St. Petersburg (Original Publisher's Binding)	\$26.00
7	322588	Welcome To Russia	\$26.55

## HISTORY &amp; GEOGRAPHY: America in the Twenties

7	90446	Ernest Hemingway: Writer & Adventurer	\$22.90
7	92295	Evolution On Trial	\$11.60
7	99898	Fight For Women's Right To Vote In American History	\$22.90
7	114863	Geography Of Hope: Black Exodus From The South After Reconstruction	\$33.85
7	123965	Great Migration: An American Story	\$14.60
7	131301	Harlem Renaissance: Hub Of African-American Culture, 1920-1930	\$22.65
7	161712	Jazz Age: The 20s	\$33.90
7	215632	Nineteenth Amendment	\$24.90
7	254760	Rising Twenties (Original Publisher's Binding)	\$20.50
7	266145	Sensational Trials Of The 20th Century	\$20.90
7	319581	Warren G. Harding (Original Publisher's Binding)	\$18.60

## HISTORY &amp; GEOGRAPHY: The Great Depression

7	308115 20s & 30s: Flappers & Vamps	\$25.22
7	32915 Black Tuesday: The Stock Market Crash Of 1929	\$25.85
7	51952 Children Of The Dust Bowl: The True Story Of The School At Weedpatch Camp	\$15.60
7	123300 Great Depression (Original Publisher's Binding)	\$20.00
7	123302 Great Depression In American History	\$24.90
7	131108 Hard Times: The 30s	\$23.90
7	134789 Herbert Hoover	\$23.90
7	146768 Huey Long: The Kingfish Of Louisiana	\$23.90
7	277077 Something Permanent	\$21.95
7	284493 Stock Market Crash Of 1929	\$17.90

## HISTORY &amp; GEOGRAPHY: Roosevelt and the New Deal

7	33509 Blaze Engulfs: January 1939 To December 1941	\$22.90
7	152161 Eleanor Roosevelt	\$26.40
7	87696 Eleanor Roosevelt: A Life Of Discovery	\$16.60
7	109581 Franklin D. Roosevelt: The Four-Term President	\$23.90
7	109586 Franklin D. Roosevelt	\$23.90
7	109590 Franklin Delano Roosevelt	\$14.60
7	123300 Great Depression (Original Publisher's Binding)	\$20.00
7	123302 Great Depression In American History	\$24.90
7	123965 Great Migration: An American Story	\$14.60
7	131108 Hard Times: The 30s	\$23.90
7	174635 Leaders Of World War II (Original Publisher's Binding)	\$19.93
7	212478 New Freedom To The New Deal: 1913-1939	\$12.60

## HISTORY &amp; GEOGRAPHY: World War II

7	8380 Along The Tracks	\$12.60
7	10344 American Dreams	\$11.60
7	10590 American Generals Of WWII	\$24.90
7	15605 Anne Frank: Life In Hiding	\$9.64
7	33509 Blaze Engulfed: January 1939 To December 1941	\$22.90
7	35409 Bombing Of Pearl Harbor In American History	\$24.90
7	40405 Britain And The Two World Wars	\$23.60
7	54460 Citizen Soldiers: The U.S. Army From The Normandy Beaches To The Bulge To The Surrender Of Germany	\$21.65
7	60309 Concise Biography Of Adolf Hitler	\$13.64
7	79778 Doing Our Part: American Women On The Home Front	\$24.95
7	81333 Double V Campaign: African Americans And World War II	\$20.94
7	81380 Douglas MacArthur: American Hero	\$12.60
7	97351 Farewell To Manzanar	\$11.49
7	108615 Four Perfect Pebbles: A Holocaust Story	\$10.60
7	114462 Generals Of World War II (Original Publisher's Binding)	\$19.93
7	115205 Germany, 1918-1945	\$18.60
7	137301 Hiroshima	\$11.49
7	137939 Hitler And Germany	\$23.60
7	138688 Holocaust Overview	\$24.90
7	138678 Holocaust, Hitler, And Nazi Germany	\$23.90
7	138684 Holocaust: Understanding And Remembering	\$24.90
7	164678 Journal Of Scott Pendleton Collins: A World War II Soldier, Normandy, France, 1944	\$14.90
7	165273 Journey To Topaz	\$15.60
7	174635 Leaders Of World War II (Original Publisher's Binding)	\$19.93
7	189809 Manhattan Project (Original Publisher's Binding)	\$19.50
7	194367 Mein Kampf	\$23.65
7	212058 Never To Forget: The Jews Of The Holocaust	\$12.60
7	218728 Number The Stars	\$11.15
7	231215 Pearl Harbor	\$17.90
7	253986 Rise Of The Nazis	\$31.07
7	268413 Shadow Of The Dictators: A.D. 1925-1950	\$23.90
7	272290 Sink the Bismarck: Germany's Super-Battleships Of World War II	\$27.85
7	275345 Smoke To Flame: September 1935 To December 1938	\$22.90
7	280275 Special Fate: Chiune Sugihara, Hero Of The Holocaust	\$19.90
7	312343 United States Holocaust Memorial Museum (Original Publisher's Binding)	\$20.00
HISTORY & GEOGRAPHY: World War II, continued		
-	319235 War In The Pacific: From Pearl Harbor To Okinawa, 1941-1945	\$17.90
-	319458 War, Peace, And All That Jazz (2nd Edition)	\$19.60
-	335630 World War II	\$12.60
-	335627 World War II	\$29.64
-	335628 World War II	\$23.90
-	335625 World War II In The Pacific: Remember Pearl Harbor	\$23.90

## HISTORY &amp; GEOGRAPHY: Geography of the United States

7	6724 Alabama (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	6856 Alaska (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.00
7	17525 Arizona (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	17538 Arkansas (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	43346 California (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.00
7	57069 Colorado (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	60607 Connecticut (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	72427 Delaware (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	105688 Florida (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	115059 Georgia (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	132399 Hawaii (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	150770 Idaho (From Sea To Shining Sea) (Original Publisher's Binding)	\$24.50
7	151754 Illinois (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	155707 Indiana (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	157706 Iowa (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	168422 Kansas (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	169395 Kentucky (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	183387 Louisiana (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	187104 Maine (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	192274 Maryland (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	192440 Massachusetts (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	196208 Michigan (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	197811 Minnesota (From Sea To Shining Sea) (Original Publisher's Binding)	\$25.00
7	198531 Mississippi (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	198625 Missouri (From Sea To Shining Sea) (Original Publisher's Binding)	\$25.00
7	201082 Montana (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	211676 Nebraska (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	211970 Nevada (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	212835 New Hampshire (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	212941 New Jersey (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	212958 New Mexico (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	213724 New York (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	217700 North Carolina (From Sea To Shining Sea) (Original Publisher's Binding)	\$24.00
7	217719 North Dakota (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	220497 Ohio (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	220645 Oklahoma (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	224963 Oregon (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	231557 Pennsylvania (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	245566 Puerto Rico (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	252370 Rhode Island (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	256360 Rocky Mountain States	\$25.60
7	277932 South Carolina (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	278962 South Dakota (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	2943 Tennessee (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	295959 Texas (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	313913 Utah (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	315242 Vermont (From Sea To Shining Sea) (Original Publisher's Binding)	\$27.00
7	316212 Virginia (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	319852 Washington (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.00
7	319855 Washington, D.C. (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.00
7	323006 West Virginia (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	331882 Wisconsin (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50
7	336634 Wyoming (From Sea To Shining Sea) (Original Publisher's Binding)	\$26.50

**HISTORY & GEOGRAPHY: Cities of the United States**

7	21861 America's Top 10 Cities	\$20.90
7	283778 State Capitals (Original Publisher's Binding)	\$25.93

**HISTORY & GEOGRAPHY: Landforms of the United States**

7	21864 America's Top 10 Mountains	\$20.90
7	105675 Flood: Wrestling With The Mississippi	\$22.71
7	198596 Mississippi Delta (Original Publisher's Binding)	\$17.93
7	198526 Mississippi Flood Of 1993 (Original Publisher's Binding)	\$20.00
7	198600 Mississippi River: A Journey Down The Father Of Waters	\$21.90
7	295952 Texas And The Arkansas River Valley	\$25.60

**HISTORY & GEOGRAPHY: Regions of the United States**

7	46373 Carolinas And The Appalachian States	\$25.60
7	71724 Deep South	\$25.60
7	85271 Eastern Great Lakes: Indiana, Michigan, Ohio	\$19.60
7	196273 Mid-Atlantic States	\$25.60
7	217940 Northern New England	\$25.60
7	228185 Pacific States	\$25.60
7	235790 Plains States	\$25.60
7	256360 Rocky Mountain States	\$25.60
7	278967 Southern New England	\$25.60
7	316214 Virginia And The Capital Region	\$25.60

**HISTORY & GEOGRAPHY: General Resources**

7	104427 Flags (Original Publisher's Binding)	\$23.93
7	283793 State Names, Seals, Flags, And Symbols (Original Publisher's Binding)	\$49.95

**GENERAL RESOURCES: WORLD HISTORY & GEOGRAPHY**

GR	272985 16th Century Mosque	\$22.90
GR	13223 Ancient China (Original Publisher's Binding)	\$19.99
GR	13235 Ancient Egypt (Original Hardcover Binding)	\$19.99
GR	13254 Ancient Greece (Original Hardcover Binding)	\$19.99
GR	13462 Ancient Rome (Original Hardcover Binding)	\$19.99
GR	20940 Aztecs (Original Publisher's Binding)	\$19.99
GR	51987 *Children's Atlas Of Civilizations	\$20.60
GR	87025 Egyptian Pyramid	\$16.60
GR	111319 Frontier Fort On The Oregon Trail	\$16.60
GR	114860 *Geography: From A To Z: A Picture Glossary	\$12.60
GR	126935 Greek Temple	\$22.90
GR	153663 Incas (Original Publisher's Binding)	\$16.99
GR	171644 Kingfisher Book Of The Ancient World	\$19.90
GR	190553 Maps And Globes	\$12.60
GR	193890 Medieval Castle	\$16.60
GR	193900 Medieval Knights (Original Publisher's Binding)	\$17.99
GR	195285 Middle Ages (Original Hardcover Binding)	\$19.99
GR	213280 New Puttin Children's World Atlas: An Introductory Atlas For Young People	\$12.64
GR	251555 Renaissance (Original Publisher's Binding)	\$19.99
GR	254966 Roman Fort	\$22.90
GR	265338 Shakespeare's Theater	\$22.90
GR	289266 Submarines & Ships (Original Publisher's Binding)	\$17.99
GR	310698 *Visual Dictionary Of The Earth	\$22.90
GR	334440 Wonders Of The World	\$13.60
GR	335000 World War Two Submarine	\$22.90
GR	337740 Young People's Atlas Of The United States	\$25.90

**GENERAL RESOURCES: AMERICAN HISTORY & GEOGRAPHY**

GR 12092	American Reader: Words That Moved A Nation	\$25.65
GR 40916	Buck Stops Here: The Presidents Of The United States	\$15.65
GR 050816	Cherokees: A First Americans Book	\$20.90
GR 050869	Cheyennes: A First Americans Book	\$19.90
GR 57029	Colony Of Fear	\$14.15
GR 71200	Debt	\$14.15
GR 89522	*Encyclopedia Of Native America	\$28.95
GR 107462	Fortune In Men's Eyes	\$14.15
GR 111279	From Sea To Shining Sea	\$33.90
GR 130356	Hand In Hand: An American History Through Poetry	\$23.95
GR 139335	Hopis: A First Americans Book	\$20.90
GR 157907	Iroquois: A First Americans Book	\$20.90
GR 192852	Matter Of Pride	\$14.60
GR 210852	Navajos	\$20.90
GR 272368	Sioux	\$20.90
GR 281069	Splendid Little War	\$13.60
GR 295635	Test Of Loyalty	\$13.60
GR 309205	Two Kinds Of Patriots	\$14.15

## GEOGRAPHY RESOURCES FOR CLASSROOM KITS

Debby & Company

**GRADE SEVEN (All supplies, except (#), should be ordered for each classroom at this grade level.**

**(#) Denotes a resource which may be shared by all teachers at this grade level.)**

**(\* Denotes suitability for ordering for students in classroom sets...at student readability levels.)**

Order #	Description	Price
IF8554	(#) Blank Map Outlines	\$9.99
CD-3092	World Map - Labeled (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3093	World Map - Blank (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3090	U.S. Map - Labeled (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3091	U.S. Map - Blank (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
T-1088	World Map (Wipe-Off Map)	\$2.99
T-1087	United States Map (Wipe-Off Map)	\$2.99
T-593	Regular Wipe-Off Crayons (8 colors)	\$1.79
FS-37033	The Continents Charts	\$7.95
McP111	Map and Globe Skills Teaching Posters	\$7.95
UM-FR227	*World Atlas	\$3.95
BH-95224	Reading Maps & Graphs (Geography Flip-Overs)	\$6.75
BH-95223	World Geography (Geography Flip-Overs)	\$6.75
Scpb 341723	(#) Everything You Need to Know About Geography Homework	\$8.95
FS10622	(#) Geography For Everyday	\$9.95
IF8751	(#) U.S. & World Map Skills	\$10.99
IF8201	Comprehensive World Reference Guide	\$22.99
IF87031	(#) Symbols of a Great Nation	\$10.99

# **SPECIAL EDUCATION**

**The Policy**  
**The Individual Education Plan (IEP)**  
**Role of the Special Education**  
**Building Coordinator**  
**The Child Study Team**  
**Evaluations**  
**Inclusion of Students with Disabilities**  
**Parent Participation**  
**Individuals with Disabilities Education**  
**Act (IDEA)**



## Special Education

### The Policy

It is the policy of the National Heritage Academies to provide special education services within each academy. All students with special needs have the right to a quality education appropriate to their needs, abilities and interest. It is the goal of the special education staff to act as a resource to the classroom teacher in the development and implementation of appropriate instructional and socialization strategies. Implementation of these strategies will occur within the general education setting and through one-on-one and small-group remediation.

### The Individual Education Plan (IEP)

All National Heritage Academies campuses comply with all federal and state legal requirements that every student identified as having a disability be provided an Individual Educational Program (IEP) specifying goals, level of service, ancillary services and the least restrictive placement. Prior to the opening of school, registration forms are scanned to identify current IEPs from previous schools attended. The parents are fully informed of their rights, procedures and responsibilities under special education law.

### Role of the Special Education Building Coordinator

- Form a partnership with the classroom teacher to develop appropriate instructional practices to meet student needs
- Act as a resource to the classroom teacher in the development, implementation and monitoring of specialized or modified programs
- Provide direct instruction to individuals or groups of students in the classroom as well as in the Resource Room setting
- Administer formal and informal educational assessments
- Interpret the results of assessments, observations and consultations to develop appropriate programming strategies
- Facilitate effective communication with students, parents, teachers, administration, special education support staff and community based agencies
- Share up-to-date professional information regarding special education
- Receive referrals directed to the Child Study Team
- Coordinate and lead Child Study Team meetings

### Special Education Personnel

All special education teachers have the proper certification. Our ancillary staff consists of speech and language pathologists, social workers, psychologists, and occupational therapists.

### **The Child Study Team**

The Child Study Team (CST) is a committee of school personnel set up by the principal to ensure ongoing and effective support for classroom teachers and students. The special education teacher co-chairs the school's team in cooperation with the building administrator. The team provides a forum to discuss students' academic and behavior needs and to generate, initiate and monitor solutions that marshal the resources of the school, the family and the community. This process creates an awareness and understanding of the issues affecting the student. The team acts as a pre-referral intervention-planning group for those "unidentified" students whose difficulties may suggest the presence of a disability. As appropriate, the team may refer a student for a formal assessment for special education. Parents should be informed if their child is being considered by the Child Study Team, and parental permission must be obtained prior to any formal assessment of that student.

### **Evaluations**

Special education students are subject to an annual review and a three-year reevaluation. At their annual reviews and three-year reevaluations, parents and teachers go over the protocols appropriate to the given student, and make clear decisions as to the programming for this student. Parents are informed of student progress a minimum of four times per year at quarterly marking periods. Progress is also shared through telephone calls, written information/feedback, and personal contacts.

### **Inclusion of Students with Disabilities**

National Heritage Academies is committed to the fullest level of inclusion deemed possible and appropriate by our professional team of general and special educators, administrators, and ancillary-support staff. Our goal is to educate each student in the least restrictive environment possible based on a student's individual needs.

### **Parent Participation**

Parents/legal guardians have the *expressed right* to participate in all meetings dealing with the evaluation, identification, and educational placement of their child. Information concerning a child will be requested of his/her parents/guardians during the child study process and the parent's/guardian's presence will be requested for all subsequent meetings. Parents/legal guardians are considered members of both the Multi-Disciplinary Evaluation Team (MET) and the Individual Education Programming Team (IEPT).

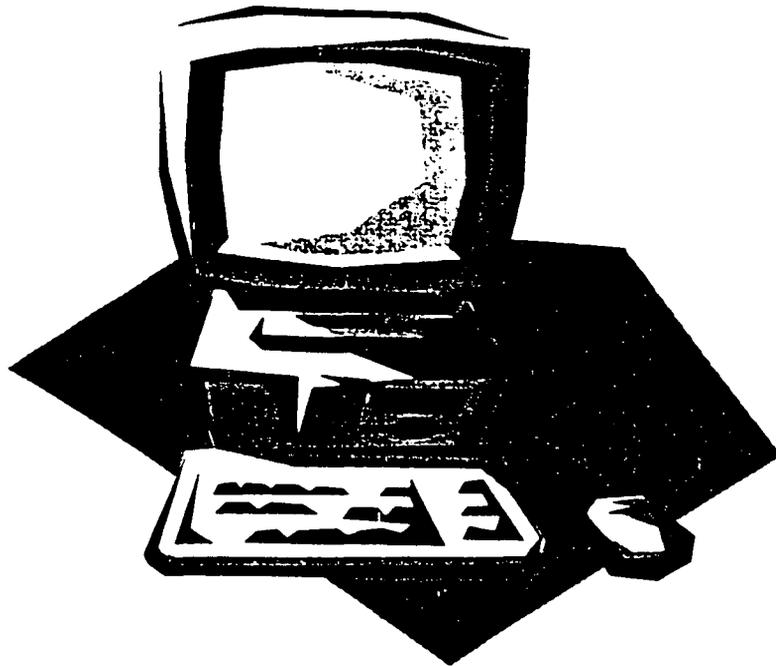
### **Individuals with Disabilities Education Act (IDEA)**

National Heritage Academies are in step with the major changes in special education. The six principles of the new laws are:

- Free appropriate public education
- Appropriate evaluation
- Individualized education program (IEP)
- Least restrictive environment (LRE)
- Parent and student participation in decision making
- Procedural safeguards

**TECHNOLOGY  
SEVENTH GRADE**

**Technology—Educational Philosophy  
Content Standards Grade 7  
Scope and Sequence of  
Content Standards Grades 3-8**



## **Educational Technology Philosophy**

The National Assessment of Educational Progress (NAEP) has tracked student achievement for nearly three decades. In 1996, the results of the NAEP indicated a link between certain kinds of technology use, higher scores on the NAEP, and an improved school climate.<sup>1</sup> It is important to note that not all types of technology use produced these results. In fact, the results indicated that the use of computers for "drill and practice" may result in decreased student scores. The technology use that proved most beneficial centered on using the computer for simulation, problem solving and analysis. "The computer's most powerful uses are for making things visual," says James Kaput, a math professor at the University of Massachusetts-Dartmouth. "It can make visual abstract processes that that are otherwise ineffable."

As an organization, NHA focuses on delivering a "back to basics" approach to education based on research to generate student performance results. NHA's philosophy is grounded in the premise that the primary educational focus in elementary school should be mastering the core academic subjects of English, reading, mathematics, history, and science. Use of technology within the framework of the core academic curriculum must be age appropriate and must enhance the learning process. Just as writing relies on penmanship as a requisite skill, students and teachers must develop requisite skills in the use of technology in order to maximize its curricular impact. Students will develop these skills in the context of using technology for academic pursuits. Teachers will develop technology skills through training, practice, and ongoing assessment.

## **Developing Technology Skills**

NHA's core academic curriculum is extremely rigorous and focuses on developing the fundamental skills, attitudes, and background knowledge that will allow students to be successful in all future pursuits. Specific technology skills are most effectively learned in the context of the core curriculum. Just as science teachers have taught their students to use a microscope in order to view cells, basic technology skills, such as using a scanner, are best taught in the context of developing a Web page or creating a portfolio. However, NHA will develop a specific technology curriculum to ensure the acquisition of computer skills.

NHA's approach to the curriculum is built upon the premise that a child's long-term academic success is directly related to the strength of the foundation upon which it is built. This belief provides a central core for the entire NHA curriculum. With this in mind, the school calendar and schedule focuses primarily on the development of this foundation in the core academic subjects. Once this foundation is laid, the learner benefits in all curricular areas.

In alignment with this core belief, NHA approaches the formal computer training very deliberately. While computers can be used in grades K-2 to enhance the delivery/experience of the student in the academic areas, no formal computer training is addressed during these formative years. A student's time in school is so valuable that computer training at these early ages would supersede a more fundamental element of the child's education. Students in grades K-2 may acquire technology skills as a by-product of the technology use within the curriculum. Formalized computer training will begin to be addressed by the classroom teacher beginning in grade 3. During the upper elementary years (grades 3-5), time is carved out of the school day to help students develop specific skills as they align with state and national standards. In most NHA affiliated schools, a computer elective course is offered in grades 6-8. During this set of courses, more advanced computer skills are taught and students are asked to apply these skills in increasingly unique and meaningful ways. Teachers in grades 6-8 will continue to include the development of computer skills into the classroom and students will be expected to apply these skills appropriately to enhance their learning.

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<sup>1</sup> "The Link to Higher Scores", Andrew Trotter, Education Week, October 1, 1998.

This technology curriculum is based on both state and national standards. Specific lessons and assessments related to computer skill acquisition will be developed through a cooperative effort between the NHA Educational Technology team and the NHA Curriculum team.

### **Integrating Technology with the Curriculum**

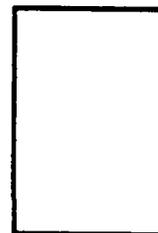
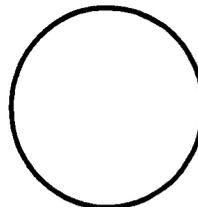
Although the time dedicated to acquire computer-specific skills is not equally distributed throughout the various grade levels, the underlying philosophy regarding technology use to enhance instruction is constant. In addition to developing materials that address both content standards and technology competencies, NHA is committed to the electronic delivery of content and supporting materials that aide in the delivery of curricula.

To achieve this goal of integration, NHA will develop a comprehensive curriculum map that includes specific teacher and student resources that tie technology with the core content areas in meaningful and substantive ways. A library of technology projects will be developed that connect specific curriculum objectives with technology skills. As a result, each teacher will be able to develop the tools necessary to integrate the acquisition of these skills into the academic curricula.

Over the course of the 2000-2001 school year, the Educational Technology Team, in conjunction with NHA teachers, has developed over 300 lessons, units and projects that integrate the technology curriculum into other curricular areas. These resources span all subject areas and grade levels and are made available to all NHA teachers in electronic form. Through the implementation of this technology plan, it is NHA's vision that this development will continue and lessons, units, projects, and other resources will continue to be made available to all NHA teachers that tie the technology curriculum into other curricular areas. The following is an example of a lesson that integrates technology objectives within other curricular areas.

A class is about to begin a unit on fractions within the fourth grade math curriculum. The teacher works with the Educational Technology Specialist to develop a lesson where students are to divide certain shapes into sections and then color the sections to depict a given fraction. The lesson will be done using a paint/draw program on the computer. See the example below:

1. Use the paint tools to divide the following shapes into fourths.
2. Use the paint tools to color the sections of each object to show the following:
  - a. Circle:  $\frac{3}{4}$
  - b. Rectangle:  $\frac{1}{4}$



The teacher will spend a small amount of time at the beginning of the lesson to explain how to use the paint/draw program, but the primary focus of the lesson will be focused on getting a better understanding of fractions. This lesson ties together many of the technology curriculum's paint/draw program objectives as well as many of the fraction objectives found in the mathematics curriculum.

Grade Levels	Computer Skill Acquisition	Technology-Infused Delivery of Instruction
K - 2	<p>No instructional time is devoted to computer skill development.</p> <p><b>Resources:</b> None</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity</p>
3 - 5	<p>Instructional time is devoted to developing specific technology skills such as:</p> <ol style="list-style-type: none"> <li>1. Computer operations</li> <li>2. File management</li> <li>3. Word processing</li> <li>4. Keyboarding</li> <li>5. Presentation tools</li> <li>6. Spreadsheet use</li> <li>7. Database basics</li> <li>8. Internet use &amp; responsibilities</li> </ol> <p><b>Resources:</b> Some significant student access to computer required. Classroom teacher will be responsible for the delivery of this instruction. Curriculum to be developed and supplied by NHA.</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p>Students use computers to develop materials, complete assessments, or engage in simulations. Work can be individual, in pairs, or in small groups.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity Some significant student access to computers required.</p>
6 - 8	<p>Instructional time in the middle school "Media / Technology" elective course is devoted to developing specific technology skills such as:</p> <ol style="list-style-type: none"> <li>1. Digital imaging</li> <li>2. Digital audio</li> <li>3. Desktop publishing</li> <li>4. Presentation</li> <li>5. Basics of good design</li> <li>6. Web page authoring</li> <li>7. Application integration</li> <li>8. Internet use</li> </ol> <p><b>Resources:</b> Some significant student access to computer required. Classroom teacher will be responsible for the delivery of this instruction. Curriculum to be developed and supplied by NHA.</p> <p>It is desirable to place some computers permanently in each middle school classroom to achieve a fully integrated environment</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p>Students use computers to develop materials, complete assessments, or engage in simulations. Work can be individual, in pairs, or in small groups.</p> <p>Students utilize computers independently to accomplish tasks appropriate to the use of the computer as a tool. Computers become seamlessly integrated tools in the middle school classroom, mimicking their place in the adult work environment.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity Some significant student access to computers required. Permanently placed PCs in middle school classroom are desirable.</p>

**Introduce:** Direct instruction of the technology objectives.

**Develop:** Apply the technology objective with direction,

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 1: Students will demonstrate awareness, knowledge and appropriate usage of computer hardware components.</b>	
<b>Mouse Skills:</b>	
Mouse Skills: Point and Click/Double Click	Independent User
Mouse Skills: Point and Select from Menu	Independent User
Mouse Skills: Point, Click, and Drag	Independent User
Mouse Skills: Know the basic functional differences between left and right mouse buttons.	Independent User
<b>Keyboarding Skills:</b>	
Keyboarding Skills: Use Typing Tutorial Program.	Independent User
Keyboarding Skills: Proficiently type, using proper hand position, with all alphanumeric keys.	Independent User
<b>Other:</b>	
Identify and know the basic functions of computer hardware.	Independent User
Know potential hazards that could damage computer hardware.	Independent User
Learn NHA's student computer usage policies.	Independent User
Know basic facts about networked computers.	Independent User
Uses a variety of input and output devices. (Scanner, Digital Camera, etc...)	Independent User
Know the differing capacities and trade-offs for computer storage media.	Develop

<b>Content Standard 2: Students will demonstrate awareness, knowledge and usage in file management and basic computer operation.</b>	
<b>File Management:</b>	
File Management: Save (Name, Choose a location)	Independent User
File Management: Retrieve saved documents	Independent User
File Management: Distinguish between Save and Save As	Independent User
File Management: Create back-up of documents.	Independent User
<b>Computer Operation Skills:</b>	
Computer Operation Skills: Know how to start a computer software program	Independent User
Computer Operation Skills: Cut, Copy, Paste	Independent User
Computer Operation Skills: Manipulate Windows (Task Bar, Close Button, Minimize Button, Maximize Button, Restore Window Button)	Independent User
Computer Operation Skills: Trouble-shoots simple problems.	Develop

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

<b>Content Standard 3: Students will demonstrate awareness, knowledge, and usage of a word processor, spreadsheet, and database.</b>	
<b>Word Processing:</b>	
Word Processing: Know how to start a new Word Processing document.	Independent User
Word Processing: Change the font and size of text.	Independent User
Word Processing: Align text with alignment buttons.	Independent User
Word Processing: Highlight text with the mouse.	Independent User
Word Processing: Change the format of text with bold, italics and underline.	Independent User
Word Processing: Know how to print independently.	Independent User
Word Processing: Use the cut and paste commands.	Independent User
Word Processing: Use the menu bar functions.	Independent User
Word Processing: Insert Clip Art	Independent User
Word Processing: Use Spell Check	Independent User
Word Processing: Learn Keyboard short-cuts (Ctrl-V = Paste, etc...)	Develop
Word Processing: Learn to use headers and footers.	Develop
<b>Spreadsheet:</b>	
Spreadsheet: Use the mouse to select a cell.	Independent User
Spreadsheet: Enter data into a cell.	Independent User
Spreadsheet: Learn spreadsheet terms.	Independent User
Spreadsheet: Know how to start a new Spreadsheet document.	Independent User
Spreadsheet: Learn to graph or chart.	Independent User
Spreadsheet: Learn to add/subtract cell information.	Independent User
Spreadsheet: Create formula functions.	Introduce
<b>Database:</b>	
Database: Know how to start a new Database document.	Develop
Database: Know database terms.	Develop
Database: Know how to create fields and enter information into records.	Develop
Database: Learn to sort the database based on one field.	Develop
Database: Perform a search based on one or more fields.	Develop

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

<b>Other:</b>	
Know basic distinctions among computer software programs, such as word processors, special purpose programs, and games.	Independent User
Start using multiple applications to complete one document or project. (eg. Insert a spreadsheet into a word processing document)	Develop
Know how formats differ among software applications and hardware platforms.	Develop

**Content Standard 4: Students will demonstrate knowledge of creating and using graphics, desktop publishing, and creating presentations.**

<b>Graphics:</b>	
Know how to use basic painting and drawing tools.	Independent User
Able to put shapes together to create a picture.	Independent User
Know how to use advanced painting and drawing tools.	Independent User
Know how to select specific areas of a painting or drawing.	Independent User
Know how to use cut, copy, and paste with selected shapes.	Independent User
Know the differences between several graphic formats.	Develop
<b>Desktop Publishing/Presentations:</b>	
Know how to insert clip art.	Independent User
Learn how to select and use a template.	Independent User
Know how to Zoom in and out.	Independent User
Learn how to create a basic presentation.	Independent User
Use special hardware devices for input within a document (scanner, digital camera).	Independent User
Learn how to format a Presentation.	Develop
Complete a content area project.	Develop
Complete and present a content area project presentation using Microsoft Powerpoint.	Develop
Use multimedia within a document/presentation. (video, animation, sound, etc...)	Develop

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

<b>Content Standard 5: Students will demonstrate awareness, knowledge and useage of the World Wide Web and research tools that leverage technology.</b>	
Know how to search for information within a reference-based software program.	Independent User
Learn Internet etiquette; do's and don't's	Independent User
Know basic internet terms.	Independent User
Manually entering an Internet Web address (URL).	Independent User
Learn how to search and use keywords within a search engine.	Independent User
Learn Internet Explorer button functions (back, forward, stop, etc..).	Independent User
Learn to access, send and reply with e-mail.	Independent User
Learn how to download graphics.	Independent User
Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.	Develop

<b>Content Standard 6: Students will demonstrate an understanding of the relationships among science, technology, society, and the individual.</b>	
Know ways that technology is used at home and school.	Independent User
Know that new tools and ways of doing things affect all aspects of life, and may have positive or negative effects on other people.	Independent User
Understand that when an individual creates something on a computer, the created work is that person's property, and only that person has the right to change it.	Independent User
Know that technologies often have costs as well as benefits and can have an enormous effect on people and other living things.	Independent User
Know that new inventions often lead to other new inventions and ways of doing things.	Independent User
Know areas in which technology has improved human lives.	Independent User
Understand the concept of software piracy.	Independent User
Know ways in which technology has influenced the course of history.	Develop
Know that science cannot answer all questions and technology cannot solve all human problems nor meet all human needs.	Introduce
Know examples of copyright violations and computer fraud and possible penalties.	Introduce

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

**Content Standard 7: Students will demonstrate an understanding of how technology can be used as a tool for problem solving and decision making.**

Know that objects occur in nature; but people can also design and make objects.	Independent User
Know that tools can be used to observe, measure, make things, and do things better and/or more easily.	Independent User
Know that people are always inventing new ways to solve problems and get work done.	Independent User
Identify a simple problem that can be solved using technology.	Independent User
Know constraints that must be considered when designing a solution to a problem.	Independent User
Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.	Independent User
Know that people have invented and used tools throughout history to solve problems and improve ways of doing things.	Independent User
Identify appropriate problems for technological design.	Introduce
Design a solution or product, taking into account needs and constraints.	Introduce
Implement a proposed design.	Introduce

## Scope and Sequence of Content Standards Grades 3-8

**Introduce:** Direct instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

Content Standard 1: Students will demonstrate awareness, knowledge and appropriate useage of computer hardware components.						
	3	4	5	6	7	8
<b>Mouse Skills:</b>						
Mouse Skills: Point and Click/Double Click	I	D	IU	IU	IU	IU
Mouse Skills: Point and Select from Menu	I	D	IU	IU	IU	IU
Mouse Skills: Point, Click, and Drag	I	D	IU	IU	IU	IU
Mouse Skills: Know the basic functional differences between left and right mouse buttons.			I	D	IU	IU
<b>Keyboarding Skills:</b>						
Keyboarding Skills: Use Typing Tutorial Program.		I	D	IU	IU	IU
Keyboarding Skills: Proficiently type, using proper hand position, with all alphanumeric keys.		I	D	IU	IU	IU
<b>Other:</b>						
Identify and know the basic functions of computer hardware.	I	D	IU	IU	IU	IU
Know potential hazards that could damage computer hardware.	I	D	IU	IU	IU	IU
Learn NHA's student computer useage policies	I	D	IU	IU	IU	IU
Know basic facts about networked computers			I	D	IU	IU
Uses a variety of input and output devices (Scanner, Digital Camera, etc . .)			I	D	IU	IU
Know the differng capacities and trade-offs for computer storage media.				I	D	IU

Content Standard 2: Students will demonstrate awareness, knowledge and useage in file management and basic computer operation.						
	3	4	5	6	7	8
<b>File Management:</b>						
File Management Save (Name, Choose a location)	I	D	IU	IU	IU	IU
File Management Retneve saved documents	I	D	IU	IU	IU	IU
File Management Distinguish between Save and Save As		I	D	IU	IU	IU
File Management Create back-up of documents			I	D	IU	IU
<b>Computer Operation Skills</b>						
Computer Operation Skills Know how to start a computer software program	I	D	IU	IU	IU	IU
Computer Operation Skills Cut, Copy, Paste		I	D	IU	IU	IU
Computer Operation Skills Manipulate Windows (Task Bar, Close Button, Minimize Button, Maximize Button, Restore Window Button)		I	D	IU	IU	IU
Compute: Operation Skills Trouble-shoots simple problems				I	D	IU

**Introduce:** Direct Instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

Content Standard 3: Students will demonstrate awareness, knowledge, and usage of a word processor, spreadsheet, and database.						
	3	4	5	6	7	8
<b>Word Processing:</b>						
Word Processing: Know how to start a new Word Processing document.	I	D	IU	IU	IU	IU
Word Processing: Change the font and size of text.	I	D	IU	IU	IU	IU
Word Processing: Align text with alignment buttons.	I	D	IU	IU	IU	IU
Word Processing: Highlight text with the mouse.	I	D	IU	IU	IU	IU
Word Processing: Change the format of text with bold, italics and underline.	I	D	IU	IU	IU	IU
Word Processing: Know how to print independently.	I	D	IU	IU	IU	IU
Word Processing: Use the cut and paste commands.		I	D	IU	IU	IU
Word Processing: Use the menu bar functions.		I	D	IU	IU	IU
Word Processing: Insert Clip Art		I	D	IU	IU	IU
Word Processing: Use Spell Check			I	D	IU	IU
Word Processing: Learn Keyboard short-cuts (Ctrl-V = Paste, etc....)				I	D	IU
Word Processing: Learn to use headers and footers.				I	D	IU
<b>Spreadsheet:</b>						
Spreadsheet: Use the mouse to select a cell	I	D	IU	IU	IU	IU
Spreadsheet: Enter data into a cell	I	D	IU	IU	IU	IU
Spreadsheet: Learn spreadsheet terms		I	D	IU	IU	IU
Spreadsheet: Know how to start a new Spreadsheet document		I	D	IU	IU	IU
Spreadsheet: Learn to graph or chart			I	D	IU	IU
Spreadsheet: Learn to add/subtract cell information			I	D	IU	IU
Spreadsheet: Create formula functions					I	D
<b>Database:</b>						
Database: Know how to start a new Database document				I	D	IU
Database: Know database terms				I	D	IU
Database: Know how to create fields and enter information into records				I	D	IU
Database: Learn to sort the database based on one field				I	D	IU
Database: Perform a search based on one or more fields				I	D	IU
<b>Other</b>						
Know basic distinctions among computer software programs, such as word processors, special purpose programs, and games		J	D	IU	IU	IU
Start using multiple applications to complete one document or project (eg insert a spreadsheet into a word processing document)				I	D	IU
Know how formats differ among software applications and hardware platforms				I	D	IU

**Introduce:** Direct Instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 4: Students will demonstrate knowledge of creating and using graphics, desktop publishing, and creating presentations.</b>						
	3	4	5	6	7	8
<b>Graphics:</b>						
Know how to use basic painting and drawing tools.	I	D	IU	IU	IU	IU
Able to put shapes together to create a picture.	I	D	IU	IU	IU	IU
Know how to use advanced painting and drawing tools.			I	D	IU	IU
Know how to select specific areas of a painting or drawing.			I	D	IU	IU
Know how to use cut, copy, and paste with selected shapes.			I	D	IU	IU
Know the differences between several graphic formats.				I	D	IU
<b>Desktop Publishing/Presentations:</b>						
Know how to insert clip art.		I	D	D	IU	IU
Learn how to select and use a template			I	D	IU	IU
Know how to Zoom in and out			I	D	IU	IU
Learn how to create a basic presentation			I	D	IU	IU
Use special hardware devices for input within a document (scanner, digital camera)			I	D	IU	IU
Learn how to format a Presentation				I	D	IU
Complete a content area project				I	D	IU
Complete and present a content area project presentation using Microsoft Powerpoint				I	D	IU
Use multimedia within a document/presentation (video, animation, sound, etc. . )				I	D	IU

<b>Content Standard 5. Students will demonstrate awareness, knowledge and usage of the World Wide Web and research tools that leverage technology.</b>						
	3	4	5	6	7	8
Know how to search for information within a reference-based software program	I	D	IU	IU	IU	IU
Learn Internet etiquette do's and don't's	I	D	IU	IU	IU	IU
Know basic internet terms	I	D	IU	IU	IU	IU
Manually entering an Internet Web address (URL)			I	D	IU	IU
Learn how to search and use keywords within a search engine			I	D	IU	IU
Learn Internet Explorer button functions (back, forward, stop, etc. )			I	D	IU	IU
Learn to access, send and reply with e-mail			I	D	IU	IU
Learn how to download graphics			I	D	IU	IU
Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness and bias of electronic information sources concerning real-world problems				I	D	IU

**Introduce:** Direct instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

Content Standard 6: Students will demonstrate an understanding of the relationships among science, technology, society, and the individual.						
	3	4	5	6	7	8
Know ways that technology is used at home and school.			I	D	IU	IU
Know that new tools and ways of doing things affect all aspects of life, and may have positive or negative effects on other people.			I	D	IU	IU
Understand that when an individual creates something on a computer, the created work is that person's property, and only that person has the right to change it.			I	D	IU	IU
Know that technologies often have costs as well as benefits and can have an enormous effect on people and other living things.			I	D	IU	IU
Know that new inventions often lead to other new inventions and ways of doing things.			I	D	IU	IU
Know areas in which technology has improved human lives.			I	D	IU	IU
Understand the concept of software piracy.			I	D	IU	IU
Know ways in which technology has influenced the course of history.				I	D	IU
Know that science cannot answer all questions and technology cannot solve all human problems nor meet all human needs.					I	D
Know examples of copyright violations and computer fraud and possible penalties.					I	D
Know that technology and science are reciprocal. They both are the driving force behind each other.						I
Know ways in which technology and society influence one another.						I

Content Standard 7: Students will demonstrate an understanding of how technology can be used as a tool for problem solving and decision making.						
	3	4	5	6	7	8
Know that objects occur in nature, but people can also design and make objects.	I	D	IU	IU	IU	IU
Know that tools can be used to observe, measure, make things, and do things better and/or more easily.	I	D	IU	IU	IU	IU
Know that people are always inventing new ways to solve problems and get work done.	I	D	IU	IU	IU	IU
Identify a simple problem that can be solved using technology.			I	D	IU	IU
Know constraints that must be considered when designing a solution to a problem.			I	D	IU	IU
Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.			I	D	IU	IU
Know that people have invented and used tools throughout history to solve problems and improve ways of doing things.			I	D	IU	IU
Identify appropriate problems for technological design.					I	D
Design a solution or product taking into account needs and constraints.					I	D
Implement a proposed design.					I	D

**VISUAL ARTS  
SEVENTH GRADE**

**Mission Statement  
NHA Visual Arts Education  
Grade Level Content Standards  
and Objectives**

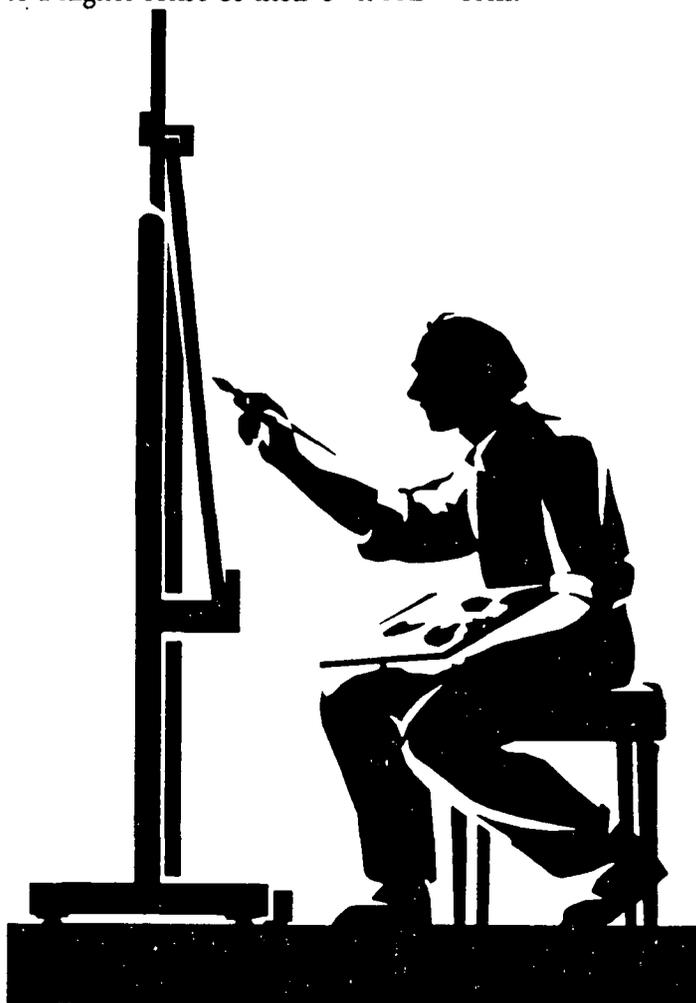


## Visual Arts Mission Statement National Heritage Academies

In teaching the visual arts, we seek to provide the student with the tools to understand the significant role the visual arts play in our lives with their power to express ideas throughout history. The visual arts are an essential means of communication in our society and we seek to enable the child to use the visual arts to express his or her own unique ideas.

The visual arts curriculum will equip the learner with a philosophical, intellectual, physical, emotional, and moral foundation in the visual arts. From this foundation, we seek to enhance the critical thinking and problem-solving skills of the student through creativity and self-expression.

We believe the visual arts are essential to a child's education and provide an opportunity for each child to become a valuable and contributing member of our society, ultimately leading to a higher sense of their own self-worth.



<p style="text-align: center;"><b>NATIONAL HERITAGE ACADEMIES</b> <b>VISUAL ARTS EDUCATION</b></p>
--

**Art History**

The study of art history will enable students to appreciate and understand artworks and artists from various cultures past and present.

**Aesthetics**

Aesthetics in art education helps form the foundation of a student's understanding of the arts as a unique and important human experience. The study of aesthetics will enable the student to view, appreciate, interpret and evaluate works of art.

**Art Production**

Students will use various mediums and techniques to produce works of art that express personal thoughts, feelings, and perceptions.

**Art Criticism**

Art criticism is an effort to fully understand works of art by precisely describing them, analyzing their components, interpreting them and making judgments about the content or form according to established standards.

**Integration**

Integrating art into the classroom curriculum helps the student understand the correlation between the two areas of study.

## Visual Arts: Grade 7

Content Standards
<b>Seventh Grade students will:</b>
1. Formulate a position regarding meaning in works of art
2. Compare formal qualities in works of art
3. Understand the role of historical/cultural context for works of art
4. Create expressive artwork in varied media, independently, and in collaborative groups
5. Judge own artwork using methods and vocabulary of aesthetics and art criticism

### I. Art History: Periods and Schools

#### A. IMPRESSIONISM

- Examine characteristics of Impressionism in  
 Claude Monet, *Impression: Sunrise, Bridge Over a Pool of Lilies*  
 Pierre Auguste Renoir, *Luncheon of the Boating Party*  
 Edgar Degas, a ballet painting such as *Dancing Class*  
 Mary Casset, *The Boating Party*

#### B. POST-IMPRESSIONISM

- Examine characteristics of Post-Impressionism in  
 Paul Cezanne: a still life such as *Apples and Oranges*, a version of  
*Mont Sainte-Victoire, The Card Players*  
 Georges Seurat and pointillism: *Sunday Afternoon on the*  
*Island of the Grand Jatte*  
 Vincent van Gogh: *The Starry Night*, one of his  
*Sunflowers*; a self-portrait such as *Self-Portrait (1889)*  
 Paul Gauguin: *Vision After the Sermon, Hail Mary (la*  
*Orana Maria)*  
 Henri Toulouse-Lautrec. *At the Moulin Rouge*  
 Art Nouveau as a pervasive style of decoration

### C. EXPRESSIONISM AND ABSTRACTION

- Examine representative artists and works, including
  - Henri Matisse: *Madame Matisse*, *The Red Room*, cutouts  
such as *Beasts of the Sea*
  - Edvard Munch, *The Scream*
  - Marc Chagall, *I and the Village*
  - Pablo Picasso's early works, including *Family of Saltimbanques*
- Cubism
  - Pablo Picasso, *Les Femmes d'Alger (O. J. R. M.)*
  - Marcel Duchamp, *Nude Descending a Staircase*
- Picasso after Cubism: *Girl before a Mirror*, *Guernica*
- Other developers of abstraction
  - Vassily Kandinsky, *Improvisation 31 (Sea Battle)*
  - Paul Klee, *Senecio* (also known as *Head of a Man*)
  - Piet Mondrain, *Broadway Boogie Woogie*
  - Salvador Dali and surrealism: *The Persistence of Memory*

### D. MODERN AMERICAN PAINTING

- Examine representative artists and works, including
  - Edward Hopper, *Nighthawks*
  - Andrew Wyeth, *Christina's World*
  - Georgia O'Keeffe, *Red Poppies*
- Regionalists, social realists, and genre painters
  - Grant Wood, *American Gothic*
  - Diego Rivera (Mexican), *Detroit Industry*
  - Norman Rockwell, *Triple Self-Portrait*

**MUSIC  
SEVENTH GRADE**

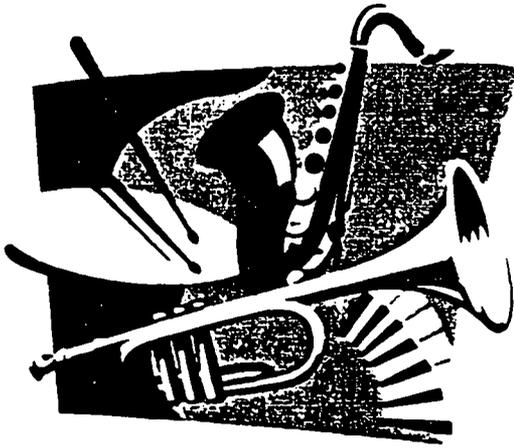
**NHA Music Philosophy  
Grade Level Content Standards  
Supplies and Curriculum  
Component Chart Grade 7-2000**



## NHA MUSIC PHILOSOPHY

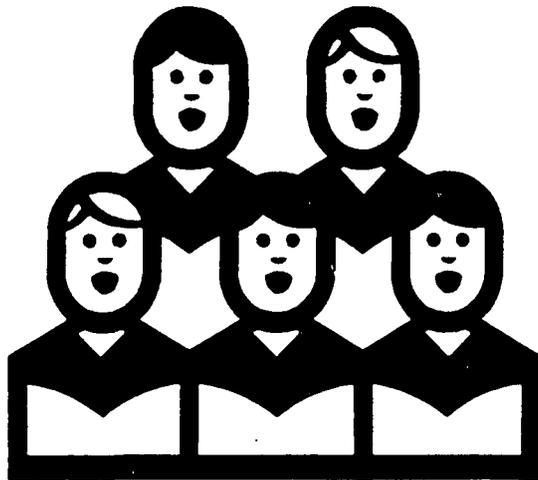
Music is an integral part of life in our cultures, communications, and creativity and expressive abilities. An innate part of our natural being, our musical intelligence needs to be developed and enhanced through formal music education to complete a balanced education for our charter school students.

Music education is especially beneficial for students with lower verbal abilities and has been shown to increase verbal SAT scores by as much as 34-38 points. Music students have been proven to be ahead of other students in writing, communication and analytical skills, and have outperformed non-music students on achievement tests in reading and math. The study of music enhances self-discipline, self-confidence, team skills, and self-motivation.



**MIDDLE SCHOOL MUSIC**  
**GRADES 6, 7, and 8**

**Grade 6 - Music Required - Choices.**  
**Choir, Band, or Orchestra**



**Grade 7 - Music Required - Choices**  
**Choir, Band, or Orchestra**



**Grade 8 - Music Elective (Optional) - Choir, Band, Orchestra**



## Supplies and Curriculum for Start-up Charter Schools

**Essential Items: All to be ordered by school principal and music teacher**

**Music Room:**

60' X 30' soundproofed room for any school expected to house K-8 music program with storage cupboards for equipment, supplies, stereo, and instruments

Large industrial basin sink with running water

4' X 8' white board

Standard teacher's desk, 2 drawer file, 4 drawer file (for music storage)

30 stackable chairs, 25 music stands (13 stands for elementary program start-up)

**Keyboard and Stereo:**

Clavinova Keyboard (approx. \$3,000 1998 prices)

C.D./Cassette player with split trax capabilities

**Curriculum:**

Core Knowledge materials and NHA content standards

K-6 teacher's edition, C.D.'s, and 24 student books of "Share the Music" curriculum

**Rhythm Instruments for Elementary Program:**

(current contact: John Gillette@Marshall Music Company Grand Rapids office, will give 40-50% school discount) **Ordered in School Speciality Starting Kit for new schools**

24 rhythm sticks

2 pair maracas

3 triangles (small, medium, and large with strikers)

2 tambourines

2 sets wood blocks

2 pair claves

1 guiro

2 pair sand blocks

2 hand drums (one each, large and small)

1 small set of cymbals

1 set bongos

1 set of handle bells

4 sets wrists bells

1 each of alto xylophone and glockenspiel

**Recorders:**

(Recorders are part of the 4th grade curriculum standards)

25 alto recorders

13 "Hal Leonard" recorder books

**Bowmar Orchestral Library:**

(Music listening and appreciation are required as content standards and this set of C.D.'s would fulfill these requirements)

Series 1, 2, & 3 West Music Supply Company page # 89  
CDBM5111; CDBM5112, CDBM5113

**Games:**

Instrument Bingo - page 14, Music in Motion Catalogue # 6107 \$29.95

**Meet the Instruments Posters:**

25, full-color 14" X 22" posters - page 22 Music in Motion Catalogue 35904,  
\$77.00

## McGraw Hill Companies Component Chart - Grade 7 - 2000

The items listed below are suggestions. To place an order: 1-800-442-9685, The McGraw Hill Companies, 220 East Daniel Dale Road, Desoto, Texas 75115, [www.mhschool.com](http://www.mhschool.com)

**\* Music Teachers are able to place orders with other vendors due to availability**

0-02-295373-6	Pupil Edition	48.00	_____	_____
0-02-295393-0	Teacher's Edition (with Piano Accompaniment)	141.00	_____	_____
0-02-295382-5	Teacher's Edition	84.00	_____	_____
0-02-295420-1	Teacher's Resource Package	96.00	_____	_____
0-02-295429-5	Teacher's Resource Masters	17.25	_____	_____
0-02-295442-2	Compact Discs	507.00	_____	_____

### **VIDEOTAPE PACKAGES**

0-02-295485-6	Sounds of Percussion Videotape, Gr. 4-8	36.99	_____	_____
0-02-295486-4	Blending Musical Styles Videotape, Gr. 4-8	36.99	_____	_____
0-02-295487-2	Making a Music Videotape, Gr. 4-8	36.99	_____	_____
0-02-295488-0	The Mariachi Tradition Videotape, Gr. 1-8	38.49	_____	_____
0-02-295492-9	Introduction to the Computer in Music Videotape Gr. 3-8	36.72	_____	_____
0-02-295493-7	Composing Made Easy Videotape, Gr. 5-8	36.99	_____	_____

### **TECHNOLOGY**

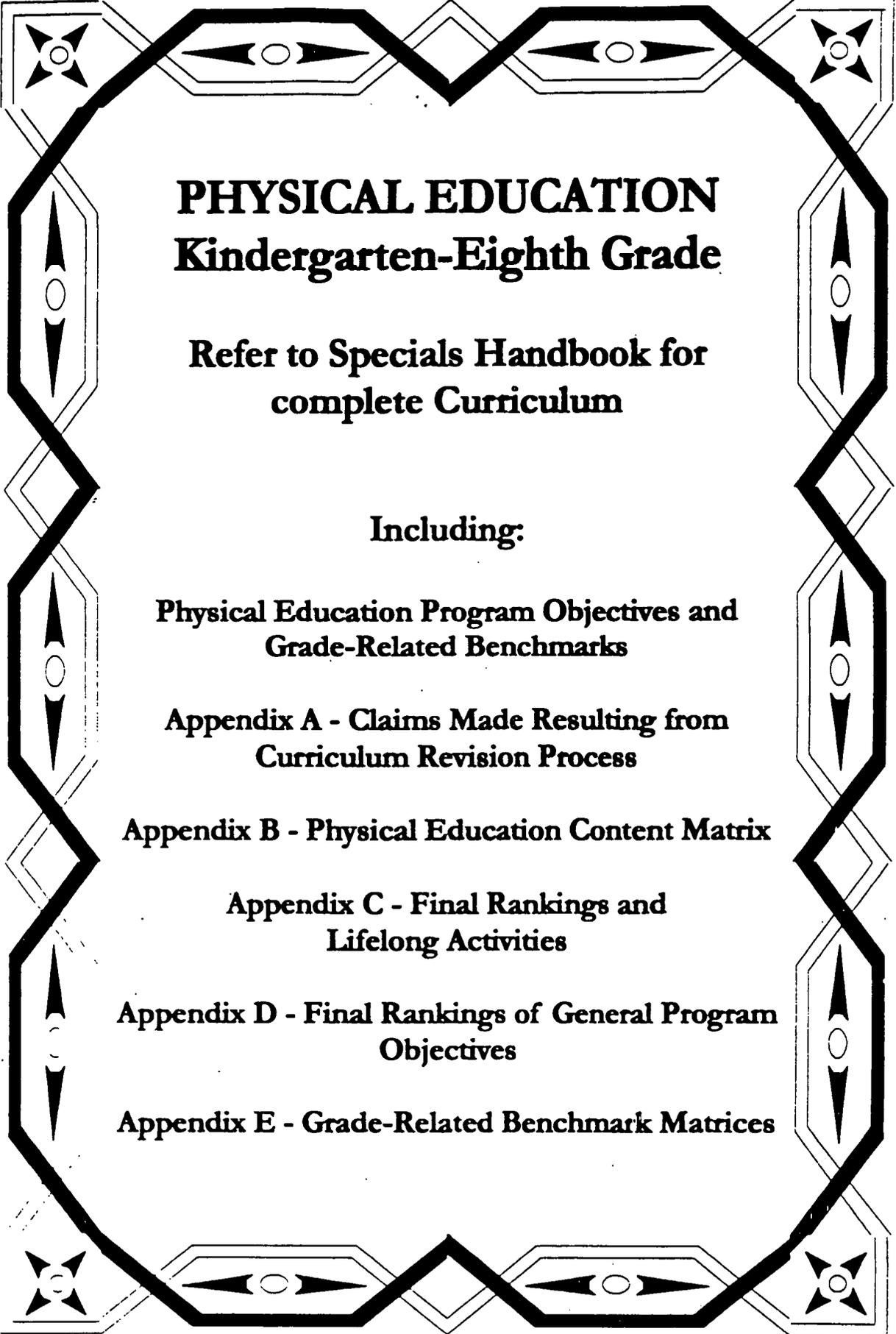
0-02-295231-4	Standard Package	88.08	_____	_____
0-02-295237-3	Site License Package	333.00	_____	_____
0-02-295298-5	District License Package	828.00	_____	_____

### **GUITAR 101: THE FENDER METHOD CD-ROM**

0-02-295532-1	Guitar 101: The Fender Method CD-ROM (win)	29.99	_____	_____
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### **G-VOX GUITAR CD-ROM**

0-02-295533-X	G-VOX Guitar CD-ROM (win)	99.00	_____	_____
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**PHYSICAL EDUCATION  
Kindergarten-Eighth Grade**

**Refer to Specials Handbook for  
complete Curriculum**

**Including:**

**Physical Education Program Objectives and  
Grade-Related Benchmarks**

**Appendix A - Claims Made Resulting from  
Curriculum Revision Process**

**Appendix B - Physical Education Content Matrix**

**Appendix C - Final Rankings and  
Lifelong Activities**

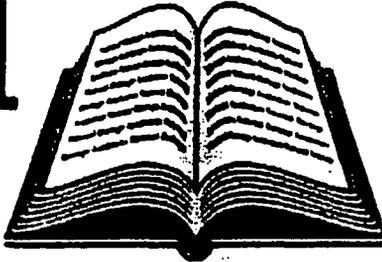
**Appendix D - Final Rankings of General Program  
Objectives**

**Appendix E - Grade-Related Benchmark Matrices**

# **Eighth Grade**

# **Curriculum Handbook 2001-2002**

# National Heritage Academies™



## MISSION

**Challenging children to achieve their greatest potential.**

## VISION

**Our shared vision is to build a national organization of over 200 charter schools that become the finest K-8 schools in the country. Using a partnership with parents as our foundation, we will achieve this by combining rigorous, "back-to-basics" academics, strong moral development, and a universal commitment to all children.**

## PHILOSOPHY

**National Heritage is guided by a few key principles that guide us in all our program decisions. First, we believe that a school environment with high academic and social expectations is necessary for students to thrive. Second, the company believes that parents have the ultimate responsibility for their children's education and, thus, will choose what is best for their children. Third, we believe that a school should support and reinforce the moral guidance a child receives at home. And, finally, we believe that a child's self-esteem is developed through diligence and achievement.**

**The NHA Curriculum Handbooks are dedicated  
to the 2001-2002 Teacher Presenter Team**

**Teacher Presenter**

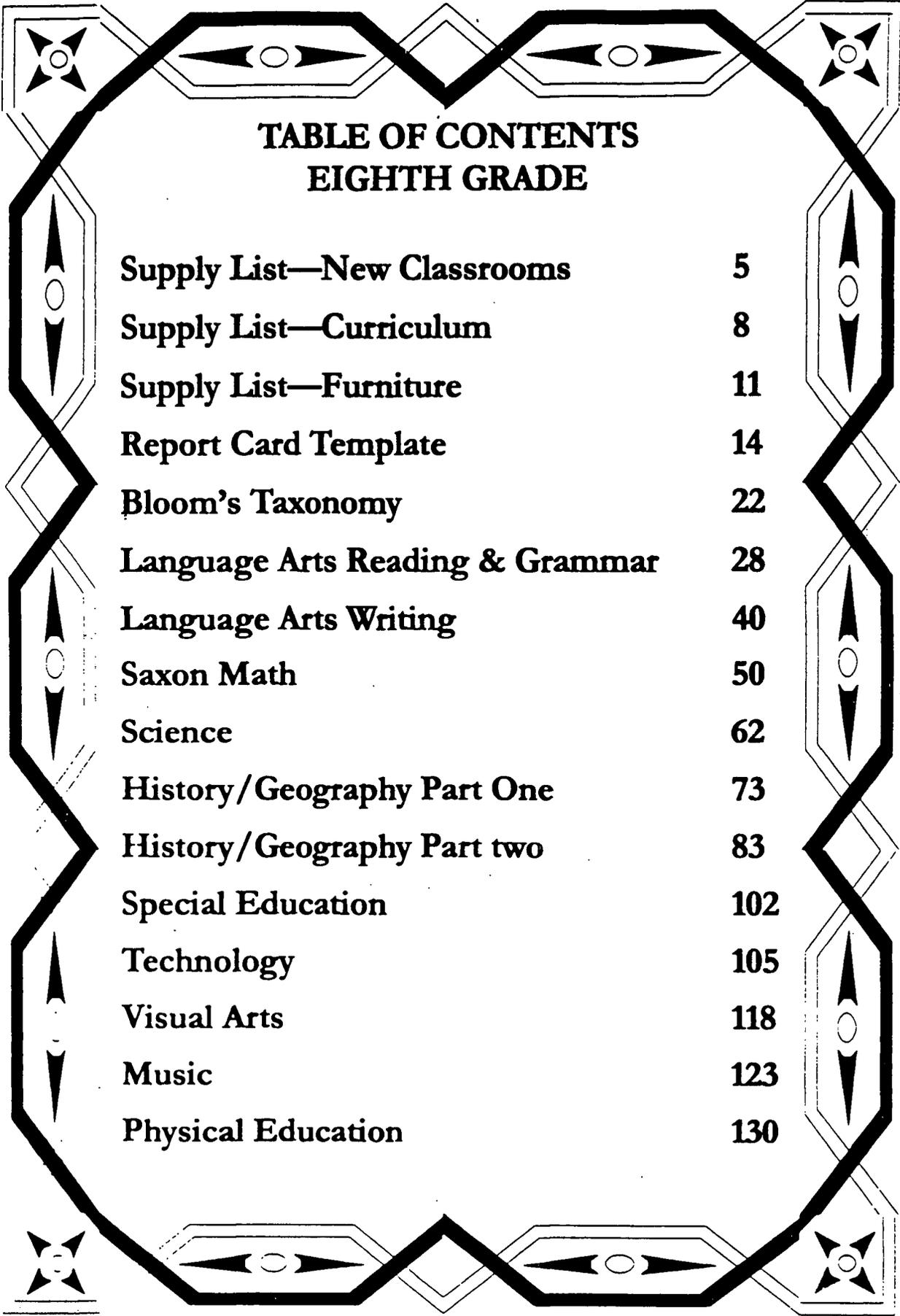
Laura Bartlett  
Michelle Bauman  
Jane Beal  
James Robert Brown  
Linda Chaffee  
Kim Chapin  
Melissa Flickinger  
Daphne Franklin  
Mary Claire Fu  
Erin Greenop  
Heather Guerra  
Tuwanda Hairston  
Casey Helmreich  
Sarah Huddleston  
Emilie Johnson  
Jeff Johnston  
Diane Kennedy  
Kimberly Kobylik  
Kevin Kooiker  
Johann Linna  
Mandy Lohman  
Angela Newton  
Nicole Pachulski  
Kaylin Rhoades  
Cynthia Ruble  
Mary Scheidel  
Elizabeth Sinclair  
Lois Smith  
Angie Spears  
Kirt Stevens  
Rudy Swofford  
Krista Tolchin  
Dawn Tubbs  
Marsha VanderSloot  
Kathy Watson  
Rebecca Weliver  
Kathy White  
Cathy Wygmans  
Ellen Zainea

**School**

Greensboro  
Paramount  
Vista  
Greensboro  
Walker  
Eagle Crest  
Chandler Woods  
South Arbor  
Eagle Crest  
Walker  
Knapp  
Research Triangle  
North Saginaw  
Forsyth  
Forsyth  
Greensboro  
Greensboro  
Linden  
Vista  
Ridge Park  
Cross Creek  
Paramount  
Walker  
Endeavor  
Forsyth  
Cross Creek  
Endeavor  
Cross Creek  
Excel  
Vista  
Greensboro  
Endeavor  
Linden  
Vanguard  
North Saginaw  
South Arbor  
Greensboro  
Eagle Crest  
Knapp

**Corporate Education Team**  
**1-616-222-1700**

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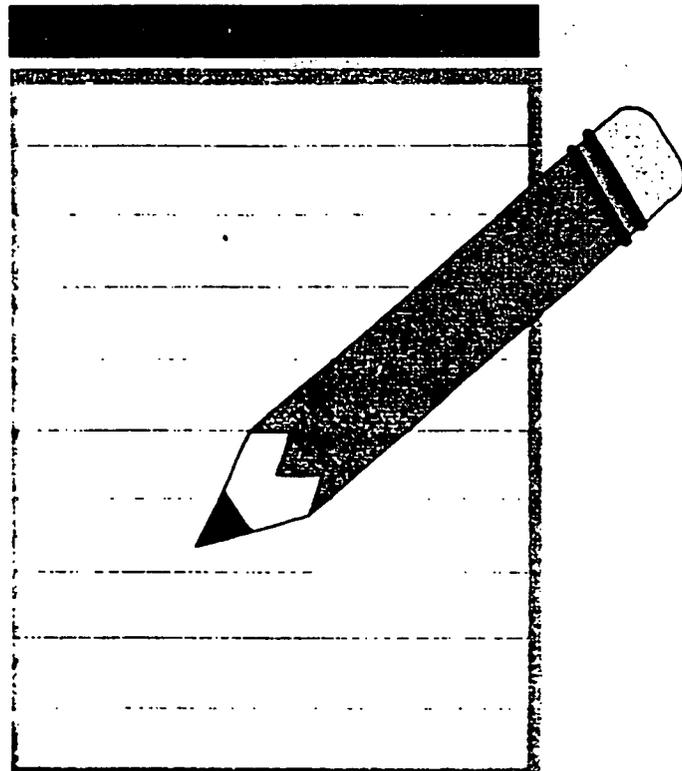


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# SUPPLY LIST EIGHTH GRADE

The supplies are provided by NHA in  
new classrooms in new and existing  
schools.

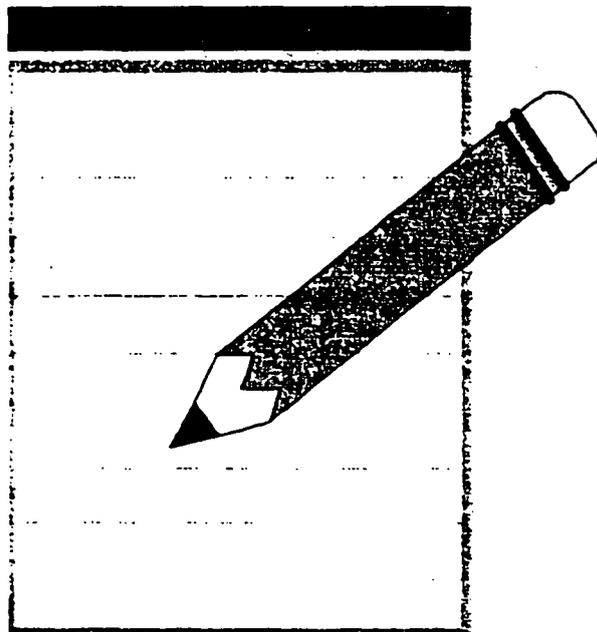


3RD GRADE - 8TH GRADE: START-UP SUPPLY LIST						
QTY ORD.	UNIT	STOCK #	DESCRIPTION	PAGE	UNIT PRICE	TOTAL PRICE
2	GR	041217	#2 PENCIL BX/144	16	8.12	16.24
1	BX	000783	LARGE BLOCK ERASER BX/40	18	4.93	4.93
2	DZ	027465	BLACK ROUND STIC PEN MED BX/12	19	1.14	2.28
2	DZ	027466	RED ROUND STIC PEN MED BX/12	19	1.14	2.28
2	DZ	027469	BLUE ROUND STIC PEN MED BX/12	19	1.14	2.28
12	EA	038850	CLASS. SEL. HIGHLIGHTER - YELLOW	25	0.14	1.68
1	ST	059178	FINE VIS-A-VIS PEN SET/4	253	2.66	2.66
12	ST	408115	WATERCOLOR MARKER ST/12	26	1.78	21.36
2	EA	023194	EXPO II CLEANER, 8 OZ.	27	1.69	3.38
3	EA	059640	EXPO DRY ERASER	27	1.88	5.64
2	ST	059460	EXPO MARKER SET/4	28	3.40	6.80
24	EA	015348	WOODEN 12" RULER	34	0.25	6.00
12	EA	015363	YARDSTICK W/METAL END	34	1.62	19.44
1	EA	038342	1670 SCHOOL PRO ELEC SHARPENER	37	35.40	35.40
1	EA	025983	3-HOLE PAPER PUNCH	38	4.17	4.17
2	EA	039423	HAND HELD PAPER PUNCH 1-HOLE	38	0.59	1.18
1	EA	061131	SWINGLINE 711 BLACK STAPLER	40	6.66	6.66
1	EA	061149	SWINGLINE 747 BLACK STAPLER	40	10.61	10.61
2	BX	061059	STANDARD STAPLES	41	0.52	1.04
2	EA	000354	9" TEACHER SHEARS	43	4.50	9.00
1	EA	371774	8" BENT TRIMMER SHEARS	43	1.52	1.52
24	EA	000327	5" CLIP QUALITY SCISSORS	45	0.63	15.12
12	RL	040722	1/2"X36YD PERMANENT MEND TAPE	46	0.60	7.20
12	RL	040587	3/4" UTILITY MASKING TAPE	47	0.70	8.40
1	EA	023127	C-38 BLACK TAPE DISPENSER	48	2.09	2.09
25	EA	023135	SMALL WASHABLE GLUESTICK	50	0.38	9.50
4	EA	035334	TAC'N STIK REUSEABLE ADHESIVE	53	1.09	4.36
5	BX	000057	PAPER CLIPS, STANDARD	54	0.12	0.60
5	BX	000072	PAPER CLIPS, JUMBO	54	0.31	1.55
1	BX	036981	2" BOOK RINGS, BOX/50	54	4.70	4.70
2	BX	059964	3/8" THUMB TACKS	55	0.24	0.48
1	BX	012291	CLEAR REPORT COVER BX/50	58	9.60	9.60
3	BX	023254	ASSORTED PORTFOLIO BX/25	59	4.85	14.55
10	PK	048267	3"X5" BLANK INDEX CARDS	62	0.43	4.30
10	PK	048270	3"X5" RULED INDEX CARDS	62	0.43	4.30
1	BX	070311	1/5CUT LET HANGING FILE FOLDER	64	4.88	4.88
1	BX	015741	1/3 CUT FILE FOLDERS	65	5.63	5.63
1	EA	038946	14 MO. DESK PAD CALENDAR 2001/2002	70	1.64	1.64
1	EA	206771	SWIVEL DESKMATE ORGANIZER	72	7.27	7.27
3	EA	021354	DESK TRAY, BLACK	73	1.76	5.28
24	EA	043530	LEGAL CLIPBOARD	76	0.80	19.20
1	EA	038434	TI-34 SCIENTIFIC CALCULATOR	79	23.76	23.76
12	EA	040269	#79 INTERMEDIATE DICTIONARY	95	10.66	127.92
12	EA	040266	#78 STUDENTS THESAURUS	97	10.66	127.92
25	EA	522155	11X7 ASSIGNMENT BOOK	108	1.27	31.75
5	RM	000513	8.5"X11" FILLER PAPER W/MARG	118	3.12	15.60
2	RL	006483	3"X200' MANILA SENTENCE ROLL	126	2.99	5.98
1	PK	204686	18"X24" 125# MANILA TAGBOARD	130	7.56	7.56
1	PK	314478	18"X24" 125# WHITE TAGBOARD	130	7.56	7.56
1	PK	215982	12"X18" TAG BOARD -ASST COLOR PK/100	130	8.49	8.49
2	PK	053958	TRU 9"x12" MAGENTA CONST PPR.	133	1.09	2.18



## **SUPPLY LIST EIGHTH GRADE**

**This is a comprehensive list of materials  
needed to teach National Heritage  
Academies' curriculum.  
Each teacher must have access to these  
supplies and materials.  
Please see your principal for access.**



Vendor	Grade	Description	Quantity	Individual Price	Total
George F. Cram Co	Eighth	U S /World Explorer Phys. Pol. Combo Map w/ insets	1	\$242.50	\$242.50
Debby & Co	Eighth	Basic Economics	1	\$9.95	\$9.95
Debby & Co	Eighth	Democracy for Young Americans	1	\$13.95	\$13.95
Debby & Co.	Eighth	Immigration	1	\$10.95	\$10.95
Debby & Co	Eighth	We the People (Duplicating Masters)	1	\$9.95	\$9.95
Debby & Co.	Eighth	Various Science Books **See AcademyLink Purchase Order form**			
Educ. Consult. Svc.	Eighth	Teaching Gifted Kids in the Regular Classroom	1	\$25.00	\$25.00
Educator's Pub.	Eighth	Book 5, Vocabulary (1p/s)	1	\$4.75	\$4.75
Educator's Pub.	Eighth	Teacher's Key	1	\$3.65	\$3.65
Educator's Pub.	Eighth	Test, Book 5 (Package of 6)	1	\$5.35	\$5.35
Flinn	Eighth	Various Science Equipment **See AcademyLink Purchase Order form**			
Frey	Eighth	Various Science Consumable Supplies **See AcademyLink Purchase Order form**			
Glencoe/McGraw	Eighth	The American Journey History - Student Edition (1p/s)	1	\$53.97	\$53.97
Glencoe/McGraw	Eighth	The American Journey History - Teacher Edition	1	77.97	\$77.97
Glencoe/McGraw	Eighth	The World & Its People Geography - Student Edition (1p/s)	1	\$50.97	\$50.97
Glencoe/McGraw	Eighth	The World & Its People Geography - Teacher Edition	1	\$73.50	\$73.50
Great Source	Eighth	Daily Geography	1	\$21.95	\$21.95
Great Source	Eighth	Daily Geography Student Book (10pk)	1	\$21.95	\$21.95
Great Source	Eighth	Daily Oral Language	1	\$21.95	\$21.95
Great Source	Eighth	Daily Oral Language Student Book (10pk)	1	\$21.95	\$21.95
Hirsch	Eighth	Books To Build On	1	\$10.95	\$10.95
Hirsch	Eighth	Core Knowledge Sequence Content Guidelines	1	\$22.50	\$22.50
Hirsch	Eighth	Realms of Gold, Vol. 3 (1p/s)	1	\$19.95	\$19.95
Hirsch	Eighth	The Schools We Need and Why We Don't Have Them	1	\$24.95	\$24.95
Holt, Rinehart	Eighth	(Adelante) Grammar and Vocab Workbook, TE w/ Key (1p/s)	1	\$11.25	\$11.25
Holt, Rinehart	Eighth	Adelante - Annotated Teacher's Edition	1	\$51.15	\$51.15
Holt, Rinehart	Eighth	Adelante - Audiocassette Program	1	\$129.00	\$129.00
Holt, Rinehart	Eighth	Adelante - Pupil's Edition	1	\$37.95	\$37.95
Holt, Rinehart	Eighth	Adelante - Video Program	1	\$198.00	\$198.00
Holt, Rinehart	Eighth	Elements of Writing - Student Edition (1p/s)	1	\$42.75	\$42.75
Holt, Rinehart	Eighth	Elements of Writing - Teacher Edition	1	\$68.70	\$68.70
Network	Eighth	Cumulative Writing Folder (25 w/ TE)	1	\$15.00	\$15.00
Network	Eighth	Developing Writing and Thinking Skills	1	\$6.00	\$6.00
Network	Eighth	Five Types of Writing Assignments (Poster)	1	\$4.00	\$4.00
Network	Eighth	Implementing the Cumulative Writing Folder	1	\$10.00	\$10.00
Network	Eighth	Selecting and Teaching Focus Correction Areas: Plan Guide	1	\$6.00	\$6.00

Network	Eighth	Writers Marks (Poster)	1	\$4.00	\$4.00
Prentice Hall	Eighth	Various Science Books (one set per grade) **See AcademyLink Purchase Order form**			
Saxon	Eighth	Solutions Manual	1	\$27.00	\$27.00
Saxon	Eighth	Student Edition Algebra 1/2 (1p/s)	1	\$45.00	\$45.00
Saxon	Eighth	Teacher's Edition	1	\$45.00	\$45.00
Saxon	Eighth	Test Masters	1	\$45.00	\$45.00
SRA/McGraw Hill	Eighth	Reading Labs - OPTIONAL **See AcademyLink Purchase Order form**			

**SUPPLY LIST  
FURNITURE  
EIGHTH GRADE**



**2000-2001 FURNITURE TABLES PER ROOM  
24 Students Per Classroom**

**Sixth, Seventh, Eighth – CSU = one classroom**

Ref. #	Item	Description	Amt.	Ordered By
1	Teacher Desk	HON34961 Double Ped	1	NHA
2	Teacher Chair	HON 7901 Task Chair	1	NHA
3	4-Drawer File	Hon 524 4 Drawer File	1	NHA
5	Tackboard 2x4	Best Rite 311AC	1	Bouma
6	Tackboard 4x8	Best Rite 311AH	2	Bouma
7	Markerboard 5x10	Best Rite 202AL	1	Bouma
	Tack Strip 5x10	532K	1	Bouma
15	CSU	Artco Bell U457 Combo Desk	24	NHA
19	Kidney Table	Artco Bell 1275 48x72	1	NHA
21	Computer Table	Artco Bell CD60	1	NHA
12	Large Chair	Artco Bell 7107 17 1/2"	6	NHA
8C	4 shelf Bookshelf	Lee Metal 48"	3	NHA
	Flag Bracket		1	Bouma
	Computer		1	NHA Tech
	Waste Basket	Large & Small	1 ea	Foremost
	Pencil Sharpener		1	Bouma
	Clock		1	Bouma
	Telephone		1	Moss

## Sixth, Seventh, Eighth – Tables – 2 classrooms

Ref. #	Item	Description	Amt.	Ordered By
1	Teacher Desk	HON34961 Double Ped	1	NHA
2	Teacher Chair	HON 7901 Task Chair	1	NHA
3	4-Drawer File	Hon 524 4 Drawer File	1	NHA
5	Tackboard 2x4	Best Rite 311AC	1	Bouma
6	Tackboard 4x8	Best Rite 311AH	2	Bouma
7	Markerboard 5x10	Best Rite 202AL	1	Bouma
	Tack Strip 2x10	532K	1	Bouma
17	Rect. Table – T	Artco Bell 1930 30 x 20	12	NHA
19	Kidney Table	Artco Bell 1275 48x72	1	NHA
21	Computer Table	Artco Bell CD60	1	NHA
12	Large Chair	Artco Bell 7107 17 1/2"	30	NHA
8C	4 shelf Bookshelf	Lee Metal 48"	3	NHA
	Flag Bracket		1	Bouma
	Computer		1	NHA Tech
	Waste Basket	Large & Small	1 ea	Foremost
	Pencil Sharpener		1	Bouma
	Clock		1	Bouma
	Telephone		1	Moss

# REPORT CARD EIGHTH GRADE

Template for 2001-2002  
All teachers will use the  
AcademyLink report module  
for Fall 2001



# Eighth Grade Report Card

	Marking Period			
	1	2	3	4
<b>English</b>				
Spelling				
Grammar				
Penmanship				
Composition				
Vocabulary				
Oral presentation				
Work Habits				
Social Behaviors				
<b>Comments:</b>				

<b>Reading</b>				
Comprehension				
Fluency				
Literature				
Work Habits				
Social Behaviors				
<b>Comments:</b>				

<b>Mathematics</b>				
Computation				
Problem solving				
Work Habits				
Social Behaviors				
<b>Comments:</b>				

<b>History/Geography/Government</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

<b>Science</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Music</b>				
<b>General music</b>				
Demonstrates appropriate attitude toward subject				
Demonstrates basic music concepts				
Listens and participates				
<b>Music Theory</b>				
Demonstrates ability to play melody and accompaniment				
Demonstrates ability to notate music				
Demonstrates compositional skills and understanding				
Demonstrates keyboarding/instrumental skills				
Demonstrates reading notated music				
Understands basic music terminology and symbols				
<b>Music history/listening</b>				
Demonstrates knowledge of composers studied				
Demonstrates music listening skills				
Identifies compositions studied				
Identifies families of instruments				
Identifies instruments by sight and sound				
<b>Recorders</b>				
Comes prepared to class				
Demonstrates fingering/playing skills				
Demonstrates reading music notation				
Participates in group/ensemble				
Turns in homework and graded project work				
<b>Instrumental/choral music</b>				
Comes prepared to class				
Completes homework and graded projects				
Concert performance and attendance				
Demonstrates appropriate playing/singing skills				
Demonstrates appropriate reading skills				
Participates in group/ensemble				
Understands music terminology and symbols				
<b>Comments:</b>				

<b>Art</b>				
Uses time wisely				
Demonstrates good conduct				
Demonstrates grade level art skills				
Graded work				
<b>Comments:</b>				

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

<b>Physical Education</b>				
Participates in class activities				
Demonstrates appropriate skill development				
Demonstrates appropriate cognitive skills through testing				
Demonstrates positive attitude toward subject				
Demonstrates teamwork				
Demonstrates sportsmanship				
Overall performance				
<b>Comments:</b>				

<b>Moral Focus</b>				
<b>Justice – the principle of just dealing or right action</b>				
Accepts responsibility for own actions				
Demonstrates compassion and kindness				
<b>Temperance – moderation in thought, action, or feeling</b>				
Completes assignments on time				
Submits homework on time				
Uses time wisely				
Works without disturbing others				
<b>Prudence – the ability to govern and discipline oneself</b>				
Displays good manners				
Displays self-control				
Respectful of property, other students, and adults				
Works cooperatively				
<b>Fortitude – the strength of mind to endure with courage</b>				
Follows directions				
Listens attentively				
Works independently				
<b>Comments:</b>				

<b>French/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Spanish/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

<b>Latin/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Computers-Technology/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Chess/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Drama/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Book Club/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

<b>Odyssey of the Mind/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Physical Education/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Science Olympiad/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Civics/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Student Senate/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

<b>Yearbook/Elective</b>				
Work Habits				
Social Behavior				
<b>Comments:</b>				

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

**Leadership/Elective**

Work Habits

Social Behavior

**Comments:**

**Journalism/Elective**

Work Habits

Social Behavior

**Comments:**

**Study Skills/Elective**

Work Habits

Social Behavior

**Comments:**

**Health and Fitness/Elective**

Work Habits

Social Behavior

**Comments:**

Student Name: \_\_\_\_\_

Teacher: \_\_\_\_\_

**Final Comments:**

### Report Card Legend

Letter Grade	Remarks
A	Excellent
B	Good
C	Satisfactory
D	Needs Improvement
F	Does not meet requirements

Skill Scale	Remarks
4	Student shows accuracy, appropriateness, quality, and originality.
3	Can apply the skill or concept correctly and independently.
2	Shows some understanding. Errors or misunderstandings occur. Teacher reminders, hints, and suggestions are necessary.
1	Cannot complete the task or skill independently. Shows little understanding of the concept. Quality is lacking.

Assigned to : \_\_\_\_\_ Grade

Student Name: \_\_\_\_\_ Teacher: \_\_\_\_\_

# BLOOM'S TAXONOMY EIGHTH GRADE

Based on *Bloom's Taxonomy*—Developed by  
Linda G. Barton, M.S. Ed. EDUPRESS EP 504

## QUICK QUESTIONS FOR CRITICAL THINKING



**Introduction**

Bloom's Taxonomy divides the way people learn into three domains. One of these is the *cognitive* domain which emphasizes intellectual outcomes. This domain further divides into categories which are arranged progressively from the lowest level of thinking, simple recall, to the highest, evaluating information.

**Quick Questions for Critical Thinking** can be used in the home, classroom or workplace to develop all levels of thinking within the cognitive domain. The results will be improved attention to detail, increased comprehension and expanded problem solving skills. Find the box containing the level you wish to challenge. Use the **Key Words** as guides to structuring questions and tasks. Finish the **Questions** with content appropriate to the learner.

<b>Level I</b>																						
Knowledge:	Exhibit memory of previously-learned material by recalling facts, terms, basic concepts and answers.																					
Key Words:	<table style="width: 100%; border: none;"> <tr> <td>who</td><td>what</td><td>why</td><td>when</td><td>omit</td><td>where</td><td>which</td> </tr> <tr> <td>choose</td><td>find</td><td>how</td><td>define</td><td>label</td><td>show</td><td>spell</td> </tr> <tr> <td>list</td><td>match</td><td>name</td><td>relate</td><td>tell</td><td>recall</td><td>select</td> </tr> </table>	who	what	why	when	omit	where	which	choose	find	how	define	label	show	spell	list	match	name	relate	tell	recall	select
who	what	why	when	omit	where	which																
choose	find	how	define	label	show	spell																
list	match	name	relate	tell	recall	select																
Questions:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>* What is ... ?</li> <li>* Where is ... ?</li> <li>* How did _____ happen?</li> <li>* Why did ... ?</li> <li>* When did ... ?</li> <li>* How would you show ... ?</li> <li>* Who were the main ... ?</li> <li>* Which one ... ?</li> </ul> </td> <td style="width: 50%;"> <ul style="list-style-type: none"> <li>* How is ... ?</li> <li>* When did _____ happen?</li> <li>* How would you explain ... ?</li> <li>* How would you describe ... ?</li> <li>* Can you recall ... ?</li> <li>* Can you select ... ?</li> <li>* Can you list the three ... ?</li> <li>* Who was ... ?</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>* What is ... ?</li> <li>* Where is ... ?</li> <li>* How did _____ happen?</li> <li>* Why did ... ?</li> <li>* When did ... ?</li> <li>* How would you show ... ?</li> <li>* Who were the main ... ?</li> <li>* Which one ... ?</li> </ul>	<ul style="list-style-type: none"> <li>* How is ... ?</li> <li>* When did _____ happen?</li> <li>* How would you explain ... ?</li> <li>* How would you describe ... ?</li> <li>* Can you recall ... ?</li> <li>* Can you select ... ?</li> <li>* Can you list the three ... ?</li> <li>* Who was ... ?</li> </ul>																			
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<b>Level I - Knowledge</b>																						

**Level II**

**Comprehension:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions and stating main ideas.

**Key Words:** compare contrast demonstrate interpret explain  
 extend illustrate infer outline relate  
 rephrase translate summarize show classify

**Questions:**

- \* How would you classify the type of ... ?
- \* How would you compare ... ? contrast ... ?
- \* Will you state or interpret in your own words ... ?
- \* How would you rephrase the meaning ... ?
- \* What facts or ideas show ... ?
- \* What is the main idea of ... ?
- \* Which statements support ... ?
- \* Can you explain what is happening ... ? what is meant ... ?
- \* What can you say about ... ?
- \* Which is the best answer ... ?
- \* How would you summarize ... ?

**Level II - Comprehension****Level III**

**Application:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.

**Key Words:** apply build choose  
 construct develop interview  
 make use of organize experiment with  
 plan select solve  
 utilize model identify

**Questions:**

- \* How would you use ... ?
- \* What examples can you find to ... ?
- \* How would you solve \_\_\_\_\_ using what you've learned ... ?
- \* How would you organize \_\_\_\_\_ to show ... ?
- \* How would you show your understanding of ... ?
- \* What approach would you use to ... ?
- \* How would you apply what you learned to develop ... ?
- \* What other way would you plan to ... ?
- \* What would result if ... ?
- \* Can you make use of the facts to ... ?
- \* What elements would you choose to change ... ?
- \* What facts would you select to show ... ?
- \* What questions would you ask in an interview with ... ?

**Level III - Application**

### Level IV

**Analysis:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.

<b>Key Words:</b>	analyze	categorize	classify
	compare	contrast	discover
	dissect	divide	examine
	inspect	simplify	survey
	take part in	test for	distinguish
	list	distinction	theme
	relationships	function	motive
	inference	assumption	conclusion

**Questions:**

- \* What are the parts or features of ... ?
- \* How is \_\_\_\_\_ related to ... ?
- \* Why do you think ... ?
- \* What is the theme ... ?
- \* What motive is there ... ?
- \* Can you list the parts ... ?
- \* What inference can you make ... ?
- \* What conclusions can you draw ... ?
- \* How would you classify ... ?
- \* How would you categorize ... ?
- \* Can you identify the different parts ... ?
- \* What evidence can you find ... ?
- \* What is the relationship between ... ?
- \* Can you make a distinction between ... ?
- \* What is the function of ... ?
- \* What ideas justify ... ?

### Level IV - Analysis

### Level V

**Synthesis:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.

<b>Key Words:</b>	build	choose	combine
	compile	compose	construct
	create	design	develop
	estimate	formulate	imagine
	invent	make up	originate
	plan	predict	propose
	solve	solution	suppose
	discuss	modify	change
	original	improve	adapt
	minimize	maximize	delete
	theorize	elaborate	test
	improve	happen	change

**Questions:**

- \* What changes would you make to solve ... ?
- \* How would you improve ... ?
- \* What would happen if ... ?
- \* Can you elaborate on the reason ... ?
- \* Can you propose an alternative ... ?
- \* Can you invent ... ?
- \* How would you adapt \_\_\_\_\_ to create a different ... ?
- \* How could you change (modify) the plot (plan) ... ?
- \* What could be done to minimize (maximize) ... ?
- \* What way would you design ... ?
- \* What could be combined to improve (change) ... ?
- \* Suppose you could \_\_\_\_\_ what would you do ... ?
- \* How would you test ... ?
- \* Can you formulate a theory for ... ?
- \* Can you predict the outcome if ... ?
- \* How would you estimate the results for ... ?
- \* What facts can you compile ... ?
- \* Can you construct a model that would change ... ?
- \* Can you think of an original way for the ... ?

### Level V - Synthesis

### Level VI

**Evaluation:** Present and defend opinions by making judgments about information, validity of ideas or quality of work based on a set of criteria.

<b>Key Words:</b>	award	choose	conclude
	criticize	decide	defend
	determine	dispute	evaluate
	judge	justify	measure
	compare	mark	rate
	recommend	rule on	select
	agree	appraise	prioritize
	opinion	interpret	explain
	support	importance	criteria
	prove	disprove	assess
	influence	perceive	value
	estimate	influence	deduct

**Questions:**

- \* Do you agree with the action ... ? with the outcome ... ?
- \* What is your opinion of ... ?
- \* How would you prove ... ? disprove ... ?
- \* Can you assess the value or importance of ... ?
- \* Would it be better if ... ?
- \* Why did they (the character) choose ... ?
- \* What would you recommend ... ?
- \* How would you rate the ... ?
- \* What would you cite to defend the actions ... ?
- \* How would you evaluate ... ?
- \* How could you determine ... ?
- \* What choice would you have made ... ?
- \* What would you select ... ?
- \* How would you prioritize ... ?
- \* What judgment would you make about ... ?
- \* Based on what you know, how would you explain ... ?
- \* What information would you use to support the view ... ?
- \* How would you justify ... ?
- \* What data was used to make the conclusion ... ?
- \* Why was it better that ... ?
- \* How would you prioritize the facts ... ?
- \* How would you compare the ideas ... ? people ... ?

### Level VI - Evaluation

**LANGUAGE ARTS  
EIGHTH GRADE  
Reading/Grammar**

**Content Standards and Objectives  
Instructional Collection  
NHA Library Media Centers  
The Shurley Method  
Why The Shurley Method?  
The Shurley Method Assessment**



# Middle School Language Arts Standards and Grade Level Benchmarks

## I. MEANING AND COMMUNICATION

**Content Standard 1: All students will read and comprehend general and technical material.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Use reading for multiple purposes, such as enjoyment, clarifying information, and learning complex procedures.	X	
2. Read with developing fluency a variety of texts, such as short stories, novels, poetry, plays, textbooks, manuals, and periodicals.	X	
3. Employ multiple strategies to construct meaning, such as generating questions, studying vocabulary, analyzing mood and tone, recognizing how authors use information, generalizing ideas, matching form to content, and developing reference skills.	X	X
4. Employ multiple strategies to recognize words as they construct meaning, including the use of context clues, word roots and affixes, and syntax.	X	X
5. Respond to a variety of oral, visual, written, and electronic texts, by making connections to their personal lives and the lives of others.	X	

**Content Standard 2: All students will demonstrate the ability to write clear and grammatically correct sentences, paragraphs, and compositions.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Write fluently for multiple purposes to produce compositions, such as personal narratives, persuasive essays, lab reports, and poetry.	X	X
2. Recognize and use authors' techniques that convey meaning and build empathy with readers when composing their own texts. Examples include appeals to reason and emotion, use of figurative language, and grammatical conventions which assist audience comprehension.	X	X
3. Plan and draft texts, and revise and edit their own writing, and help others revise and edit their texts in such areas as content, perspective and effect.	X	X
4. Select and use appropriate language conventions when editing text. Examples include various grammatical constructions, subject-verb agreement, punctuation, and spelling.	X	X

**Content Standard 3: All students will focus on meaning and communication as they listen, speak, view, read, and write in personal, social, occupational, and civic contexts.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Integrate listening, viewing, speaking, reading, and writing skills for multiple purposes and in varied contexts. An example is using all the language arts to prepare and present a unit project on a career exploration.	X	
2. Begin to implement strategies to regulate effects of variables of the communication process. An example is selecting a format for the message to influence the receiver's response.		X
3. Read and write fluently, speak confidently, listen and interact appropriately, view critically, and represent creatively. Examples include reporting formally to an audience, debating issues, and interviewing members of the public.	X	X
4. Practice verbal and nonverbal strategies that enhance understanding of spoken messages and promote effective listening behaviors. Examples include altering inflection, volume, and rate, using evidence, and reasoning.		X
5. Select appropriate strategies to construct meaning while reading, listening to, viewing, or creating texts. Examples include generating relevant questions, studying vocabulary, analyzing mood and tone, recognizing how authors and speakers use information, and matching form to content.		X
6. Determine the meaning of unfamiliar words and concepts in oral, visual, and written texts by using a variety of resources, such as semantic and structural features, prior knowledge, reference materials, and electronic sources.		X
7. Recognize and use varied techniques to construct text, convey meaning, and express feelings to influence an audience. Examples include identification which characters and multiple points of view.		X
8. Express their responses and make connections between oral, visual, written, and electronic texts, and their own lives.		X

**II. LANGUAGE**

**Content Standard 4: All students will use the English language effectively.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Compare and contrast spoken, written, and visual language patterns used in their communication contexts, such as community activities, discussions, mathematics and science classes, and the workplace.	X	
2. Investigate the origins of language patterns and vocabularies and their impact on meaning in formal and informal situations. An example is comparing language in a business letter to language in a friendly letter.		X
3. Investigate idiomatic phrases and word origins and how they have contributed to contemporary meaning.	X	
4. Demonstrate how communication is affected by connotation and denotation and why one particular word is more effective or appropriate than others in a given context.	X	
5. Recognize and use levels of discourse appropriate for varied contexts, purposes, and audiences, including terminology specific to a particular field. Examples include community building, an explanation of a biological concept, comparison of computer programs, commentary on an artistic work, analysis of a fitness program, and classroom debates on political issues.		

# Middle School Language Arts Standards and Grade Level Benchmarks

## III. LITERATURE

**Content Standard 5: All students will read and analyze a wide variety of classic and contemporary literature and other texts to seek information, ideas, enjoyment, and understanding of their individuality, our common heritage and common humanity, and the rich diversity in our society.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Select, read, listen to, view, and respond thoughtfully to both classic and contemporary texts recognized for quality and literary merit.	X	
2. Describe and discuss shared issues in the human experiences that appear in literature and other texts from around the world. Examples include quests for happiness and service to others.	X	
3. Identify and discuss how the tensions among characters, communities, themes, and issues in literature and other texts are related to one's own experience.	X	
4. Investigate and demonstrate understanding of the cultural and historical contexts of the themes, issues, and our common heritage as depicted in literature and other texts.	X	
5. Investigate through literature and other texts various examples of distortion and stereotypes. Examples include those associated with gender, race, culture, age, class, religion, and handicapping conditions.	X	

## IV. VOICE

**Content Standard 6: All students will learn to communicate information accurately and effectively and demonstrate their expressive abilities by creating oral, written, and visual texts that enlighten and engage an audience.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Analyze their use of elements of effective communication that impact their relationships in their schools, families, and communities. Examples include use of pauses, suspense, and elaboration.		X
2. Demonstrate their ability to use different voices in oral and written communication to persuade, inform, entertain, and inspire their audiences.		X
3. Compare and contrast the style and characteristics of individual authors, speakers and illustrators and how they shape text and influence their audiences' expectations	X	X
4. Document and enhance a developing voice through multiple media. Examples include reflections for their portfolios, audio and video tapes, and submissions for publications	X	X

**V. SKILLS AND PROCESSES**

**Content Standard 7: All students will demonstrate, analyze, and reflect upon the skills and processes used to communicate through listening, speaking, viewing, reading, and writing.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Use a combination of strategies when encountering unfamiliar texts while constructing meaning. Examples include generating questions, studying vocabulary, analyzing mood and tone, recognizing how creators of text use and represent information, and matching form to content.	X	X
2. Monitor their progress while using a variety of strategies to overcome difficulties when constructing and conveying meaning, and develop strategies to deal with new communication needs.	X	X
3. Reflect on their developing literacy, set learning goals, and evaluate their progress.	X	
4. Demonstrate a variety of strategies for planning, drafting, revising, and editing several different forms of text for specific purposes. Examples include persuading a particular audience to take action and capturing feelings through poetry.	X	X

**VI. GENRE AND CRAFT OF LANGUAGE**

**Content Standard 8: All students will explore and use the characteristics of different types of texts, aesthetic elements, and mechanics -- including text structure, figurative and descriptivelanguage, spelling, punctuation, and grammar -- to construct and convey meaning.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Select and use mechanics that enhance and clarify understanding. Examples include paragraphing, organizational patterns, variety in sentence structure, appropriate punctuation, grammatical constructions, conventional spelling, and the use of connective devices, such as previews and reviews.	X	
2. Describe and use characteristics of various narrative genre and elements of narrative technique to convey ideas and perspectives. Examples include foreshadowing and flashback in poetry, science fiction, short stories, and novels.	X	
3. Describe and use characteristics of various informational genre (e.g., biographies, newspapers, brochures, and persuasive arguments and essays) and elements of expository text structure (e.g., multiple patterns of organization, relational links, and central purposes) to convey ideas.	X	
4. Identify and use aspects of the craft of the speaker, writer, and illustrator to formulate and express their ideas artistically. Examples include color and composition, flashback, multi-dimensional characters, pacing, appropriate use of details, strong verbs, language that inspires, and effective leads.	X	
5. Explain how the characteristics of various oral, visual, and written texts (e.g., videos, hypertext, glossaries, textbooks, and speeches) and the textual aids they employ (e.g., subheadings/titles, charts, and indexes)are used to convey meaning.	X	

# Middle School Language Arts Standards and Grade Level Benchmarks

## VII. DEPTH OF UNDERSTANDING

**Content Standard 9: All students will demonstrate understanding of the complexity of enduring issues and recurring problems by making connections and generating themes within and across texts.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Explore and reflect on universal themes and substantive issues from oral, visual, and written texts. Examples include coming of age, rights and responsibilities, group and individual roles, conflict and cooperation, creativity, and resourcefulness.	X	
2. Synthesize content from multiple texts representing varied perspectives in order to formulate principles and generalizations.	X	
3. Develop a thesis using key concepts, supporting evidence, and logical argument.	X	X

## VII. IDEAS IN ACTION

**Content Standard 10: All students will apply knowledge, ideas, and issues drawn from texts to their lives and the lives of others.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Analyze themes and central ideas in literature and other texts in relation to issues in their own lives.	X	
2. Perform the daily functions of a literary individual. Examples include acquiring information from multiple sources and then evaluating, organizing, and communicating it in various contexts.	X	X
3. Use oral, written, and visual texts to identify and research issues of importance that confront adolescents, their community, their nation, and the world. Examples include using research findings to organize and create texts to persuade others to take a particular position or to alter their course of action with regard to a particular school/community issue or problem.	X	X

## VIII. INQUIRY AND RESEARCH

**Content Standard 11: All students will define and investigate important issues and problems using a variety of resources, including technology, to explore and create texts.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Generate questions about important issues that affect them or topics about which they are curious; narrow the questions to a clear focus; and create a thesis or investigating a particular question or topic. Examples include knowledgeable people, field trips, tables of contents, indexes, glossaries, icons/headings, hypertext, storage addresses, CD-ROM/laser disks, electronic mail, and library catalogue databases.	X	X
3. Organize and analyze information to draw conclusions and implications based on their investigation of an issue or problem.	X	X
4. Use different means of developing and presenting conclusions based on the investigation of an issue or problem to an identified audience. Examples include election ballots, hypertext, and magazines and booklets including graphics.	X	X

# Middle School Language Arts Standards and Grade Level Benchmarks

## IX. CRITICAL STANDARDS

**Content Standard 12: All students will develop and apply personal, shared, and academic criteria for the enjoyment, appreciation, and evaluation of their own and other's oral, written, and visual texts.**

Objective	Lessons	
	Core Knldg	Shurley Method
1. Differentiate sets of standards for individual use according to the purpose of the communication context. An example is maintaining different sets of individual standards when creating texts for formal and informal situations.	X	
2. Demonstrate understanding of individual, shared, and academic standards used for different purposes and contexts.	X	
3. Develop critical standards based on aesthetic qualities, and use them to explain choices in reading, writing, speaking, listening, viewing, and representing.	X	X
4. Create a collection of personal work based on individual, shared, and academic standards, reflecting on the merit of each selection.	X	X
5. Refine their own standards to evaluate personal and public communications within a responsible and ethical system for the expression of ideas.	X	

1  
Eighth Grade Instructional Collection  
Core Knowledge

POETRY

Buffalo Bill's (Lea Cummings)  
Chicago (Carl Sandburg)  
Do Not Go Gentle into That Good Night (Dylan Thomas)  
How do I love thee? (Elizabeth Barrett Browning)  
How They Brought the Good News From Ghent to Aix  
(Robert Browning)  
I dwell in possibility; Apparently with no surprise  
(Emily Dickinson)  
The Lake Isle of Innisfree (William B. Yeats)  
Lucy Gray (or Solitude); My Heart Leaps Up  
(William Wordsworth)  
Mending Wall; the Gift Outright (Robert Frost)  
Mr. Flood's Party (Edward Arlington Robinson)  
Polonius's speech from Hamlet, "Neither a borrower nor a lender  
be..."  
Ozymandias (Percy Bysshe Shelley)  
Sonnet 18, "Shall I compare thee..." (William Shakespeare)

SHORT STORIES:

The Bet (Anton Chekov)  
Dr. Heidegger's Experiment  
(Nathaniel Hawthorne)  
God Sees the Truth But Waits (Leo Tolstoy)  
An Honest Thief (Fyodor Dostoyevsky)  
The Open Boat (Stephen Crane)

ESSAYS/SPEECHES:

"Ask not what your country can do for you"  
(John F. Kennedy's Inaugural Add.)  
"I have a dream"; "Letter from Birmingham  
Jail" (Martin Luther King, Jr.)  
"Death of a Pig" (E.B. White)  
"The Marginal World" (Rachel Carson)

NOVELS:

Animal Farm (George Orwell)  
The Good Earth (Pearl S. Buck)

AUTOBIOGRAPHY:

Selections from *I Know Why the Caged Bird Sings*  
(Maya Angelou)

DRAMA:

As You Like It  
(William Shakespeare)

Notes/Comments:

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## National Heritage Academies Library Media Centers

The mission of the library media program at National Heritage Academies is to provide the students and educators with equitable access to information, ideas, and learning/teaching tools. The library media centers at National Heritage Academies are a growing resource of information for the staff and students. Resources include books, videos, periodicals, online reference resources, traveling projection systems and various teacher workbooks and posters. Many schools include video cameras, digital cameras and other technology for circulation. Our collections are developed to support the curriculum and provide students with literature. An OPAC system (online card catalog) is available at each computer terminal in each school building. Searching for materials can be done from the classroom as well as the library media center.

In order to support the curriculum and the activities taking place at each individual school, students may use the Library Media Center for research, study, reading, browsing, fact-finding and any other educational purpose. Students are encouraged to visit the library media center during school hours--either individually or as a class. Each building will prepare a schedule for weekly class visits and/or individually arranged class visits.

Materials are checked out to students for one week. If a student wishes to renew a book, he/she may do so at any time. It is important for the books to be returned on time and in good condition.

If a book is lost or damaged, the student is held responsible for that book. The student will be notified of the cost of the book and be expected to reimburse the school for the damaged or unreturned property. The amount charged will be the original purchase price of the book. If books are not returned or paid for, report cards may be held.

Accelerated Reader (AR) is a motivational reading program that is networked throughout National Heritage Academies. The program deals with individual reading levels, reading comprehension, and assessment. It involves reading books, taking quizzes on the computer and the earning of points. Many of our schools have an established school wide-program that is run by the teachers and/or library staff. In other schools, teachers use AR individually with their classes. The staff and/or administration at each school determine how this program is facilitated.

Teachers and staff are welcome at any time in the library media center to browse, search, and check out materials. They are encouraged to contact the librarian with any special requests for materials. Librarians are available to meet with teachers for planning purposes or curriculum needs.

The library media center at a National Heritage Academies school strives to be a fountain of information for growing, learning, and fun. Welcome!

## SHURLEY GRAMMAR METHOD

The approach used by The Shurley Method is active learning, with students physically and cognitively engaged in the learning process. Success in learning Shurley English is predicated on the reinforcement of language skills. Students memorize rhyming jingles for each of the parts of speech. In unison, they chant these jingles in a kind of language symphony until they have internalized the concepts of nouns and verbs. A Shurley classroom is one of energized learning, where students teach as well as learn. They move back and forth from group activities to independent learning exercises, from a mastery of grammar skills to creative writing exercise. In fact, students, almost without exception, beg for more class time to write.

Despite the fact that memorization and repetition have not been in vogue in recent years in American schools, they are fundamental to the success of the Shurley Method. Rarely does a Shurley student return to classes at the start of a new school year needing to be retaught concepts he/she mastered during the previous school year. The retention is permanent.

The Shurley Program provides students with two important ingredients for success: a love of the English language and the ability to use the English language correctly with ease and confidence.

## WHY THE SHURLEY METHOD?

- *The Shurley Method* is the end result of twenty-five years of research. Actual classroom situations and the learning needs of students were used to develop this exciting English program.
- *The Shurley Method* never teaches concepts in isolation. A concrete set of questions about each word in a sentence is used to teach students how all the parts of a sentence fit together. Students always have a clear picture of how to write complete sentences.
- Students are constantly exposed to “see it, hear it, say it, do it,” activities that meet the visual, auditory, and kinesthetic learning types of students.
- *The Shurley Method* successfully teaches language skills to students with different learning abilities and to students who learn English as a second language.
- *The Shurley Method* uses repetition, fun and student-teacher interaction to help students learn difficult English skills. The teacher models each new step in *The Shurley Method* for the students. Then the students actively participate with the teacher as the steps are practiced.
- *The Shurley Method* provides enough repetition to master each concept taught. Lessons include daily practice of old skills while new skills are being added.
- The students are taught how to merge a strong skill foundation with the writing process. As a result, teachers can spend less time going over beginning grammar and editing skills and more time introducing and enhancing advanced grammar and writing skills.
- Students’ grammar and writing skills are used automatically with dependable results. This leads to higher level thinking skills because the students are stimulated to learn and use their own thought processes to solve difficult language problems.
- The most important effect of *The Shurley Method* on students may not be their increased grasp of language and improved grammar and writing skills. Instead, the greatest impact may be the students’ heightened self-confidence and self-esteem. Not only do the students gain confidence in English, but they carry this improved attitude into other subject areas as well.

## THE SHURLEY METHOD ASSESSMENT

### 3-Day Rotation Schedule Assessment

#### **Day 1 – Teach**

**(No test will be given to students on Day 1.)**

1. Vocabulary and Definition Time
2. Introduce the new grammar concept and classify sentences orally.
3. Leave classified sentences on the board or transparency for Oral Skill Builder Check.
4. Write a Practice Sentence and an Improved Sentence with your class.

#### **Day 2 – Review, Teach, and Test**

**(Tests will be given to students. You will use one test sheet every 3 days.)**

1. Vocabulary and Definition Time.
  2. Classify same sentences orally (again).
  3. Teach the other English concepts that will be tested.
  4. Erase the board or remove the transparency and give the student worksheet as a test.
- Students are tested on the same sentences that they have classified orally together. This helps students gain the confidence to work with many skills independently and helps weak readers concentrate on learning English skills without struggling with reading vocabulary.

#### **Day 3 – Teach and Check**

**(Hand the tests back)**

1. Vocabulary and Definition Time.
2. Classify same sentences orally (again).
3. Leave classified sentences on the board or transparency as a visual aid when checking student tests.
4. Discuss mistakes and how to improve.

### 2-Day Rotation Schedule (Skip Day 1 – Oral Day)

#### **Day 2 – Review, Teach, and Test**

**(Tests will be given to students. You will use one test sheet every 3 days.)**

1. Review grammar by classifying sentences.
2. Teach the other English concepts that will be tested.
3. Give students the worksheet as a test.

#### **Day 3 – Review and Check**

1. Review grammar by classifying sentences.
2. Hand test back. Discuss mistakes and how to improve.

### Checking Options

**Teacher Graded:** Select one or two sentences from the top section and several items from the bottom section to check for a grade. Then have students check the rest of the sheet with you as a practice exercise. Use a teacher-directed word-by-word check. Students focus not only on mistakes but also on correct responses. This will show them the mistakes they made, and they can use this knowledge to do better on the next test.

**Student Graded:** Train double checkers to help weak checkers and to grade absent students' papers.

**LANGUAGE ARTS  
EIGHTH GRADE**

**Writing**

**Collins Writing Program  
Philosophy: The Teaching of Writing  
Collins Writing Strategies  
Teacher Resources  
Assessing Your Current Writing Program**



## COLLINS WRITING PROGRAM

### Philosophy: The Teaching of Writing in NHA Schools

#### ON THE TEACHING OF WRITERS:

A belief system about how children develop as language users from birth through adulthood and what teachers should do in their classrooms to foster that growth is essential to any writing curriculum. Moreover, to provide integrated and meaningful instruction and accountability, the writing program must be organized around a system for managing the writing process. The following is meant to be a guide to teaching "writers" in the classroom.

#### 1. Children as language users:

National Heritage Academies believes that children come to school with an innate curiosity about writing and a desire for meaningful, real-world communication, and that writing is one of the most complex intellectual tasks they will need to accomplish. Further, children develop writing skills in a manner that mirrors the way they learn to talk. Teachers, then, teach "writers" rather than "writing," and children become writers by the very act of writing itself. We believe that teachers help children view and define themselves as thinkers and writers by involving them with the real occurrences of their minds, hearts and world and that writing enhances the learning process of any subject at any level.

#### 2. Classroom culture of active literacy:

What teachers *do* in the classroom positively impacts students' development as writers more often than what teachers *say* in the classroom. The conditions that promote the development of writers are the same as those that facilitate learning to talk:

- *Immersion:* creating a language-rich and print-rich environment
- *Demonstration:* modeling of writing in the classroom by the teacher
- *Expectation:* subtly communicating to children that they will learn to write
- *Responsibility:* giving students opportunities to be responsible for their own learning
- *Approximation:* encouraging and respecting children's writing efforts
- *Employment:* making time and opportunities for writing
- *Feedback:* allowing patience with the growth process

National Heritage Academies wants its classrooms to be places where children come expecting to write each day with the knowledge that their efforts will be valued, supported and respected.

#### 3. A skill for thinking across the curriculum:

National Heritage Academies believes that students should have frequent and varied opportunities to write in *all* content areas. Writing is an aid to thinking and organizing ideas across the curriculum rather than merely a subset of the language arts curriculum. It is a balance of process (how people communicate) and product (what they communicate).

#### 4. **Managing and evaluating a program for writing:**

Because we understand that writing is a necessary skill for effective communication and expression, and realizing that people learn to write by writing, there must be a workable system of instruction. That system must be coupled with an assessment system to measure levels of achievement in both the student and the teacher.

National Heritage Academies has adopted **The Collins Cumulative Writing Folder Program** to support teachers in building an effective and experiential writing program within their classrooms and the school. The Collins Writing Program provides schools with a writing program— a unified set of techniques and expectations about student writing— that can be developed and reinforced over a period of years, as well as a way to measure levels of achievement in both students and teachers. It involves:

- Integrating writing across the curriculum using Five Types of Writing
- (noted on the following two pages)
- Encouraging a balance of process and product
- Encouraging ownership through a student-centered program of instruction
- Ensuring the development of critical writing and thinking skills
- Making the program student-centered
- Involving frequent writing opportunities
- Affording a practical and manageable program for both teacher and student.

The Cumulative Writing Folder Program consists of four elements: a writing management system and three teaching strategies. The strategies are:

- Oral reading
- Focus correcting
- Using past papers to teach new skills

The Program has been successfully used in special education, with the gifted and talented, and in English as a second language programs. Each element reinforces the others.

Realizing each teacher's need to understand instructional expectations as well as to be supported in those expectations, a workable "Scope and Sequence for the Teaching of Writers" will be forthcoming.

A list of resources from the Collins Education Associates follows The Collins Writing Strategies.

## Collins Writing Strategies

**Type One: Writing that has no correct answer – or, if there is a correct answer, it's okay to be wrong**

Purpose: To capture ideas, questions, reactions

Evaluation: A check + or -, 10 pts. or 0 pts., a “smiley face” or no “smiley face,” a jelly bean or a coffee bean . . . in other words – it's up to you. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line 3. Provide a minimum volume  
2. Always label the type of writing 4. Provide a maximum time limit

Advantages: \*Spontaneous, minimal preparation \*Takes very little class time  
\*Effective thinking stimulus for all \*Promotes writing fluency

**Type Two: Writing that makes a point - has a correct answer**

Purpose: To show that the writer knows something about the topic or has thought about it

Evaluation: Type Two writing is like a quiz; mistakes in content count. Writing style and mechanics do not count – the content counts. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line 3. Provide a maximum time limit  
2. Always label the type of writing 4. Avoid numbering

Advantages: \*Spontaneous, little pre-planning \*Promotes writing fluency  
\*Quick assessment \*Promotes writing in the content areas

**Type Three: Writing that has content and focus correction areas**

Purpose: To produce a single draft that meets the standards set by the focus correction areas (FCA). Type Three writing is read out loud by the author to see if it does three things:

- Completes the assignment
- Sounds correct-easy to read
- **Avoids errors in the focus correction areas**

Evaluation: Evaluation is based solely on FCAs. **“Reasonable best effort”**

Basic Guidelines: 1. Always skip a line 3. Maximum of three focus areas/paper  
2. Always place FCAs in the upper left

Advantages: \*Very efficient \*Ease of evaluation

**Type Four: Writing that has been read out loud and critiqued by another – two drafts**

Purpose:	To produce the best possible work in two drafts. Writer follows the same steps as Type Three, repeats steps with a peer, and produces the best possible second draft that is placed in <b>The Cumulative Writing Folder</b> .	
Evaluation:	Evaluation is based on focus correction areas. <b>“Reasonable best effort”</b>	
Basic Guidelines:	1. Always skip a line 2. Always place FCAs in the upper left	3. Maximum of three focus areas/paper
Advantages:	*Fair, objective evaluations *Provides a systematic, clear, and logical sequence of writing skills	

**Type Five: Writing that can be published and go outside the classroom without explanation or qualification – multiple drafts**

Purpose:	To produce the best writing possible. Writer follows the same steps as Type Four to create a paper void of errors.	
Evaluation:	Type Five writing is usually a major project. It must meet all standard conventions.	
Basic Guidelines:	1. Always skip a line 2. Always label the type of writing in rough drafts	
Advantages:	*Great final product *Real-world standards	*Promulgates full range of skills

It has been our experience that many teachers, especially after a full day workshop with opportunities for “hands-on” practice, can effectively implement many of our ideas in their own classrooms.

However, most teacher training has failed miserably because it tends to be “hit and run” in nature. A basic assumption of our work is that writing instruction will be most effective when it is supported by a program— a unified set of teaching techniques and expectations about student writing that are developed and reinforced over a period of years. This kind of program development takes time and commitment. We believe that writing instruction must also be evaluated on a regular basis to provide teachers and students with clear and achievable goals from one year to the next. Therefore we have developed an extensive variety of program development services:

**Examples of our teacher support and program development service sessions:**

- \* demonstration lessons
- \* establishing an in-house evaluation model
- \* individual department/grade level sessions
- \* developing strategies for state assessment tests
- \* practice developing great writing assignments
- \* practice developing appropriate FCAs

Developed by Mark E. Dressel, Collins Education Associate 616.361.1839

## COLLINS WRITING - TEACHER RESOURCES:

### Center for Effective Communication-Collins Education Associates LLC:

The following publications may be found on the *AcademyLink Purchase Order form* for **The Network (formerly Collins)** and can be purchased through your building principal (textbook budget). It is recommended that each teacher have the following:

1. **Cumulative Writing Folders** - for each student in grades 1-8 for use in helping to manage the classroom writing program. Teachers of grades 1-3 should order the **Primary Cumulative Writing Folders**. Teachers of kindergarten may want to develop their own "folder system" for writing management.
2. **Developing an Effective Writing Program for the Elementary Grades** by Gary Chadwell.
3. Middle School Teachers: **Developing Writing and Thinking Skills Across the Curriculum** by Gary Chadwell.

### Additional Recommended Resources:

1. Frank, Marjorie. **If You're Trying To Teach Kids How To Write...you've gotta have this book!** Incentive Publications, Inc., Nashville, Tennessee. 1979. (ISBN: 0-86530-317-7). Can be purchased through most bookstores. All Grades.
2. Areglado, Nancy and Dill, Mary. **Let's Write: A Practical Guide to Teaching Writing in the Early Grades— K-2.** Scholastic Professional Books, New York. 1997, (ISBN: 0-590-93102-4). Can be purchased through teacher stores or most bookstores. Early Grades.
3. Butler, Andrea and Turbill, Jan. **Towards a Reading-Writing Classroom.** Primary English Teaching Association, NSW, Australia: Heinemann, 1984. (ISBN: 0-435-08461-5).
4. Arwell, Nancie. **Coming to Know: Writing to Learn in the Intermediate Grades.** Portsmouth, NH: Heinemann, 1990. Presents many ways to use writing in content area study, including learning logs and research projects in every subject.
5. Calkins, Lucy. **The Art of Teaching Writing.** Portsmouth, NH: Heinemann, 1994.
6. Lane, Barry. **After 'The End': Teaching and Learning Creative Revision.** Portsmouth, NH: Heinemann, 1993.

## **Assessing Your Current Writing Program**

You already have a writing program in place in your classroom, one shaped by your beliefs and attitudes about writing instruction. It's driven by techniques and strategies you use with your students, and it's organized around a system you use for managing the writing process. The survey that follows will help you assess your current writing program by helping to identify what you emphasize most and least in your own classroom. It will give you a snapshot of your current writing program.

After you complete this survey, your findings will enable you to reaffirm, challenge, or recalibrate some of your assumptions and help you make strategic decisions about ways to improve your writing program.

### **Writing Program Assessment Survey For Elementary Grades**

Instructions: For each of the activities that follow, give a rating of 0-5 that most accurately describes how often you do the activity during a year. This self-assessment will be most valuable if you are candid in your estimates. Try not to overestimate; rather than rating the items based on how much you like them, rate them on how often you actually do them.

- 0 - Do not do
- 1 - Infrequently (one to three times a year)
- 2 - Occasionally (four to six times a year)
- 3 - Regularly (once a month)
- 4 - Frequently (twice a month)
- 5 - Very frequently (once a week or more)

## PROGRAM VALUES

- \_\_\_\_\_ 1. Give students low-risk writing opportunities such as free writing or journal writing.
- \_\_\_\_\_ 2. Take overt steps, such as writing along with your students, to create a classroom culture of active literacy.
- \_\_\_\_\_ 3. Provide frequent opportunities for students to write in all content areas.

## PREWRITING ACTIVITIES

- \_\_\_\_\_ 4. Involve students in writing projects based on their personal experiences, reading experiences, or class discussions.
- \_\_\_\_\_ 5. Engage students in discussions and activities that clarify writing projects, generate ideas, and help in planning and organizing writing.
- \_\_\_\_\_ 6. Provide models, including examples of other students' writing, to help guide your students' writing efforts.

## DRAFTING ACTIVITIES

- \_\_\_\_\_ 7. Provide opportunities for students to write in many forms (narratives, letters, reports, poems, and so on).
- \_\_\_\_\_ 8. Provide opportunities for students to write for various *purposes* (to inform, entertain, persuade, explain, and so on) and various *audiences* (parents, peers, authors, public officials, and others).
- \_\_\_\_\_ 9.\* Provide students with specific criteria that they can use to guide their thinking and writing and that you use to provide feedback on the writing project.

## REVISING AND EDITING ACTIVITIES

- \_\_\_\_\_ 10. Model revising strategies (elaborating, sentence combining, eliminating unnecessary words or phrases, checking for sentence variety, and so on) that help students review and improve their writing.
- \_\_\_\_\_ 11. Teach grammar and mechanical skills in relation to students' current writing experiences.
- \_\_\_\_\_ 12. Encourage students to proofread their own work (checking for punctuation, capitalization, and spelling).
- \_\_\_\_\_ 13. Encourage students to peer-edit each other's papers before they are finalized.
- \_\_\_\_\_ 14. Involve students in maintaining a portfolio of their writing that they can review and use to develop new writing skills.

## SHARING ACTIVITIES

- \_\_\_\_\_ 15.\* Encourage students to read their work out loud – to themselves and others – as part of the writing process.
- \_\_\_\_\_ 16. Display or "publish" examples of high-quality writing.
- \_\_\_\_\_ 17. Give writers positive, specific feedback on their work.
- \_\_\_\_\_ 18. Conduct individual writing conferences with students.

\_\_\_\_\_ **Total Score**

One of the Critical Four strategies

## Interpreting Your Score

*What does the survey tell me?* Even before you total your score, a look at your survey provides some insights into your writing program. Since time is a valuable commodity in the classroom, your responses show you how you are using this scarce resource. The strategies you have rated as 4 or 5 are the “cornerstones” of your writing program because you are giving significant time to them. These are the strategies that drive your writing program.

The survey also shows you areas where you are giving little emphasis. These areas may not be emphasized in your classroom for any number of reasons. You may feel that they are not critical to your students' development as writers or that they are not appropriate for your students. Other low-rated strategies may be ones that you value but have not yet been able to effectively incorporate into your teaching.

*What is a good score?* Obviously, as your score approaches 90 it means that you have rated virtually all of the 18 items at 4 or 5. Although these 18 items represent an excellent overview of effective writing practice, you may ask whether it is necessary to use all of them with great frequency to have an effective writing program. Your question is a common one that subsumes other, related questions: Can I do all these things regularly with the number of students I have? With my time constraints? With my curriculum demands?

*So, what's the lowest score I could get and still have an effective writing program?* A score in the 54-72 range is the basis for an effective writing program. A score higher than 72 would indicate that writing is already a prominent component of your classroom culture. A score lower than 54 (18 items multiplied by an average score of 3) could indicate that writing is not done often enough or that your writing instruction does not provide the kind of consistent focus students need to improve as writers. The strategies on this survey have little impact on improving students' writing when used randomly.

*How do I use the survey to improve my writing program?* In addition to looking at your overall score, you might want to look at your scores in the five sections of the survey – Program Values, Prewriting Activities, Drafting Activities, Revising and Editing Activities, and Sharing Activities. Do your scores in one or more sections seem noticeably higher or lower than scores in other sections?

In reviewing your scores in the five sections, don't overlook the fact that some of the strategies have benefits in several aspects of the writing process – not only the one in which it is categorized in the survey. A good example is item 15 (*Encourage students to read their work out loud – to themselves and others – as part of the writing process*) which is a strategy appropriate for drafting, revising and editing, as well as sharing. This is a critical strategy for young writers because it focuses attention on the overall quality of the written message rather than on the individual words. Its use is also beneficial in several stages of the writing process.

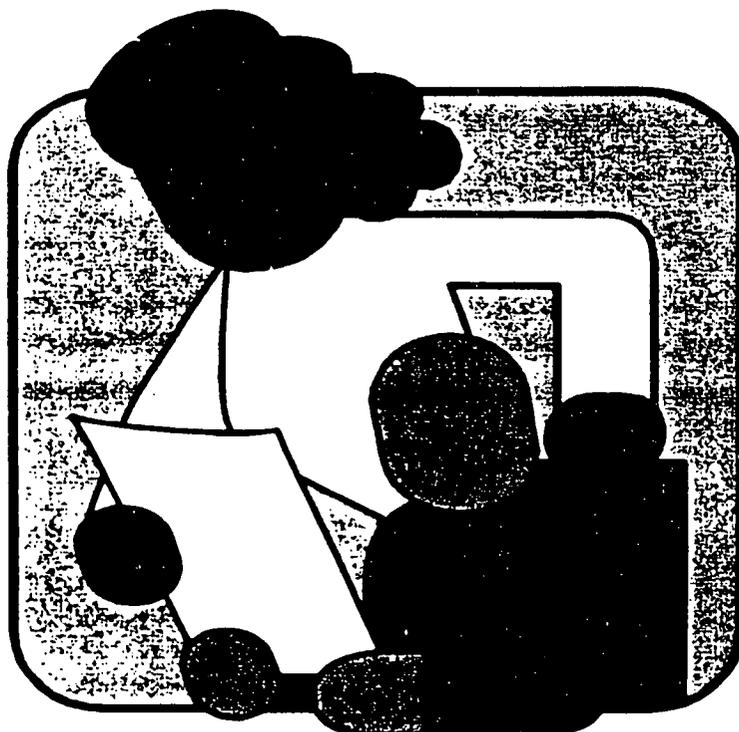
One way to use this survey is to consider carefully your scores on items 3, 9, 14, and 15 – the Critical Four strategies. I have identified these as the Critical Four strategies because high scores in these areas ensure that your writing program is headed in the right direction. It means that students are writing often, you are focusing your writing instruction, and you are showing students ways to be effective resources to themselves and others.

Making changes in any of these areas takes thought and effort, so avoid the temptation to change too many things at once. After reviewing your survey, choose two of the strategies that you feel would have the greatest impact on improving your students' writing and work on improving those. They may be two of the Critical Four or others that you think will benefit your students.

You may want to read more about the 18 strategies before you decide where to begin. Chapters 2-6 of this book focus on the strategies from the survey and Action Steps for each one. The remainder of the book looks at ways to use the Critical Four strategies to create an effective writing program for your young writers and provides some suggestions for communicating about your program to parents.

# MATH EIGHTH GRADE

Saxon Math  
Saxon Math Assessment  
Pacing Whole Group Instruction  
Saxon Grade Level Curriculum



## SAXON MATH

*Saxon Math* grew out of a decade of intense classroom interaction with students in which the goal was for students to learn and remember the foundational skills of mathematics. The term “foundational” is appropriate because mathematics, perhaps more than any other subject, is a cognitive structure that builds upon prior learning. The ultimate height and stability of the mathematical structure within each individual are determined by the strength of the foundation. The text, as well as each book that precedes or follows, provides the student with the time and opportunities necessary to build a rock-solid foundation in beginning mathematics. For this to occur it is essential that all practice problems and all problem sets be completed by the students.

### THE SAXON PEDAGOGY

Incremental development, continual review, and frequent, cumulative testing. There are three pillars of Saxon Mathematics.

- Incremental development means that concepts are taught in small, easily understood pieces that are presented in individual lessons over the course of the academic year.
- Once an increment has been taught, it is reviewed daily through worksheets and homework sets—a process called continual review. As concepts grow in complexity, earlier increments are included. Thus, all concepts and skills can be practiced on a daily basis without the homework sets becoming large and unwieldy. Over time, incremental development and continual review foster assimilation, mastery, and complete understanding of concepts and skills.
- Frequent, cumulative testing allows students to prove their mastery of skills before new concepts are introduced. Assessments encompass all concepts and skills that students have practiced.

### SUCCESS WITH SAXON MATHEMATICS

There is considerable evidence from the educational community to suggest why Saxon’s pedagogy of incremental development, continual review, and frequent, cumulative testing should be successful. What follows—support ranging from experimental studies to anecdotal evidence—suggests that this pedagogy is in fact successful.

Studies indicate that Saxon’s Mathematics texts:

- can increase student test scores (Reed 1983; McBee 1984; Sistrunk and Benton 1992); Calvery, Bell, and Wheeler 1993; Rentschler 1994; Mayers 1995; Sanders 1997);
- can benefit students of low and average ability (Klinge and Reed 1984; Johnson and Smith 1987; Calvery, Bell, and Wheeler 1993);
- can lower math anxiety in students (Lafferty 1994);
- may help minority students narrow the math achievement gap (Sistrunk and Benton 1992); and
- are preferred (over traditional texts) by students and faculty (Johnson and Smith 1987 and Nguyen 1994).

One of the most comprehensive studies of the effectiveness of Saxon textbooks was conducted between 1992 and 1994 by the Planning, Research, and Evaluation Department of the Oklahoma City public school system (Ngyuen 1994b). The study encompassed K-5 students in over three hundred classrooms using non-Saxon programs. Analysis of the 1994 ITBS scores for the Saxon students and a comparison group of the non-Saxon students revealed that:

*Overall, the Saxon group scored higher than the comparison group of students in all comparisons. Five of these comparisons were statistically significant ( $p < .01$ ): complete composite, total math, math concepts, problem solving, and reading comprehension. The other four comparisons also favored the Saxon group; however, the differences were not statistically significant: math computation, science, social studies, and total language.*

#### **Comments from teachers and administrators:**

- *"The first four years (using Saxon) my class had the highest scoring on the state ISTEP test in Muncie, which has twelve elementary schools. Last year we were number one in problem solving in the city." Mel Botkin, Retired Teacher, Muncie, IN*
- *"Students are taking more math classes than ever before in the history of the school. In 1989 (before Saxon), we had about 30% of the student body in the math program. Today, almost the entire student body is involved." Larry Cone, Teacher, Muskegon, MI*
- *"I see improvement in retention of skills using Saxon at all levels. Often young people come into eighth grade believing they 'can't do math' and change their minds (after using) Saxon." Cyllinda Rucker, Teacher, Eagleville, MO*
- *"Probably the most exciting thing about using Saxon this year was seeing students develop their ability to apply what they had already learned to new topics. Another tremendous benefit was no longer seeing the blank looks regarding topics covered earlier in the year." Elizabeth A. Moody, Teacher, Hudson, NH*
- *"All seventh-graders were tested before studying Saxon and scored in the range from 8<sup>th</sup> percentile to 97 percentile. Class average was 44<sup>th</sup> percentile. After one year of instruction using Saxon Algebra 1/2, the median score for the same students was 97<sup>th</sup> percentile." Frederick H. Maas, Teacher, Santa Fe, NM*
- *"Our math scores have dramatically improved. All of my teachers love the Saxon materials." Mike Hanke, Principal, Green Bay, WI*
- *"The special education students are catching up. Many no longer qualify for special education after two years of Saxon." Marvin Miles, Teacher, Blackfoot, ID*

#### **Conclusion**

The Saxon pedagogy has its roots in the classroom. It is a method that was developed specifically to improve long-term retention of concepts and skills. For twenty years, and with increasing refinement, the Saxon pedagogy has been applied to a range of subjects and grade levels. Because of its effectiveness and ease of use, tens of thousands of teachers across the United States and abroad have embraced the Saxon methodology, and millions of students have benefited from mathematics instruction based on incremental development, continual review, and cumulative testing.

# SAXON MATH ASSESSMENT

## GENERAL ASSESSMENT

An available test booklet contains two forms of tests for every five lessons. The second test form may be used for make-up testing. Tests should be given about five lessons after the last concept has been taught. Thus Test 1, which covers topics from Lesson 1 through Lesson 5, should be given after Lesson 10. Test 2 should be given after Lesson 15, Test 3 after Lesson 20, and so on. This allows the students time to learn the new topic before being tested on it. Students will make excellent progress if they are able to score 80% or better on the tests. Students who fall below the 80% level should be given remedial attention immediately. Some teachers choose to test every ten lessons using only the even-numbered or odd-numbered tests. This is an acceptable alternative to testing every five lessons.

*Stephen Hake*  
*Temple City, California*

*John Saxon*  
*Norman, Oklahoma*

## PACING WHOLE-GROUP INSTRUCTION

When teaching the Saxon program through whole-group instruction, pacing is key. It is important that each student have the opportunity to complete the entire textbook during the school year. The chart below offers guidance about the number of lessons that should be completed during each grading period.

SAXON PUBLISHING			SCHOOLS USING QUARTER/SEMESTER SYSTEM			
Edition	Title	Total No. Lessons	1st Quarter Lessons	2nd Quarter Lessons	3rd Quarter Lessons	4th Quarter Lessons
2nd	<i>Math 54</i> Lessons and Problem Sets	141	1-35	36-70	71-105	106-141
2nd	<i>Math 54</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 65</i> Lessons and Problem Sets	140	1-35	36-70	71-105	106-140
2nd	<i>Math 65</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 76</i> Lessons and Problem Sets	138	1-35	36-70	71-105	106-138
2nd	<i>Math 76</i> Investigations	6	1	—	2-3	4-6
2nd	<i>Math 76</i> Tests	28	1-6	7-13	14-20	21-28
2nd	<i>Math 87</i> Lesson and Problem Sets	120	1-30	31-60	61-90	91-120
2nd	<i>Math 87</i> Investigations	12	1-3	4-6	7-9	10-12
2nd	<i>Math 87</i> Tests	24	1-5	6-11	12-17	18-Final
2nd	<i>Algebra 1/2</i> Lessons and Problem Sets	123	1-31	32-62	63-93	94-123
2nd	<i>Algebra 1/2</i> Extra Topics *	10	—	—	—	A-J
2nd	<i>Algebra 1/2</i> Tests	31	1-6	7-14	15-22	23-31

For example, at the end of the second quarter *Math 65* students should have completed Lesson 70 and Test 13.

\* These topics are discretionary enrichment units. The ones that are used should be taught in the final term of the academic year so that students will have the information fresh in their minds during standardized tests.



1011

**Saxon Mathematics Curriculum**  
**GRADE: 8 (Algebra 1/2)**

<b>I. PATTERNS, RELATIONSHIPS, AND FUNCTIONS</b>	
<b>Content Standard 1: Students recognize similarities and generalize patterns, use patterns to create models and make predictions, describe the nature of patterns and relationships and construct representations of mathematical relationships (Patterns)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Analyze and generalize mathematical patterns including sequences, series and recursive patterns.	PE: 10-11, 13, 35 TE: 10-11, 13,35
2. Analyze, interpret and translate among representations of patterns including tables, charts, graphs, matrices and vectors.	PE: 6-8, 87-88, 214-215, 238-239, 256-257, 378-380, 382-383, 402-403 TE: 6-8, 87-88, 214-215, 238-239, 256-257, 378-380, 382-383, 402-403
3. Study and employ mathematical models of patterns to make inferences, predictions and decisions.	PE: 259, 333-335, 343-344 TE: 259, 333-335, 343-344
4. Explore patterns (graphic, numeric, etc.) characteristic of families of functions; explore structural patterns within systems of objects, operations or relations.	This objective is addressed in Saxon Algebra 1: <i>An Incremental Development</i>
5. Use patterns and reasoning to solve problems and explore new content.	PE: 104, 108-109, 194-197, 222-223, 227-229, 236-237, 244-245, 280-283 TE: 104, 108-109, 194-197, 222-223, 227-229, 236-237, 244-245, 280-283
<b>Content Standard 2: Students describe the relationships among variables, predict what will happen to one variable as another variable is changed, analyze natural variation and sources of variability, and compare patterns of change (Variability and Change)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Identify and describe the nature of change, and begin to use the more formal language such as rate of change, continuity, limit, distribution and deviation.	PE: 104, 108-109, 173, 186-187, 244-245, 299 TE: 104, 108-109, 173, 186-187, 244-245, 299
2. Develop a mathematical concept of function and recognize that functions display characteristic patterns of change (e.g., linear, quadratic, exponential).	This objective is addressed in Saxon Algebra 1: <i>An Incremental Approach</i>
3. Expand their understanding of function to include non-linear functions, composition of functions, inverses of functions, and piecewise-and recursively-defined functions.	This objective is addressed in Saxon Algebra 1: <i>An Incremental Approach</i>
4. Represent functions using symbolism such as matrices, vectors and functional representation ( $f(x)$ ).	This objective is addressed in Saxon Algebra 1: <i>An Incremental Approach</i>
5. Differentiate and analyze classes of functions including linear, power, quadratic, exponential, circular and trigonometric functions, and realize that many different situations can be modeled by a particular type of function	This objective is addressed in Saxon Algebra 1: <i>An Incremental Approach</i> .
6. Increase their use of functions and mathematical models to solve problems in context	This objective is addressed in Saxon Algebra 1: <i>An Incremental Approach</i>
<b>II. GEOMETRY AND MEASUREMENT</b>	
<b>Content Standard 1: Students develop spatial sense, use shape as an analytic and descriptive tool, identify characteristics and define shapes, identify properties and describe relationships among shapes. (Shape and Shape Relationships)</b>	
1. Use shape to identify plane and solid figures, graphs, loci, functions and data distributions	PE: 87-88, 136-137, 378-380, 390-392 TE: 87-88, 136-137, 378-380, 390-392.
2. Determine necessary and sufficient conditions for the existence of a particular shape and apply those conditions to analyze shapes.	PE: 136-137, 390-392 TE: 136-137, 390-392

3. Use transformational, coordinate or synthetic methods to verify (prove) the generalization they have made about properties of classes of shapes.	This objective is addressed in Saxon <i>Algebra 1: An Incremental Approach</i> .
4. Draw and construct shapes in two and three dimensions and analyze and justify the steps of their constructions.	PE: 390-392 TE: 390-392
5. Study transformations of shapes using isometries, size transformations and coordinate mappings.	PE: 6, 378-379 TE: 6, 378-379
6. Compare and analyze shapes and formally establish the relationships among them, including congruence, similarity, parallelism, perpendicularity and incidence.	PE: 136-137, 349-350, 357-359, 390-392 TE: 136-137, 349-350, 357-359, 390-392
7. Use shape, shape properties and shape relationships to describe the physical world and to solve problems.	The opportunity to address this objective is available on the following pages: PE: 390-392 TE: 390-392
<b>Content Standard 2: Students identify locations of objects, identify location relative to other objects, and describe the effects of transformations (e.g., sliding, flipping, turning, enlarging, reducing) on an object. (Position)</b>	
1. Locate and describe objects in terms of their position, polar coordinates, three-dimensional Cartesian coordinates, vectors and limits	The opportunity to address this objective is available on the following pages: PE: 6, 378-379 TE: 6, 378-379
2. Locate and describe objects in terms of their orientation and relative position, including displacement (vectors), phase shift, maxima, minima and inflection points; give precise mathematical descriptions of symmetries.	PE: 391-392 TE: 391-392
3. Give precise mathematical descriptions of transformations and describe the effects of transformations on size, shape, position and orientation.	This objective is addressed in Saxon <i>Algebra 1: An Incremental Approach</i> .
4. Describe the locus of a point by a rule or mathematical expression; trace the locus of a moving point.	This objective is addressed in Saxon <i>Algebra 1: An Incremental Approach</i>
5. Use concepts of position, direction and orientation to describe the physical world and to solve problems.	This objective is addressed in Saxon <i>Algebra 1: An Incremental Approach</i>
<b>Content Standard 3: Students compare attributes of two objects, or of one object with a standard (unit), analyze situations to determine what measurement(s) should be made and to what level of precision. (Measurement)</b>	
1. Select and use appropriate tools; make accurate measurements using both metric and common units, and measure angles in degrees and radians	PE: 68-71, 319-320, 322-323, 327-328, 337 TE: 68-71, 319-320, 322-323, 327-328, 337
2. Continue to make and apply measurements of length, mass (weight), time, temperature, area, volume, angle; classify objects according to their dimensions.	PE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390 TE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390
3. Estimate measures with a specified degree of accuracy and evaluate measurements for accuracy, precision, and tolerance.	PE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390 TE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390

**Saxon Mathematics Curriculum**  
**GRADE: 8 (Algebra 1/2)**

4. Interpret measurements and explain how changes in one measure may affect other measures.	PE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390 TE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390
5. Use proportional reasoning and indirect measurements, including applications of trigonometric ratios, to measure inaccessible distances and to determine derived measures such as density.	PE: 163, 222 TE: 163, 222
6. Apply measurement to describe the real world and to solve problems.	The opportunity to address this objective is available on the following pages: PE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390 TE: 101, 123-124, 136, 216-217, 319-320, 322-323, 327-328, 369, 375-376, 383-384, 390
<b>III. DATA ANALYSIS AND STATISTICS</b>	
<b>Content Standard 1: Students collect and explore data, organize data into a useful form, and develop skill in representing and reading data displayed in different formats. (Collection, Organization, and Presentation of Data)</b>	
1. Collect and explore data observation, measurement, surveys, sampling techniques and simulations.	The opportunity to address this objective is available on the following pages: PE: 87-88 TE: 87-88
2. Organize data using tables, charts, graphs, spreadsheets and data bases.	PE: 87-88, 378-380 TE: 87-88, 378-380
3. Present data using the most appropriate representation and give a rationale for their choice; show how certain representations may skew the data or bias the presentation.	The opportunity to address this objective is available on the following pages: PE: 87-88, 378-380 TE: 87-88, 378-380
4. Identify what data are needed to answer a particular question or solve a given problem and design and implement strategies to obtain, organize and present those data	The opportunity to address this objective is available on the following pages: PE: 87-88, 378-380 TE: 87-88, 378-380
<b>Content Standard 2: Students examine data and describe characteristics of a distribution, relate data to the situation from which they arose, and use data to answer questions convincingly and persuasively. (Description and Interpretation)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Critically read data from tables, charts or graphs and explain the source of the data and what the data represent	PE: 87-88, 378-380 TE: 87-88, 378-380
2. Describe the shape of a data distribution and determine measures of central tendency, variability and correlation.	PE: 64-65, 76-77, 120-121 TE: 67-65, 76-77, 120-121
3. Use the data and their characteristics to draw and support conclusions	The opportunity to address this objective is available on the following pages: PE: 87-88, 378-380 TE: 87-88, 378-380

**Saxon Mathematics Curriculum**  
**GRADE: 8 (Algebra 1/2)**

4. Critically question the sources of data; the techniques used to collect, organize and present data; the inferences drawn from the data; and the sources of bias and measures taken to eliminate such bias.	PE: 87-88, 378-380 TE: 87-88, 378-380
5. Formulate questions and problems and gather and interpret data to answer those questions.	The opportunity to address this objective is available on the following pages: PE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-172, 184-185, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306 TE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-172, 184-185, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306
<b>Content Standard 3: Student draw defensible inferences about unknown outcomes, make predictions, and identify the degree of confidence they have in their predictions. (Inference and Prediction)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Make and test hypotheses.	This objective is addressed in Saxon Algebra 2: An Incremental Development
2. Design investigations to model and solve problems; also employ confidence intervals and curve fitting in analyzing the data.	This objective is addressed in Saxon Algebra 2: An Incremental Development
3. Formulate and communicate arguments and conclusions based on data, and evaluate their arguments and those of others.	This objective is addressed in Saxon Algebra 2: An Incremental Development.
4. Make predictions and decisions based on data, including interpolations and extrapolations.	PE: 333-335, 343-344 TE: 333-335, 343-344
5. Employ investigations, mathematical models, and simulations to make inferences and predictions to answer questions and solve problems.	This objective is addressed in Saxon Algebra 1: An Incremental Development.
<b>IV. NUMBER SENSE AND NUMERATION</b>	
<b>Content Standard 1: Students experience counting and measuring activities to develop intuitive sense about numbers, develop understanding about properties of numbers, understand the need for and existence of different sets of numbers, and investigate properties of special numbers. (Concepts and Properties of Numbers)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Develop an understanding of irrational, real and complex numbers	PE: 179, 307-308 TE: 179, 307-308
2. Use the $(a+bi)$ and polar forms of complex numbers.	The opportunity to address this objective is available on the following pages: PE: 179, 307-308 TE: 179, 307-308
3. Develop an understanding of the properties of the real and complex number systems and of the properties of special numbers including $\pi$ , $i$ , $e$ , and conjugates	The opportunity to address this objective is available on the following pages: PE: 179, 307-308 TE: 179, 307-308

**Saxon Mathematics Curriculum**  
**GRADE: 8 (Algebra 1/2)**

4. Apply their understanding of number systems to model and solve mathematical and applied problems.	The opportunity to address this objective is available on the following pages: PE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-172, 184-185, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306 TE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-172, 184-185, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306
<b>Content Standard 2: Students recognize that numbers are used in different ways such as counting, measuring, ordering and estimating, understand and produce multiple representations of a number, and translate among equivalent representations. (Representation and Uses of Numbers)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Give decimal representations of rational and irrational numbers and coordinate and vector representations of complex numbers.	PE: 307, 378-379 TE: 307, 378-379
2. Develop an understanding of more complex representations of numbers, including exponential and logarithmic expressions, and select an appropriate representation to facilitate problem solving.	PE: 10, 141-142, 163, 211, 284-286, 296-297 TE: 10, 141-142, 163, 211, 284-286, 296-297
3. Determine when to use rational approximations and the exact values of numbers such as $e$ , $\pi$ , and the irrational.	PE: 10-11, 13-14, 18, 179, 264 TE: 10-11, 13-14, 18, 179, 264
4. Apply estimation in increasingly complex situations.	PE: 264 TE: 264
5. Select appropriate representations for numbers, including representations of rational and irrational numbers and coordinate and vector representations of complex numbers, in order to simplify and solve problems.	PE: 6, 307, 378-379 TE: 6, 307, 378-379
<b>Content Standard 3: Students investigate relationships such as equality, inequality, inverses, factors and multiples, and represent and compare very large and very small numbers. (Number Relationships)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Compare and order real numbers and compare rational approximations to exact values.	PE: 202-203, 214-215, 264 TE: 202-203, 214-215, 264
2. Express numerical comparisons as ratios and rates	PE: 104, 109, 161, 173-174, 187-188, 194-195, 198-199, 222-223, 244-245, 280-283, 299-300 TE: 104, 109, 161, 173-174, 187-188, 194-195, 198-199, 222-223, 244-245, 280-283, 299-300
3. Extend the relationships of primes, factors, multiples and divisibility in an algebraic setting	PE: 13, 32-33, 38-40, 56-57, 61-62, 66-67, 90-91 TE: 13, 32-33, 38-40, 56-57, 61-62, 66-67, 90-91
4. Express number relationships using positive and negative rational exponents, logarithms and radicals	PE: 132-135, 140-142, 211, 278-279, 284-285, 293-294, 296-297 TE: 132-135, 140-142, 211, 278-279, 284-285, 293-294, 296-297
5. Apply their understanding of number relationships in solving problems	PE: 35-36, 104, 108-109, 194-195, 199-201, 222-223, 244-245, 259, 274-277 TE: 35-36, 104, 108-109, 194-195, 199-201, 222-223, 244-245, 259, 274-277

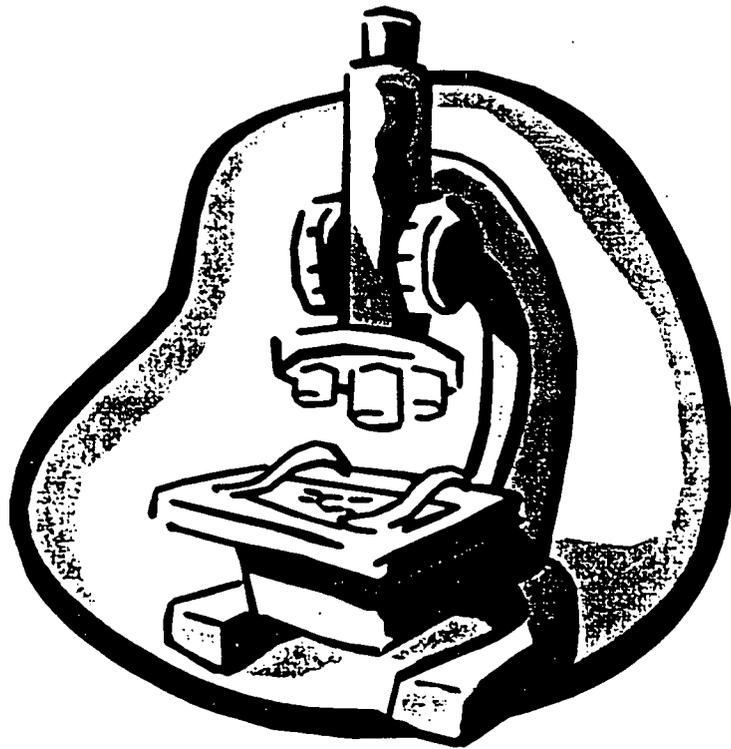
<b>V. NUMERICAL AND ALGEBRAIC OPERATIONS AND ANALYTICAL THINKING</b>	
<b>Content Standard 1: Students understand and use various types of operations (e.g., addition, subtraction, multiplication, division) to solve problems. (Operations and their Properties)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Present and explain geometric and symbolic models for operations with real and complex numbers and algebraic expressions.	PE: 219-220, 233-234, 250-251, 307 TE: 219-220, 233-234, 250-251, 307
2. Compute with real numbers, complex numbers, algebraic expressions, matrices and vectors using technology and, for simple instances, with paper-and-pencil algorithms.	PE: 15, 219-220, 233-234, 250-251, 307 TE: 15, 219-220, 233-234, 250-251, 307
3. Describe the properties of operations with numbers, algebraic expressions, vectors and matrices, and make generalizations about the properties of given mathematical systems.	PE: 15, 219-220, 233-234, 250-251, 307 TE: 15, 219-220, 233-234, 250-251, 307
4. Efficiently and accurately apply operations with real numbers, complex numbers, algebraic expressions, matrices and vectors in solving problems.	PE: 15, 219-220, 233-234, 250-251, 307 TE: 15, 219-220, 233-234, 250-251, 307
<b>Content Standard 2: Students analyze problems to determine an appropriate process for solution, and use algebraic notations to model or represent problems. (Algebraic and Analytical thinking)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Identify important variables in a context, symbolize them and express their relationships algebraically.	PE: 99, 219-220, 233-234, 250-251, 269, 271-272, 287 TE: 99, 219-220, 233-234, 250-251, 269, 271-272, 287
2. Represent algebraic concepts and relationships with matrices, spreadsheets, diagrams, graphs, tables, physical models, vectors, equations and inequalities; and translate among the various representations.	PE: 214-215, 219-220, 233-234, 238-239, 247-248, 250-251, 256-257, 276-277, 280-281, 346-347, 350, 387-388, 402-403 TE: 214-215, 219-220, 233-234, 238-239, 247-248, 250-251, 256-257, 276-277, 280-281, 346-347, 350, 387-388, 402-403
3. Solve linear equations and inequalities algebraically and non-linear equations using graphing, symbol-manipulating or spreadsheet technology, and solve linear and non-linear systems using appropriate methods.	PE: 214-215, 219-220, 233-234, 238-239, 247-248, 250-251, 256-257, 276-277, 280-281, 346-347, 350, 387-388, 402-403 TE: 214-215, 219-220, 233-234, 238-239, 247-248, 250-251, 256-257, 276-277, 280-281, 346-347, 350, 387-388, 402-403
4. Analyze problems that can be modeled by functions, determine strategies for solving the problems and evaluate the adequacy of the solutions in the context of the problems.	This objective is address in Saxon Algebra 1: An Incremental Development.
5. Explore problems that reflect the contemporary uses of mathematics in significant contexts and use the power of technology and algebraic and analytic reasoning to experience the ways mathematics is used in society.	PE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-174, 184-187, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306 TE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-174, 184-187, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306

**Saxon Mathematics Curriculum**  
**GRADE: 8 (Algebra 1/2)**

<b>VI. PROBABILITY AND DISCRETE MATHEMATICS</b>	
<b>Content Standard 1: Students develop an understanding of the noting of certainty and of probability as a measure of the degree of likelihood that can be assigned to a given even based on the knowledge available, and make critical judgments about claims that are made in probabilistic situations.</b>	
<b>(Probability)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Develop an understanding of randomness and chance variation and describe chance and certainty in the language of probability.	PE: 333-335, 343-344 TE: 333-335, 343-344
2. Give a mathematical definition of probability and determine the probabilities of more complex events, and generate and interpret probability distributions.	PE: 333-335, 343-344 TE: 333-335, 343-344
3. Analyze events to determine their dependence or independence and calculate probabilities of compound events.	PE: 333-335, 343-344 TE: 333-335, 343-344
4. Use sampling and simulations to determine empirical probabilities and, when appropriate, compare them to the corresponding theoretical probabilities; understand and apply the law of large numbers.	PE: 333-335, 343-344 TE: 333-335, 343-344
5. Conduct probability experiments and simulations to model and solve problems, including compound events.	PE: 333-335, 343-344 TE: 333-335, 343-344
<b>Content Standard 2: Students investigate practical situations such as scheduling, routing, sequencing, networking, organizing and classifying, and analyze ideas like recurrence relations, induction, iteration, and algorithm design. (Discrete Mathematics)</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Derive and use formulas for calculating permutations and combinations.	PE: 394-396 TE: 394-396
2. Use sets and set relationships to represent algebraic and geometric concepts.	This objective is addressed in Saxon Algebra 1: An Incremental Development.
3. Use vertex-edge graphs to solve network problems such as finding circuits, critical paths, minimum spanning trees and adjacency matrices.	PE: 378-380 TE: 378-380
4. Analyze and use discrete ideas, such as induction, iteration and recurrence relations.	This objective is addressed in Saxon Algebra 1: An Incremental Development.
5. Describe and analyze efficient algorithms to accomplish a task or solve a problem in a variety of contexts, including practical, mathematical and computer-related situations.	PE: 15 TE: 15
Use discrete mathematics concepts as described above to model situations and solve problems; and look for whether or not enter is a solution (existence problems), determine how many solutions there are (counting problems) and decide upon a best solution (optimization problems)	PE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-174, 184-187, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306 TE: 17-18, 35-36, 76-77, 85-86, 104, 108-109, 171-174, 184-187, 196-197, 199-201, 222-223, 227-229, 236-237, 244-245, 280-283, 304-306

**SCIENCE  
EIGHTH GRADE**

**NHA Science Philosophy  
Content Standards and Objectives  
Grade Level Schedule  
The Teaching of Origins**



## NHA SCIENCE PHILOSOPHY

National Heritage Academies believes in excellence in science education. Our curriculum is based on:

### NHAGOSE Standards (National Heritage Goals and Objectives for Science Education)

Nhagose standards are the state requirements of what all students need to know and be able to do in the subject of Science. A state standardized assessment tool is used to provide feedback on how well the objectives have been covered. Our curriculum has been carefully aligned so as to cover these objectives and skills consistently throughout all grades.

### Core Knowledge (content objectives)

The Core Knowledge Sequence represents a first and ongoing attempt to state specific core knowledge that children should learn. It is designed to encourage steady academic progress as children build their knowledge from one year to the next. Core Knowledge objectives cover much of the same information as the state standards, thus, they are not listed twice. For those objectives/units that are specific to Core Knowledge, they are labeled as such and should be covered when possible. It is National Heritage Academies' goal for the Core Knowledge to account for approximately 50% of the science curriculum.

NHA teachers play significant role in the creation of our science curriculum. Besides the extensive work of our science specialist, Randy Creswell, many teachers have contributed time and effort into writing units and/or committee work where much of our information such as experiment tables were compiled.

Our teachers plan their lessons using the content objectives and lesson ideas presented in the binder. Principals will provide the materials and resources needed to accompany the plans.

*SCIENTIFICALLY LITERATE STUDENTS KNOW HOW TO...USE KNOWLEDGE...  
TO ENGAGE IN ACTIVITIES...IN REAL-WORLD CONTEXTS.*

## MIDDLE SCHOOL SCIENCE CONTENT STANDARDS

<b>I. CONSTRUCT NEW SCIENTIFIC AND PERSONAL KNOWLEDGE</b>	
<b>Content Standard 1: All students will ask questions that help them learn about the world; design and conduct investigations using appropriate methodology and technology; learn from books and other sources of information; communicate their findings using appropriate technology; and reconstruct previously learned knowledge.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Generate scientific questions about the world based on observation.	C 1
2. Design and conduct simple investigations.	C 2
3. Investigate toys / simple appliances and explain how they work, using instructions and appropriate safety precautions.	C 3
4. Use measurement devices to provide consistency in investigation.	C 4
5. Use sources of information to help solve problems.	C 5
6. Write and follow procedures in the form of step-by-step instructions, recipes, formulas, flow diagrams, and sketches.	C 6
<b>II. REFLECT ON THE NATURE, ADEQUACY, AND CONNECTIONS ACROSS SCIENTIFIC KNOWLEDGE</b>	
<b>Content Standard 2: All students will analyze claims for their scientific merit and explain how scientists decide what constitutes scientific knowledge; how science is related to other ways of knowing; how science and technology affect our society; and how people of diverse cultures have contributed to and influenced developments in science.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Evaluate the strength and weaknesses of claims, arguments, or data.	R 1
2. Describe limitations in personal knowledge.	R 2
3. Show how common themes of science, mathematics, and technology apply in real-world contexts.	R 3
4. Describe the advantages and risks of new technologies.	R 4
5. Recognize the contributions made in science by cultures and individuals of diverse backgrounds.	R 5
<b>III. USE SCIENTIFIC KNOWLEDGE FROM THE LIFE SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>1. Content Standard 1: All students will apply an understanding of cells to the functioning of multicellular organisms; and explain how cells grow, develop, and reproduce.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe similarities / differences between single-celled and multicellular organisms.	LC 2
2. Explain why specialized cells are needed by plants and animals	LC 3
3. Explain how cells use food as a source of energy.	LC 4

## MIDDLE SCHOOL SCIENCE CONTENT STANDARDS

<b>Content Standard 2: All students will use classification systems to describe groups of living things; compare and contrast differences in the life cycles of living things; investigate and explain how living things obtain and use energy; and analyze how parts of living things are adapted to carry out specific functions.</b>	
<b>Objective</b>	<b>Lesson/Methodology</b>
1. Compare and classify familiar organisms into major groups on the basis of their structure.	LO 6
2. Describe the life cycle of a flowering plant.	LO 7
3. Describe evidence that plants make and store food.	LO 8
4. Explain how selected systems and processes work together in plants and animals.	LO 9
<b>Content Standard 3: All students will investigate and explain how characteristics of living things are passed on through generations; explain why organisms within a species are different from one another; and explain how new traits can be established by changing or manipulating genes.</b>	
<b>Objectives</b>	<b>Lessons/Methodology</b>
1. Describe how the characteristics of living things are passed down through generations.	LH 2
2. Describe how heredity and environment may influence / determine characteristics of an organism.	LH 3
<b>Content Standard 4: All students will explain how scientists construct and scientifically test theories concerning the origin of life and evolution of species; compare ways that living organisms are adapted (suited) to survive and reproduce in their environments; and analyze how species change through time.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe how biologists might trace possible evolutionary relationships among present and past life.	LE 3
<b>Content Standard 5: All students will explain how parts of an ecosystem are related and how they interact; explain how energy is distributed to living things in an ecosystem; investigate and explain how communities of living things change over a period of time; describe how materials cycle through an ecosystem and get reused in the environment; and analyze how humans and the environment interact.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe common patterns of relationships among populations.	LEC 6
2. Predict the effects of changes in one population in a food web on other populations.	LEC 7
3. Describe how all organisms in an ecosystem acquire energy directly or indirectly from sunlight.	LEC 8
4. Describe the likely succession of a given ecosystem over time.	LEC 9
5. Identify some common materials that cycle through the environment.	LEC 10
6. Describe ways in which humans alter the environment.	LEC 11
7. Explain how humans use and benefit from plant and animal materials	LEC 12

## MIDDLE SCHOOL SCIENCE CONTENT STANDARDS

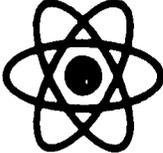
<b>IV. USE SCIENTIFIC KNOWLEDGE FROM THE PHYSICAL SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>Content Standard 2: All students will investigate, describe, and analyze ways in which matter changes; describe how living things and human technology change matter and transform energy; explain how visible changes in matter are related to atoms and molecules; and how changes in matter are related to changes in energy.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe common physical changes in materials; evaporation, condensation, thermal expansion, and contraction.	PCM 4
2. Describe common chemical changes in terms of properties of reactants and products.	PCM 5
3. Distinguish between physical and chemical changes in natural and technological systems.	PCM 6
4. Describe how waste products accumulating from natural and technological activities create pollution.	PCM 7
5. Explain physical changes in terms of the arrangement and motion of atoms and molecules.	PCM 8
<b>Content Standard 1: All students will measure and describe the things around us; explain what the world around us is made of; identify and describe forms of energy; and explain how electricity and magnetism interact with matter.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Measure physical properties of objects and substances.	PME 8
2. Describe when length, mass, weight, area, or volume are appropriately to describe the size of an object.	PME 9
3. Classify objects as elements, compounds, or mixtures.	PME 10
4. Describe matter as consisting of extremely small particles (atoms) that bond to form molecules.	PME 11
5. Describe the arrangement and motion of molecules in solids, liquids, and gasses.	PME 12
6. Describe energy and the many common forms it takes.	PME 13
7. Describe how common forms of energy can be converted, one to another	PME 14
8. Describe electron flow in simple electrical circuits	PME 15
9. Use electrical currents to create magnetic fields.	PME 16
<b>Content Standard 3: All students will describe how things around us move and explain why things move as they do; demonstrate and explain how we control the motions of objects; and relate motion to energy and energy conversions.</b>	
<b>Objective</b>	<b>Lesson/Methodology</b>
1. Qualitatively describe and compare motions in three dimensions	PMO 4
2. Relate changes in speed or direction to unbalanced forces in two dimensions	PMO 5
3. Describe the forces exerted by magnets, electrically charged objects, and gravity.	PMO 6

4. Design strategies for moving objects by means of the application of forces, including the use of simple machines.	PMO 7
<b>Content Standard 4: All students will describe sounds and sound waves; explain shadows, color, and other light phenomena; measure and describe vibrations and waves; and explain how waves and vibrations transfer energy.</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Explains how sound travels through different media.	PWV 6
2. Explain how echoes occur and how they are used.	PWV 7
3. Explain how light helps us to see.	PWV 8
4. Explain how objects or media reflect, refract, transmit, or absorb light.	PWV 9
5. Describe the motion of pendulums or vibrating objects.	PWV 10
6. Explain how waves transmit energy.	PWV 11
<b>V. USING SCIENTIFIC KNOWLEDGE FROM THE EARTH AND SPACE SCIENCES IN REAL-WORLD CONTEXTS</b>	
<b>Content Standard 1: All students will describe the earth's surface; describe and explain how the earth's features change over time; and analyze effects of technology on the earth's surface and resources.</b>	
<b>Objectives</b>	<b>Lessons/Methodologies</b>
1. Describe and identify surface features using maps.	EG 7
2. Explain how rocks and minerals are formed.	EG 8
3. Explain how rocks and fossils are used to determine the age and geological history of the earth.	EG 9
4. Explain how rocks are broken down, how soil is formed, and how surface features change.	EG 10
5. Explain how technology changes the surface of the earth.	EG 11
<b>Content Standard 2: All students will demonstrate where water is found on the earth; describe the characteristics of water and how water moves; and analyze the interaction of human activities with the hydrosphere.</b>	
<b>Objective</b>	<b>Lessons/Methodologies</b>
1. Describe various forms that water takes on the earth's surface and conditions under which they exist.	EH 5
2. Describe how rainwater in Michigan reaches the oceans.	EH 6
3. Describe the origins of pollution in the hydrosphere.	EH 7
<b>Standard 3: All students will investigate and describe what makes up weather and how it changes from day to day, from season to season, and over long periods of time; explain what causes different kinds of weather; and analyze the relationships between human activities and the atmosphere.</b>	
<b>Objectives</b>	<b>Lessons/Methodology</b>
1. Describe the composition and characteristics of the atmosphere	EAW 5
2. Describe patterns of changing weather and how they are measured	EAW 6
3. Explain the water cycle and its relation to weather patterns.	EAW 7
4. Describe the health effects of polluted air.	EAW 8

**MIDDLE SCHOOL SCIENCE CONTENT STANDARDS****1384**

<b>Content Standard 4: The Solar System, Galaxy, and Universe. All students will compare and contrast our planet and sun to other planets and star systems; describe and explain how objects in the solar system move; explain scientific theories as to the origin of the solar system; and explain how we learn about the universe</b>	
<b>Objective</b>	<b>Lessons/Methodology</b>
1. Describe the sun, moon, and earth	ES 1
2. Describe the motions of the earth and moon around the sun	ES 2
3. Compare the earth to the other planets in terms of supporting life.	ES 3
4. Describe, compare, and explain the motions of planets, moons, and comets in the solar system.	ES 4
5. Describe and explain the common observations of the day and night skies.	ES 5
6. Explain how the solar system is formed.	ES 6

## Science Objective Summaries and their Links:

EAW	Earth Science	Atmosphere and Weather	
EG	Earth Science	Geosphere	
EH	Earth Science	Hydrosphere	
ES	Earth Science	Space	
LC	Life Science	Cells	
LE	Life Science	Evolution	
LEC	Life Science	Ecosystems	
LH	Life Science	Heredity	
LO	Life Science	Living Organisms	
PCM	Physical Science	Changes in Matter	
PME	Physical Science	Matter and Energy	
PMO	Physical Science	Motion of Objects	
PWV	Physical Science	Waves (Sound, Light, Pendulae)	

# RECOMMENDED SCIENCE SCHEDULE

## GRADE EIGHT

**Aug**  
Aug 27

Scientific Method and small projects PMO 7

**SEP**

Sep 4 LO Review

Focus on LO 7

Sep 10 LEC Review

Focus on LEC 6

Sep 17 LEC Review

Focus on 9/10

Sep 24 LC and LH Review

**OCT**

Oct 1 PME 13 and 14 Review

Oct 8 PME 16 and 17 Review

Oct 15 PCM Review

Focus on PCM 4/ PCM 8.

Oct 22 PMO Review

Focus on Newton's Laws

Oct 29 PWV 1, 2, 6, 7 Review

Sound

**NOV**

Nov 5

GUIDED INVESTIGATION

Nov 12 PWV 3, 4, 5, 8, 9 Review

Light

Nov 19

GUIDED INVESTIGATION

Nov 26 EG Review

Focus on EG8

**DEC**

Dec 3 EH Review

Focus on EH5

Dec 10 EAW Review

Focus on EAW 6

Dec 17

GUIDED INVESTIGATION

**JAN**

Jan 3 ES Review

Focus on ES 3

Jan 7 ES Review

Focus on ES 5

Jan 14

INVESTIGATION: MEAP ASSIGNED

Jan 21

8th Grade Science MEAP

**FEB - JUNE**

Do Science Olympiad

Do Research Projects

Do Remedial Work

## The Teaching of Origins National Heritage Academies

National Heritage Academies recognizes that the teaching of origins is a topic that generates controversy because it touches deeply at the core of many people's strongly held beliefs. In no way do we seek to undermine the beliefs held by each family unit within our schools. Rather, we respect parents' rights to instruct their children on these topics.

National Heritage Academies is required to teach according to state standards. In addition to teaching the state's educational objectives in each state in which we are operating, we are committed to that end, NHA has a system of objectives called NHAGOSE Standards (National Heritage Academies Goals of Science Education) that are based on Michigan state standards. These standards have been expanded to include those of other states as well as the Core Knowledge Project. NHAGOSE Standards have been approved state by state with our charters as well as existing state standards.

At the elementary and middle school levels, NHA is committed to four teaching objectives that are:

- 1. basic facts;
- 2. science skills (making graphs and tables, measuring, etc.);
- 3. science models and their limitations;
- 4. thinking skills to combine all the above into a coherent view of the universe.

The Knowledge Sequence focuses on points one and two above. Different state standards are used in different areas. Our NHAGOSE Standards have been written to implement these ideas in all domains of science in age-appropriate ways.

### Standards

The following objectives are a complete description of the three objectives related to evolution. The objectives are:

- 1. explain how fossils provide evidence about the nature of ancient life.
  - 2. explain how physical and/or behavioral characteristics of organisms help them to survive in their environments.
  - 3. describe how biologists might trace possible evolutionary relationships among organisms and past life forms.
- LE 2 are elementary objectives and LE 3 is a middle school objective.

### Evolution and Religion

All National Heritage Academies' schools teach science. The teaching of science is based on the following objectives. In the process of teaching these objectives, we:

- 1. teach basic facts;
- 2. teach science skills (make graphs and tables, measurement...);
- 3. teach science models and their limitations;
- 4. teach thinking skills to combine all the above into a coherent view of the universe.

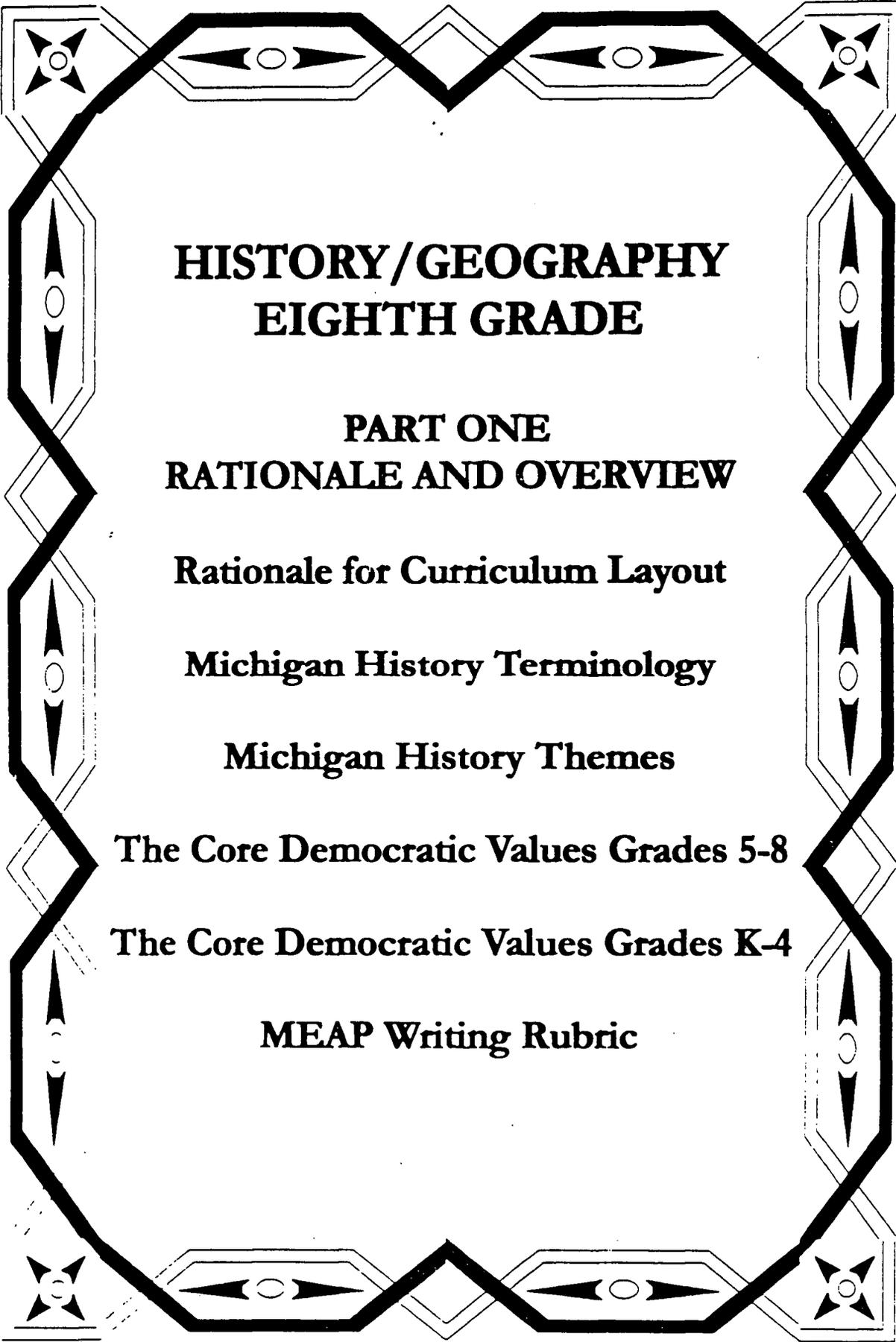
We do not teach any particular philosophy, ideology, and/or religion that are not stated in our objectives.

We do not teach ideology or naturalistic religion. To the extent that evolution is concerned with fossils (and deductions from them), adaptations of plants and animals to environments, we teach these as testable, observable domains in which we legitimately practice scientific inquiry. In LE 3 we recognize evolution to be a working tool of the life sciences, which all students, regardless of their belief structures, should understand. Note that this objective does not insist that all biologists are evolutionists, mandate that evolutionary relationships are facts and laws like Newtonian Mechanics, or require that anyone believe the evolutionary relationships. The objective does require that we teach all students to understand how some biologists have reached certain conclusions.

Each of the listed objectives is tied in our curriculum to a related body of knowledge. LE 1 is tied to geology and is integrated with geology units. LE 2 is tied to the study of living organisms, their character and diversity. LE 3 is taught with units on cell biology and heredity. The result is that we are teaching science, of which these objectives are a part.

We do not teach creationism or scientific creationism. We do not have any labeled objectives for creationism. There are matters on which some scientific creationists will focus such as erosion (dealt with in EG 4, EG 10, EH 2 and EH 6) or density (PME 8). These topics are taught, but as issues of science, not as issues of creationism.

In all of our teaching, we are helping students both develop and critique models of the universe, recognizing that models have value in helping us to think, plan, and make conclusions. We also seek to help students recognize that models are simplifications of reality and are thus always subject to the limitations of our finite minds.



**HISTORY/GEOGRAPHY  
EIGHTH GRADE**

**PART ONE  
RATIONALE AND OVERVIEW**

**Rationale for Curriculum Layout**

**Michigan History Terminology**

**Michigan History Themes**

**The Core Democratic Values Grades 5-8**

**The Core Democratic Values Grades K-4**

**MEAP Writing Rubric**

## RATIONALE FOR CURRICULUM LAYOUT

### MICHIGAN

**The History Themes Project:** This effort was created for Michigan teachers and students to provide a reasonable and valid list of important events, people, and ideas for United States and Michigan History. This reasonable and valid list is known as "Posthole Events."

#### **Purpose: Why Did We Need a History Themes Project?**

The content standards and benchmarks for social studies in the Michigan Curriculum Framework are very specific about how we expect students to use historical knowledge. The four Michigan History Content Standards which reflect the National History Standards, ask students to be able to:

- use time and chronology of important historical events in the history of the United States to explain cause and effect
- to show a comprehension of the past by being able to tell the story of the past using important events, places and people from the past
- to use primary and secondary source documents to analyze the past from a variety of points of view
- to judge decisions from the past

While the content standards are specific regarding the acquisition of an historical perspective, they do not tell teachers and their students which historical events and people are important. The goal of both the Curriculum and MEAP Offices at the Department of Education and the Department of Treasury is to maintain a perfect alignment between the benchmarks and the social studies MEAP tests at grades 5, 8, and 11.

At the fourth grade, students are preparing for the fifth grade MEAP. Therefore, it is important that fourth grade teachers and students understand the Michigan Themes Project and align it with their curriculum. National Heritage Academies has done just that. The History/Geography portion of the curriculum handbook makes use of the postholes, themes, definitions and descriptions in a complete manner for future fifth grade MEAP preparation.

### NORTH CAROLINA

Teachers are to use their state book for the first semester.

Teachers are to use the Core Knowledge objectives for the second semester.

### NEW YORK

Teachers are to use their state book for the first semester.

Teachers are to use the Core Knowledge objectives for the second semester.

**• Note: For ease of use, you will find state names at the bottom of each page. These indicate which pages apply to your teaching.**

## **MICHIGAN HISTORY TERMINOLOGY**

**THEMES:** Themes add a dimension to history that is vital if students are to make sense of it. Emphasizing a limited number of ideas with students adds depth to a student's developing understanding of history. Having a handful of big ideas in mind at the beginning of the year adds purpose to the selection of the details that a teacher will present.

### **POSTHOLE EVENT**

The important date and the historical event associated.

### **BENCHMARK**

Benchmarks provide indicators of student expectations at various developmental levels. They indicate what students should know and be able to do.

### **ALIGNMENT**

The alignment of the curriculum is what students are responsible for learning in a course or subject. It is critical that every unit and lesson is intentionally designed to meet the learning goals of the course. The NHA curriculum content is designed to support national and state standards and state and standardized tests.

#### Benefits

- Aligning curriculum ensures that students are well prepared for assessments
- Aligning curriculum ensures that students achieve the standards
- Consistency across grade levels
- Aids in the collaboration among all teachers
- Bridges the gap between what students should know and do and the teaching and learning process

### **CORE DEMOCRATIC VALUES (Kindergarten – grade 4 definition)**

The core democratic values are the ideas in which Americans believe. We do not look the same. We like different things. We each think differently. There are some ways that we are the same. We believe in telling the truth. We believe in treating people fairly. To be good citizens we must practice these values each day at home and school.

### **CORE DEMOCRATIC VALUES (Grades 5-8 definition)**

Core Democratic Values are the fundamental beliefs and constitutional principles of American society, which unite all Americans. These values are expressed in the Declaration of Independence, the United States Constitution and other significant documents, speeches, and writings of the nation.

### **CONCLUSION**

Closely examine the relationship between the theme and the posthole events that have been identified to illustrate them. The state of Michigan along with NHA believes that they will provide a framework that will be a powerful aid to promoting historical understanding in your students.

**MICHIGAN**

## **8th Grade American History Themes, Postholes, Definition and Description - 1763-1877**

### **Theme 1: The movement of people, the spread of cultures and technological innovations of diverse groups and visionaries fueled the growth of America. (Civilization, Cultural Diffusion, and Innovation)**

A major theme in history is civilization, cultural diffusion and innovation; these concepts deal with the spread of tools, machines, traditions, lifestyles, laws, practices and ideas. To understand history we need to look at how groups of people have interacted, their goals, tools and inventions. Teachers of social studies must help students recognize the fluid interplay between different groups and the struggle to maintain a group identity while absorbing and accommodating change. Often once an idea has been unleashed it cannot be contained and frequently causes an unanticipated transformation---the process of diffusion.

Human groups continually influence each other's lifestyles, whether by intention or not. For example, Europeans used technology to explore and trade. Their values and interactions effected Native Americans, forever changing the lifestyle of native peoples. A prohibition against reading and writing by enslaved Africans was once used to dominate African Americans, yet it has become an important means of expression of African American culture. Political rights, originally reserved only for white male property owners, once unleashed, could not be denied to women and minorities.

The spread and use of ideas, technology and innovations causes people to change and evolve. The Erie Canal brought a rich flood of new people who spread their cultures and innovative ideas to ever-widening geographic spheres.

**Benchmark Alignment:** II.2MS4, II.2MS5, II.5MS1, IV.2MS2, IV.4MS1

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### **Theme 2: The development and expansion of the United States was driven by the relationship between location, natural resources, climate and the cultures of the people who settled North America. (Human Interaction with the Environment)**

Humans influence each other, just as they interact with the natural environment. Events in history need to be seen in light of the struggles of humans to master nature by developing ways to use and control the environment.

A comparison of the development of roads, railroads, and canals will help students develop an understanding of one way people interacted with their environment in the 18th and 19th centuries. Challenging physical environments and unconnected regions were seen by many European as barriers to progress. Uniting the resources of distant regions of the US to manufacturing centers and markets spurred the growth of transportation systems. The building of canals and railroads and the improvement in roads, in turn aided in the migration of people through out the country.

An understanding of our world based on relationships between location, resources, climate, and other elements of the natural environment is necessary for making wise social and economic choices.

**Benchmark Alignment:** I.1MS2, II.3MS2

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**Theme 3: Ideas, values and beliefs of African, European and Native Peoples shaped American politics, institutions, events and economic systems. (Values, Beliefs, Economics, Political Ideas and Institutions)**

How people organize themselves into political, religious, social, and economic groups is important to an understanding of history and modern life. An accurate understanding of why events occurred as they did is dependent on knowledge of the beliefs that were reflected in the institutions of the time. The relationships between the choices people make about how social structures allot the use of, and access to, resources leads to an understanding of how beliefs and values become institutions over time. Often ideas begin as commonly held assumptions that assume a pattern and become an institution: a social structure that supports the values and beliefs of the dominant culture as they evolve.

Slavery provides a window into how human beliefs; political ideas and distribution of resources develop into an institution. Slavery was an institution that Europeans brought with them to the New World. As ideas about slavery changed, these values influenced public opinion and politics, and challenged the institution as the country began to develop. Southern economy, built on the that institution collapsed when slavery was made unlawful. To achieve lasting learning, teachers of social studies need to help students identify the relationship between historical events and changing beliefs. Accepted beliefs often become assumptions that can evolve into institutions that support those beliefs.

**Benchmark Alignment:** I.4MS3, I.2MS1, III.1MS3, III.1MS4, III.2MS1, 2, and 3, IV.5MS3

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**Theme 4: The development of the United States and its role in world affairs is a result of many experiences with conflict and cooperation. (Conflict and Cooperation)**

Teachers of Social Studies provide students with a framework for understanding when they teach them that certain patterns of human behavior reoccur. Understanding how some behavior patterns repeat across time and space helps learners to make lasting connections. Much of American history can be meaningfully understood by viewing it in terms of cooperation and conflict. A complete look at American development must include ways people work together and cooperate during times of conflict as well as during times of peace. Furthermore, how we teach about conflict and cooperation affects our students' responses to these events in their own lives. Conflicts in American history include resolution of some while others remain unresolved.

Students can learn to identify reoccurring patterns through key events in United States history. Even in times of great cooperation, there can also be great conflict. Students will, for example, identify and describe cooperative efforts during colonial times as a key to the survival of colonists. Yet at the same time, controversy and conflict over religion and religious practices were also a part of colonial life. The social studies teacher brings the interplay between conflict and cooperation to light.

During the Civil War the cooperative efforts of the non-slave states supported America's military need. President Lincoln's call for soldiers to fight for the Union inspired thousands of working farmers to relinquish their farms to the untried skills of their wives and children. Social studies teachers insightfully forge a deeper understanding of this era of international conflict when they also characterize it as an era of national cooperation. The ordinary concerns and social and economic inequalities experienced by many Americans continued to exist during this era of conflict and cooperation and dedication to winning the war. It is from the teacher of social studies that the student will gain insight into our nation in which the ordinary, whether an element of conflict or cooperation, continues to exist side by side with the extraordinary. Students experience these same elements of conflict and cooperation in their own lives and social studies educators give students a powerful tool for lasting understanding by teaching learners how to see that these human patterns happen over and over and so connect history to the present.

**Benchmark Alignment:** I.1MS1, I.2MS1, I.2MS4, I.3MS1, I.4MS4, III.5MS2, VI.1MS3

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**Theme 5: American growth can be understood by comparing the development of social and cultural groups, and different regional characteristics. (Comparative History of Major Developments)**

We can use comparison and contrast as important teaching vehicles to see historical elements that are separated by space, time, gender or other variables. Looking at differences and similarities help us clarify our understanding of people, times, and places. It can also help us gauge the importance of the topics being studied. Helping our students draw these relationships can provide an opportunity to make them more humane and avoid mistakes from the past. These comparisons can be pathways to insights into our times and our culture.

Students gain a much greater depth of understanding about each group and the times in which they emerged when considered together. A comparative study of Native Peoples on the eve of colonization, the Plains Indians versus the Woodland Indians for example, show connections and relationships to regions, cultures and legacies that would not necessarily surface if studied without conscious attention to their similarities and differences. The Abolition Movement too provides an interesting opportunity for comparative study between its development in Michigan as compared to the rest of the United States.

**Benchmark Alignment:** I.1MS2, I.2MS1, II.1MS2, II.2MS5, II.4MS4, III.1MS4, III.2MS1, IV.4MS2, IV.4MS1, V.2MS1

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## The Core Democratic Values (Grades 5-8)

Core democratic values are the fundamental beliefs and constitutional principles of American society which unite all Americans. These values are expressed in the Declaration of Independence, the United States Constitution and other significant documents, speeches, and writings of the nation. Below are brief definitions of some core democratic values.

**Common good:** People should work together for the good of all. The government should make laws that are good for everyone.

**Justice:** All people should be treated fairly in getting the advantages and disadvantages of our country. No group or person should be favored.

**Liberty:** Liberty includes the freedom to believe what you want, freedom to choose your own friends, and to have your own ideas and opinions, to express your ideas in public, the right for people to meet in groups, and the right to have any lawful job or business.

**Popular sovereignty:** The power of the government comes from the people.

**Life:** Each person has the right to the protection of their life.

**Equality:** Everyone should get the same treatment regardless of where your parents or grandparents were born, your race or religion, or how much money you have. All people have political, social and economic equality.

**Diversity:** Differences in language, dress, food, where parents or grandparents were born, race, and religion are not only allowed but accepted as important.

**Pursuit of happiness:** Each person can find happiness in their own way, so long as they do not step on the rights of others.

**Truth:** The government and citizens should not lie.

**Patriotism:** A devotion to our country and the core democratic values in word and deed.

**Rule of law:** Both the government and the people must obey the law.

**ALL STATES**

**Theme 6: The voices and experiences of the ordinary people help us understand the social and political interaction and the changing patterns of class, ethnic, racial and gender structures in America. (Patterns of Social and Political Interaction)**

The teaching of history needs to include an understanding of the common people as well as the famous. History is incomplete without the daily culture of everyday people. Social history accesses the daily experiences of the men and women who lived during the time being studied. These men and women have left the record of their lives in their labor, poetry, stories, dances, songs, letters, and a myriad of other informal sources. When teachers of social studies put learners into the social context of the time, students meet ordinary people on their terms in their own times and see them as important contributors to key events. This provides students with multiple points of view and gives them a vehicle to engage in critical questioning of historical sources such as: Whose voice am I hearing and why? What might a lumberjack, or a miner, a mother, or an African American have thought about this issue?"

We can teach students about these patterns of social and political interactions from many points of view. Primary source documentation includes such items as personal journal entries, photographs, and folk songs. By using these social elements as well as the more traditional sources of governmental records, laws, and textbooks, we allow the learner to have a fuller picture of lives of the people of the time. Students are better able to appreciate the hardships, efforts and contributions of common men and women to the larger events in history. The songs of slavery provide a critical window into the lives of 19th Century Americans. The soldiers of the Revolutionary War gave a voice to men, women and children. Songs of workers on the Erie Canal open a window to factors influencing Michigan's statehood.

**Benchmark Alignment:** L.3MS3, L.4MS3, III.3MS2, VI.1MS2, VI.1MS3



# The Core Democratic Values (Kindergarten – Grade 4)

The core democratic values are the ideas in which Americans believe. We do not look the same. We like different things. We each think differently. There are some ways that we are the same. We believe in telling the truth. We believe in treating people fairly. To be good citizens we must practice these values each day at home and school.

## Our Core Democratic Values: Elementary Definitions

Teaching our core democratic values in kindergarten through grade 4 can be fun for students and easily integrated into your daily interactions with students. These simpler definitions are appropriate for younger students, *but please check your understanding of them by reading the definitions used in grades 5 through 8 (see next page)*. Your complete understanding will assure that your teaching will assist the teachers in the upper grades and eliminate misunderstandings by your students.

**Common good: Help others at home and school**

**Justice: Take turns and be fair to others**

**Liberty: Follow your beliefs and let others follow theirs**

**Popular sovereignty: Majority rules**

**Life: Rules keep you safe, follow them**

**Equality: Give everyone an equal chance**

**Diversity: Work and play with everyone**

**Pursuit of happiness: Have fun but follow the rules at home and school**

**Truth: Tell the truth**

**Patriotism: Use the core democratic values and home and school**

**Rule of law: Rules are made for everyone to follow**

**ALL STATES**

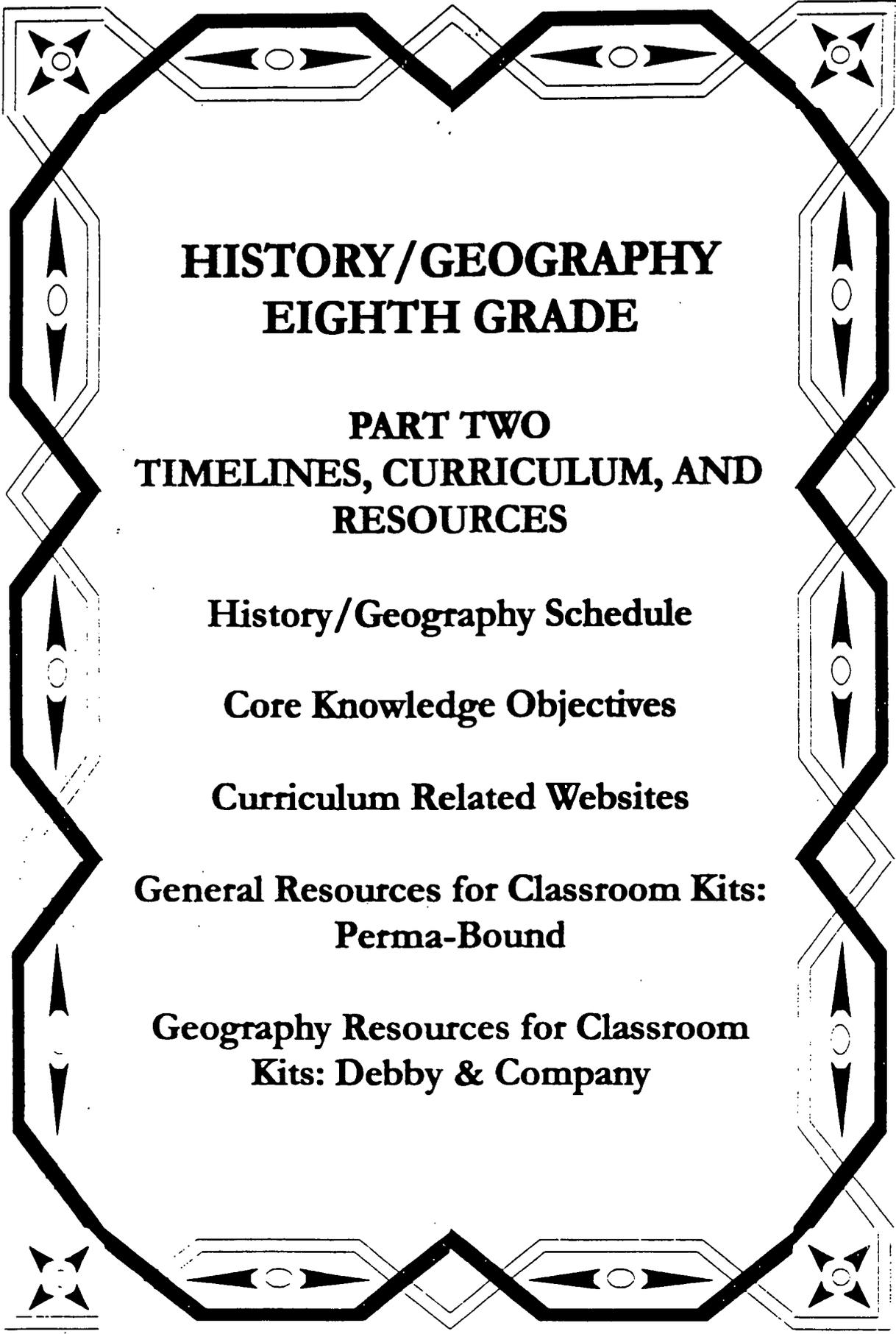
## MEAP WRITING RUBRIC

### Holistic Feature Scoring of Civic Writing: Grades 5 and 8

(Future Reference for MEAP Assessment-Students should understand and begin to practice writing using these rubric guidelines at the fourth grade level. This detailed list was developed by social studies range-finding committees to provide directions for those who will be scoring extended MEAP responses. History and Geography teachers should model this rubric with their writing lessons.)

Points	Description
4	<p>In order to receive a 4-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated position</b> on the issue and support for that position <ul style="list-style-type: none"> <li>- Students should use words such as support/oppose, for/against, agree/disagree, or should/should not</li> <li>- Do not accept those who do not take a stand, who say someone else (parents, school, or government) should decide the issue</li> </ul> </li> <li>• Provide at least one supporting point that is based on the <b>Core Democratic Values</b> of American constitutional democracy <ul style="list-style-type: none"> <li>- Do not accept if this support contradicts state position</li> </ul> </li> <li>• Provide at least one piece of accurate, important, and relevant <b>supporting social studies information</b> that comes from the student's prior knowledge of civics, economics, geography, or history (Information other than that supplied by the Data Section or a Core Democratic Value) <ul style="list-style-type: none"> <li>- Do not accept feelings or opinions for this element</li> <li>- Do not accept if this support contradicts stated position</li> </ul> </li> <li>• Provide at least one piece of accurate, valid, and relevant <b>supporting information from the Data Section</b> <ul style="list-style-type: none"> <li>- Do not accept if this support contradicts stated position</li> <li>- Data interpretations must be more right than wrong</li> </ul> </li> </ul>
3	<p>In order to receive a 3-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated and supported position</b> on the issue</li> <li>• Provide at least one supporting point that is based on <b>Core Democratic Values</b></li> <li>• Contain at least one of the remaining two elements</li> </ul>
2	<p>In order to receive a 2-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly state and supported position</b> on the issue</li> <li>• Contain at least one of the three remaining elements</li> </ul>
1	<p>In order to receive a 1-point score, the response must</p> <ul style="list-style-type: none"> <li>• Give a <b>clearly stated and supported position</b> on the issue</li> </ul>
0	<p>In order to receive a 0-point score, the response will show no evidence of any of the elements</p>

Note: The supporting points used by students must be explained in enough detail to show a clear connection to the position taken (Yes, I support, No, I do not support).



**HISTORY/GEOGRAPHY  
EIGHTH GRADE**

**PART TWO  
TIMELINES, CURRICULUM, AND  
RESOURCES**

**History/Geography Schedule**

**Core Knowledge Objectives**

**Curriculum Related Websites**

**General Resources for Classroom Kits:  
Perma-Bound**

**Geography Resources for Classroom  
Kits: Debby & Company**

**History/Geography - Recommended Schedule**  
**\*Denotes bolded Michigan Social Studies Themes to be studied in**  
**Preparation for the MEAP**  
**Grade 8 – First Semester**

<u>Month</u>	<u>Unit</u>
<u>August</u>	*1763 - French and Indian War: Pontiac's Rebellion
<u>September</u>	
Week 1	*1774 – Causes of the American Revolution: Intolerable Acts
Week 2	*1776 – Principles of Independence: Declaration of Independence
	*1777 – American Revolution: Battle of Saratoga
Week 3	Civics: The Constitution – Principles and Structure of American Democracy
	*1781-89 – Early U.S. Government: Articles of Confederation;
Week 4	U.S. Constitution/ (Overview of the U.S. Constitution)
<u>October</u>	
Week 5	(Bill of Rights; Amendments) *13 <sup>th</sup> , 19 <sup>th</sup> amendments
Week 6	(Legislative Branch)
Week 7	(Executive Branch; Judiciary)
Week 8	*1793 – Technology and Mechanization: Cotton Gin
	*1800 – Competing Visions for the New Nation: Jefferson Vs. Hamilton Debate (strict vs. loose constructionism)
<u>November</u>	
Week 9	*1803 – Expansion: Louisiana Purchase
Week 10	*1823 - World Role of a New Nation: Monroe Doctrine
Week 11	1832 – 48 – Reforms and Expressions of Democracy: Abolition Movement, Women's Rights
Week 12	*1850 – American System and Nationalism: Building of Canal and railroads
<u>December</u>	
Week 13	*1850 – 61 – Causes of the Civil War: Compromise of 1850; Secession of Southern States
Week 14	* 1861 – 65 - Civil War: Emancipation Proclamation (1862)
Week 15	Battle of Gettysburg (1863)
<u>January</u>	
Week 16	Gettysburg Address (1863)
Week 17	* Reconstruction and Civil Rights: (13 <sup>th</sup> ), 14 <sup>th</sup> , 15 <sup>th</sup> amendments
Week 18	Review for MEAP
Week 19	MEAP

**History/Geography - Recommended Schedule**  
**Grade 8 – Second Semester**  
 Include Geography in the Study of Major topics

**February****Week 20**      **The Civil Rights Movement****Week 21****Week 22**      **The Cold War** (Origins of War; The Korean War;  
America in the Cold War)**Week 23****Week 24**      **The Vietnam War and the Rise of Social Activism**

(The Vietnam War; Social and Environmental Activism)

**March****Week 25**      **The Middle East and Oil Politics** (History;

Geography of the Middle East)

**Week 26****Week 27****Week 28****The End of the Cold War: The Expansion of Democracy and  
Continuing Challenges** (American Policy of Détente; Breakup of  
the USSR)**April****Week 29**      **Spring Break****Week 30**      **The Decline of European Colonialism** (Breakup of the British Empire;

Creation of People's Republic of China)

**Week 31****May****Week 32**      **The End of the Cold War: The Expansion of Democracy and  
Continuing Challenges** (China Under Communism;  
Contemporary Europe; The End of Apartheid in South Africa)**Week 33****Week 34****Week 35**      **Geography of Canada and Mexico** (Canada)

(Mexico)

**Week 36****June**

## History and Geography: Grade 8

### I. The Decline of European Colonialism

#### A. BREAKUP OF THE BRITISH EMPIRE

- Creation of British Commonwealth, independence for colonial territories
- Troubled Ireland: Easter Rebellion, Irish Free State
- Indian nationalism and independence
  - Sepoy Rebellion
  - Mahatma Gandhi, Salt March
  - Partition of India into Hindu and Muslim states

- Geography of India and South Asia

##### Overview

Legacy of British colonial rule: English language, rail system

Himalayas, Mt. Everest, K-2

Very high population densities and growth rates, food shortages

Monsoons

Rivers: Ganges, Indus, Brahmaputra

Arabian Sea, Bay of Bengal

Pakistan, Karachi

Bangladesh

Sri Lanka

##### India

Second most populous country after China

Subsistence agriculture

Caste system, "untouchables"

Delhi, Bombay, Calcutta, Madras

Longstanding tension between Hindus and Muslims

## B. CREATION OF PEOPLE'S REPUBLIC OF CHINA

- China under European domination  
Opium Wars, Boxer Rebellion  
Sun Yat Sen
- Communists take power  
Mao Zedong: The Long March  
Defeat of nationalists led by Chiang Kai-Shek  
Soviet-Communist Chinese 30-Year Friendship Treaty
- Geography of China
  - Overview
    - One-fifth of world population
    - 4,000-year-old culture
    - Third largest national territory, regional climates
  - Physical features
    - Huang He (Yellow) River, Chang Jiang (Yangtze) River
    - Tibetan Plateau, Gobi Desert
    - Yellow Sea, East China Sea, South China Sea
    - Great Wall, Grand Canal
  - Social and economic characteristics
    - Major cities: Beijing, Shanghai, Guangzhou (formerly Canton), Shenyang
    - World's largest producer of coal and agricultural products, major mineral producer
    - Off-shore oil reserves
  - Multi-dialectal, including Mandarin, Cantonese
  - Hong Kong, special coastal economic zones
  - Taiwan, Taipei

## II. The Cold War

### A. ORIGINS OF THE COLD WAR

- Post-WWII devastation in Europe, Marshall Plan, Bretton Woods Conference
- Western fear of communist expansion, Soviet fear of capitalist influences
- Truman Doctrine, policy of containment of communism
  - Formation of NATO, Warsaw Pact
  - The "Iron Curtain" (Churchill)
  - Berlin Airlift
  - Eastern European resistance, Hungarian Revolution, Berlin Wall, Prague Spring

### B. THE KOREAN WAR

- Inchon, Chinese entry, removal of MacArthur
- Partition of Korea, truce line near the 38th Parallel

### C. AMERICA IN THE COLD WAR

- McCarthyism, House Unamerican Activities Committee, “witch hunts”  
Hollywood Blacklist  
Spy cases: Alger Hiss, Julius and Ethel Rosenberg
- The Eisenhower Years  
Secret operations, CIA, FBI counterespionage, J. Edgar Hoover, U-2 incident  
Soviet Sputnik satellite, “Missile Gap,” Yuri Gagarin  
Eisenhower’s farewell speech, the “military-industrial complex”
- The Kennedy Years, “Ask not what your country can do for you”  
Attack on organized crime, Robert F. Kennedy  
Cuban Missile Crisis, Fidel Castro, Bay of Pigs invasion  
Nuclear deterrence, “mutual assured destruction,” Nuclear Test Ban Treaty  
Kennedy assassination in 1963, Lee Harvey Oswald, Warren Commission
- Space exploration, U.S. moon landing, Neil Armstrong
- American culture in the 1950s and 1960s  
Levittown and the rise of the suburban lifestyle, automobile-centered city planning  
Influence of television  
Baby Boom generation, rock and roll, Woodstock festival, 26th Amendment

### III. The Civil Rights Movement

- Segregation
  - Plessy v. Ferguson*, doctrine of “separate but equal”
  - “Jim Crow” laws
- Post-war steps toward desegregation
  - Jackie Robinson breaks color barrier in baseball
  - Truman desegregates Armed Forces
  - Adam Clayton Powell, Harlem congressman
  - Integration of public schools: *Brown v. Board of Education* (1954), Thurgood Marshall
- Montgomery Bus Boycott, Rosa Parks
- Southern “massive resistance”
  - Federal troops open schools in Little Rock, Arkansas
  - Murder of Medgar Evers
  - Alabama Governor George Wallace “stands in schoolhouse door”
- Nonviolent challenges to segregation: “We shall overcome”
  - Woolworth lunch counter sit-ins
  - Freedom riders, CORE
  - Black voter registration drives
  - Martin Luther King, Jr.
  - Southern Christian Leadership Conference
  - March on Washington, “I have a dream” speech
  - “Letter from Birmingham Jail”
  - Selma to Montgomery March
- President Johnson and the civil rights movement
  - The Great Society, War on Poverty, Medicare
  - Civil Rights Act of 1964, Voting Rights Act of 1965, affirmative Action
- African American militance
  - Malcolm X
  - Black Power, Black Panthers
  - Watts and Newark riots
- Assassinations of Martin Luther King, Jr. and Robert F. Kennedy

#### IV. The Vietnam War and the Rise of Social Activism

##### A. THE VIETNAM WAR

- French Indochina War: Dien Bien Phu, Ho Chi Minh, Viet Cong
- Domino Theory
- U.S. takes charge of the war, Special Forces, Tonkin Gulf Resolution
- Tet Offensive, My Lai Massacre
- Antiwar protests, Kent State, The Pentagon Papers, “hawks” and “doves”
- American disengagement, Nixon’s “Vietnamization” policy, Kissinger, War Powers Act
- Watergate scandal, resignation of Nixon
- Vietnam, Hanoi, Ho Chi Minh City (formerly Saigon)

##### B. SOCIAL AND ENVIRONMENTAL ACTIVISM

- Feminist movement, “women’s liberation”  
Betty Friedan, National Organization for Women  
*Roe v. Wade*  
Failure of the Equal Rights Amendment
- Cesar Chavez, United Farm Workers
- American Indian Movement  
Second Wounded Knee  
Federal recognition of Indian right to self-determination
- Emergence of environmentalism  
Rachel Carson, *Silent Spring*  
Environmental Protection Agency, Endangered Species Act,  
Clean Air and Water Acts  
Disasters such as Love Canal, Three Mile Island, Chernobyl,  
Exxon Valdez

#### V. The Middle East and Oil Politics

##### A. HISTORY

- League of Nations’ territorial mandates in Middle East
- Creation of Israel in 1948, David Ben-Gurion
- Suez Crisis, Gamal Abal Nasser
- Palestine Liberation Organization, Yassar Arafat
- Arab-Isreali Wars  
Six-Day War, Israel occupies West Bank, Gaza Strip, Golan Heights  
Yom Kippur War, OPEC oil embargo
- Camp David Peace Treaty
- Islamic fundamentalism, Iranian hostage crisis, Iran-Iraq War
- Persian Gulf War

## B. GEOGRAPHY OF THE MIDDLE EAST

- Overview
  - Heartland of great early civilizations, Nile River, Mesopotamia, "Fertile Crescent"
  - Generally hot, arid conditions with thin, poor soils
  - Generally speak Arabic, except in Turkey (Turkish), Israel (Hebrew), Iran (Persian)
  - Predominant religion is Islam
  - Sunni and Shiite sects
  - Principal holy places: Makkah (also spelled Mecca) and Medina in Saudi Arabia
- Oil: world's most valuable commodity
  - Greatest known oil reserves concentrated around the Persian Gulf
  - Strait of Hormuz, shipping routes and national imports
  - Extraction of Arab oil required Western technology, which introduced competing cultural influences to Islam
- Egypt
  - Most populous Arab country
  - Nile River and delta, surrounded by inhospitable deserts
  - Aswan Dam, Lake Nasser
  - Cairo (largest city in Africa), Alexandria
  - Suez Canal, Sinai Peninsula, Red Sea
- Israel
  - Formed by the United Nations in 1948 as homeland for Jewish people
  - Jerusalem: Holy city for Judaism (Wailing Wall, Temple Mount), Christianity (Church of the Holy Sepulcher), and Islam (Dome of the Rock)
  - Tel Aviv, West Bank, Gaza Strip, Golan Heights
  - Jordan River, Sea of Galilee, Dead Sea (lowest point on earth), Gulf of Aqaba
- Middle East states and cities
  - Lebanon: Beirut
  - Jordan: Amman
  - Syria: Damascus
  - Iraq: Baghdad
    - Kurdish minority population (also in Turkey and Iran)
  - Iran: Tehran
  - Kuwait
  - Saudi Arabia: Riyadh, Makkah
- Turkey
  - Istanbul (formerly Constantinople)
  - Bosporus, Dardanelles
  - Ataturk Dam controls upper Euphrates River

## VI. The End of the Cold War: The Expansion of Democracy and Continuing Challenges

### A. THE AMERICAN POLICY OF DÉTENTE

- Diplomatic opening to China
- Strategic Arms Limitation Talks
- Jimmy Carter's human rights basis for diplomacy

### B. BREAKUP OF THE USSR

- History
  - Arms race exhausts USSR economy, Afghanistan War
  - Helsinki Accord on human rights, Andrei Sakharov
  - Mikhail Gorbachev
  - Solidarity labor movement, Lech Walesa
  - Reunification of Germany, demolition of the Berlin Wall
- Geography
  - Consequences of the breakup of the Soviet Union
    - New European states from former Soviet Union:
      - Belarus, Latvia, Lithuania, Moldova, Ukraine
    - Newly independent Muslim states in Asia (with ethnic Russian minorities):
      - Kazakhstan, Kyrgyzstan, Turkmenistan, Uzbekistan
    - Caucasus, mountainous region where Western and Islamic cultures meet:
      - Armenia, Azerbaijan, Georgia
- Legacies of Soviet policies
  - Numerous internal republics, many language distinctions
  - Forced relocation of large numbers of ethnic minorities
  - Environmental poisoning from industrial and farm practices

### C. CHINA UNDER COMMUNISM

- The Cultural Revolution
- Tiananmen Square

**D. CONTEMPORARY EUROPE**

- Toward European unity
  - European Economic Community, "Common Market"
  - European Parliament, Brussels, Maastricht Treaty on European Union
  - France linked to Britain by the Channel Tunnel ("Chunnel")
- Conflict and change in Central Europe
  - Geography of the Balkan region
    - Ethnically fragmented, mixture of languages and religions
    - Mountainous region, Danube River
    - Seas: Adriatic, Ionian, Black, Aegean, Mediterranean
  - Romania, Bulgaria, Greece, Albania
  - Countries that emerged from the breakup of Yugoslavia: Slovenia, Croatia, Bosnia and Herzegovina, Macedonia
  - "Balkanization"

**E. THE END OF APARTHEID IN SOUTH AFRICA**

- Background
  - British and Dutch colonialism in South Africa, Cecil Rhodes, Afrikaners
  - African resistance, Zulu wars, Shaka
  - Boer Wars
  - Union of South Africa, majority nonwhite population but white minority rule
  - Apartheid laws
- African National Congress
  - Nelson Mandela
- Internal unrest and external pressures (such as economic sanctions) force South Africa to end apartheid, Mandela released

## VII. Civics: The Constitution—Principles and Structure of American Democracy

- Overview of the U.S. Constitution
  - James Madison
  - Founders' view of human nature
  - Concept of popular sovereignty, the Preamble
  - Rule of law
  - Separation of powers
  - Checks and balances
  - Enumeration of powers
  - Separation of church and state
  - Civilian control of the military
- Bill of Rights
  - Amendments protecting individual rights from infringement (1-3)
  - Amendments protecting those accused of crimes (5-8), Miranda ruling
  - Amendments reserving powers to the people and states (9 and 10)
  - Amendment process
  - Amendments 13 and 19
- Legislative branch: role and powers of Congress
  - Legislative and representative duties
  - Structure of the Congress, committee system, how a bill is passed
  - Budget authority, "power of the purse"
  - Power to impeach the president or federal judge
- Executive branch: role and powers of the presidency
  - Chief executive, cabinet departments, executive orders
  - Chief diplomat, commander-in-chief of the armed forces
  - Chief legislator, sign laws into effect, recommend laws, veto power
  - Appointment power, cabinet officers, federal judges
- Judiciary: Supreme Court as Constitutional interpreter
  - Loose construction (interpretation) vs. strict construction of U.S. Constitution
  - Concepts of due process of law, equal protection
  - Marbury v. Madison*, principle of judicial review of federal law, Chief Justice John Marshall

## VIII. Geography of Canada and Mexico

- Canada
  - The ten provinces and two territories, Nunavut (self-governing American Indian homeland), Ottawa
  - St. Lawrence River, Gulf of St. Lawrence, Grand Banks, Hudson Bay, McKenzie River, Mt. Logan
  - Two official languages: English and French, separatist movement in Quebec
  - Montreal, Toronto, Vancouver, most Canadians live within 100 miles of U.S.
  - Rich mineral deposits in Canadian Shield, grain exporter
  - U.S. and Canada share longest open international boundary, affinities between neighboring U.S. and Canadian regions
  - North American Free Trade Agreement (NAFTA)
- Mexico
  - Mexico City: home of nearly one-quarter of population, vulnerable to earthquakes
  - Guadalajara, Monterrey
  - Sierra Madre Mountains, Gulf of California, Yucatan Peninsula
  - Oil and gas fields
  - Rapid population growth rate
  - North American Free Trade Agreement (NAFTA), Maquiladoras

**CURRICULUM RELATED WEBSITES****Michigan Department of Education**<http://www.mde.state.mi.us/>**MEAP Released Items**[http://www.meritaward.state.mi.us/  
merit/meap/questions/index.htm](http://www.meritaward.state.mi.us/merit/meap/questions/index.htm)**Michigan Curriculum Framework**<http://cdp.mde.state.mi.us>**Social Studies Assessment Models****(in Acrobat 3.0)**<http://cdp.mde.state.mi.us/Assessment/model5.pdf><http://cdp.mde.state.mi.us/Assessment/model8.pdf><http://cdp.mde.state.mi.us/Assessment/model11.pdf>**Authentic Assessment of Social Studies**[http://cdp.mde.state.mi.us/SocialStudies/MI\\_Auth.AssmtMan.pdf](http://cdp.mde.state.mi.us/SocialStudies/MI_Auth.AssmtMan.pdf)**Bruce** = [bbrousseau@ed.mde.state.mi.us](mailto:bbrousseau@ed.mde.state.mi.us)**Karen** = [ktodorov@cdp.mde.state.mi.us](mailto:ktodorov@cdp.mde.state.mi.us)

## GENERAL RESOURCES FOR CLASSROOM KITS

### Perma-Bound Books

\*Denotes suitability for ordering for students in classroom sets... at student readability levels

#### GRADE 8

##### HISTORY & GEOGRAPHY: Breakup of the British Empire

8	92040 Everest	\$18.90
8	113691 Gandhi	\$18.60
8	113693 Gandhi, Great Soul	\$19.90
8	113715 Ganges Delta And Its People	\$28.21
8	154831 India	\$29.21
8	154834 India: From Mughal Empire To British Raj	\$18.60
8	154821 India: The Land	\$13.60
8	186876 Mahatma Gandhi And India's Independence In World History	\$23.90
8	250698 Red Sea And The Arabian Gulf	\$28.21
8	282119 Sri Lanka (Cultures Of The World) (Original Publisher's Binding)	\$35.64

##### HISTORY & GEOGRAPHY: Creation of People's Republic of China

8	5910 Age Of Calamity: A.D. 1300-1400	\$23.90
8	13236 Ancient China	\$19.90
8	52304 China	\$30.55
8	52288 China: The Land	\$13.60
8	92040 Everest	\$18.90
8	228179 Pacific Rim: East Asia At The Dawn Of A New Century	\$28.85
8	231821 People's Republic Of China (Original Publisher's Binding)	\$32.00
8	245700 Pulse Of Enterprise: A.D. 1800-1850	\$23.90
8	250692 Red Scarf Girl: A Memoir Of The Cultural Revolution	\$11.60
8	254245 River At The Center Of The World: A Journey Up The Yangtze And Back In Chinese Time	\$20.60
8	304204 Top Of The World: Climbing Mount Everest	\$19.95
8	126449 Great Wall	\$23.90
8	139090 Hong Kong (Original Publisher's Binding)	\$26.00
8	228179 Pacific Rim: East Asia At The Dawn Of A New Century	\$28.85
8	291629 Taiwan (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	334430 Wonders Of The Ancient World	\$16.90

##### HISTORY & GEOGRAPHY: Origins of the Cold War

8	56966 Cold War: The American Crusade Against World Communism, 1945-1991	\$19.95
8	84083 Dwight D. Eisenhower	\$24.90
8	131583 Harry S. Truman (Original Publisher's Binding)	\$25.00

##### HISTORY & GEOGRAPHY: The Korean War

8	9632 America In The Korean War	\$32.85
8	172617 Korean War	\$27.85
8	172618 Korean War: The Forgotten War	\$22.90

##### HISTORY & GEOGRAPHY: America in the Cold War

8	221119 One Hell Of A Gamble: Khrushchev	\$20.60
8	10100 American Dream: The 50s	\$23.90
8	16682 Apollo 11: First Moon Landing	\$22.90
8	16681 Apollo Moonwalks: The Amazing Lunar Missions	\$22.90
8	16698 Apollo To The Moon	\$19.60
8	56966 Cold War: The American Crusade Against World Communism, 1945-1991	\$19.95
8	84083 Dwight D. Eisenhower	\$24.90
8	84084 Dwight D. Eisenhower, John F. Kennedy, Lyndon B. Johnson	\$24.85
8	84729 Earl Warren: Chief Justice For Social Change	\$21.90
8	122953 First Men In Space	\$19.60
8	189276 Man On The Moon	\$19.90
8	193343 McCarthy And The Fear Of Communism In American History	\$23.90

## HISTORY &amp; GEOGRAPHY: The Civil Rights Movement

8	40760	Brown Vs. Board Of Education: Equal Schooling For All	\$24.90
8	84084	Dwight D. Eisenhower, John F. Kennedy, Lyndon B. Johnson	\$24.85
8	148664	I Have A Dream: The Life And Words Of Martin Luther King, Jr.	\$18.60
8	149285	I Never Had It Made: An Autobiography	\$18.65
8	160654	Jackie Robinson	\$18.60
8	160669	Jackie Robinson Reader: Perspectives On An American Hero With Contributions By Roger Kahn...	\$19.60
8	160668	Jackie Robinson: Baseball's Civil Rights Legend	\$22.90
8	176400	Life And Death Of Martin Luther King	\$11.60
8	152167	Martin Luther King, Jr.	\$26.40
8	191799	Martin Luther King, Jr. And The Freedom Movement	\$14.60
8	235110	Pillar Of Fire: America In The King Years, 1963-65	\$22.65
8	236657	Plessy V. Ferguson: Separate But Equal?	\$22.90
8	241150	Preacher King: Martin Luther King, Jr. And The Word That Moved America	\$21.60

## HISTORY &amp; GEOGRAPHY: The Vietnam War

8	252589	Richard M. Nixon, Jimmy Carter, Ronald Reagan	\$23.85
8	266145	Sensational Trials Of The 20th Century	\$20.90
8	315890	Vietnam Antiwar Movement In American History	\$23.90
8	315881	Vietnam War	\$27.85
8	315894	Vietnam War	\$29.63
8	315873	Vietnam War (Opposing Viewpoints)	\$21.85
8	320328	Watergate Scandal In American History	\$22.90

## HISTORY &amp; GEOGRAPHY: Social and Environmental Activism

8	73807	Dennis Banks: Native American Activist	\$23.90
8	99897	Fight In The Fields: Cesar Chavez & The Farmworkers Movement	\$18.95
8	256451	Roe v. Wade: The Abortion Question	\$21.90
8	271115	Silent Spring	\$19.65

## HISTORY &amp; GEOGRAPHY: The Middle East and Oil Politics - History

8	17035	Arab-Israeli Conflict	\$31.06
8	158987	Israel And The Arab Nations In Conflict	\$31.07
8	196315	Middle East: In Search Of Peace	\$27.35
8	196467	Mideast After The Gulf War	\$12.60
8	232724	Persian Gulf War: The Mother Of All Battles	\$23.90

## HISTORY &amp; GEOGRAPHY: Geography of the Middle East - Overview

8	13257	Ancient Civilizations: 3000 BC - AD 500	\$28.90
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## HISTORY &amp; GEOGRAPHY: Geography of Egypt

8	86981	Egypt	\$29.21
8	86975	Egypt (Major World Nations)	\$17.90

## HISTORY &amp; GEOGRAPHY: Geography of Israel

8	158973	Israel (Original Publisher's Binding)	\$32.00
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## HISTORY &amp; GEOGRAPHY: Geography of the Middle East

8	157807	Iran (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	157803	Iraq (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	157802	Iraq (Original Publisher's Binding)	\$32.00
8	164522	Jordan (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	172812	Kuwait (Original Publisher's Binding)	\$32.00
8	174898	Lebanon (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	260726	Saudi Arabia (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	260725	Saudi Arabia (Major World Nations)	\$17.90
8	291415	Syria (Cultures Of The World) (Original Publisher's Binding)	\$35.64

**HISTORY & GEOGRAPHY: Geography of Turkey**

8	307460 Turkey (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	307479 Turkey (Major World Nations)	\$17.90

**HISTORY & GEOGRAPHY: The American Policy of Détente**

8	199846 Modern World History: International Relations From The First World War To The Present	\$25.60
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**HISTORY & GEOGRAPHY: Breakup of the USSR**

8	92009 Events That Shaped The Century	\$23.90
8	130389 Handbook Of The Former Soviet Union	\$37.35
8	172665 Kremlin Coup	\$12.60
8	252589 Richard M. Nixon, Jimmy Carter, Ronald Reagan	\$23.85
8	27102 Belarus (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	177843 Lithuania (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	309939 Ukraine (Cultures Of The World) (Original Publisher's Binding)	\$35.64

**HISTORY & GEOGRAPHY: China Under Communism**

8	52305 China (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	231821 People's Republic Of China (Original Publisher's Binding)	\$32.00

**HISTORY & GEOGRAPHY: Contemporary Europe**

8	6922 Albania (Original Publisher's Binding)	\$32.00
8	22220 Balkan Odyssey	\$20.65
8	41705 Bulgaria (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	56987 Collapse Of Communism In Eastern Europe	\$31.06
8	91802 Europe	\$27.35
8	91804 Europe (Current Controversies)	\$21.85
8	126692 Greece (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	256997 Romania (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	266600 Serbia (Original Publisher's Binding)	\$32.00

**HISTORY & GEOGRAPHY: The End of Apartheid in South Africa**

8	16498 Apartheid: Calibrations Of Color	\$14.60
8	89533 End Of Apartheid	\$31.06
8	211720 Nelson Mandela, No Easy Walk To Freedom	\$10.15
8	277936 South Africa (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	278936 South Africa (Major World Nations)	\$17.90
8	277927 South Africa (Original Publisher's Binding)	\$32.00
8	341729 Zulu	\$19.90

**HISTORY & GEOGRAPHY: The Constitution**

8	62782 Constitution Of The United States	\$23.90
8	62862 Constitutional Amendments	\$22.85
8	63716 Creating The Constitution, 1787	\$23.90
8	71517 Declaration Of Independence And The Constitution Of The United States	\$8.60
8	153282 In Our Defense. The Bill Of Rights In Action	\$19.15
8	161122 James Madison	\$23.90
8	161294 James Madison (Original Publisher's Binding)	\$25.00
8	192682 Marbury V. Madison: Powers Of The Supreme Court	\$22.90
8	226147 Our Changing Constitution: How And Why We Have Amended It	\$26.85
8	243331 Presidency Of The United States	\$22.90
8	292367 Supreme Court Of The United States	\$21.90

**HISTORY & GEOGRAPHY: Geography of Canada**

8	44072 Canada (Major World Nations)	\$17.90
8	221122 Montreal (Original Publisher's Binding)	\$26.00
8	247947 Quebec	\$16.60
8	269527 Short History Of Canada (Rev. Ed.)	\$21.60

**HISTORY & GEOGRAPHY: Geography of Mexico**

8	196095 Mexico (Cultures Of The World) (Original Publisher's Binding)	\$35.64
8	195870 Mexico (Original Publisher's Binding)	\$33.00
8	195881 Mexico: Biography Of Power: A History Of Modern Mexico 1810-1996	\$27.65

**GENERAL RESOURCES: WORLD HISTORY & GEOGRAPHY**

GR	272985 16th Century Mosque	\$22.90
GR	13223 Ancient China (Original Publisher's Binding)	\$19.99
GR	13235 Ancient Egypt (Original Hardcover Binding)	\$19.99
GR	13254 Ancient Greece (Original Hardcover Binding)	\$19.99
GR	13462 Ancient Rome (Original Hardcover Binding)	\$19.99
GR	20940 Aztecs (Original Publisher's Binding)	\$19.99
GR	51987 *Children's Atlas Of Civilizations	\$20.60
GR	87025 Egyptian Pyramid	\$16.60
GR	111319 Frontier Fort On The Oregon Trail	\$16.60
GR	114860 *Geography From A To Z: A Picture Glossary	\$12.60
GR	126935 Greek Temple	\$22.90
GR	153663 Incas (Original Publisher's Binding)	\$16.99
GR	171644 Kingfisher Book Of The Ancient World	\$19.90
GR	190553 Maps And Globes	\$12.60
GR	193890 Medieval Castle	\$16.60
GR	193900 Medieval Knights (Original Publisher's Binding)	\$17.99
GR	196285 Middle Ages (Original Hardcover Binding)	\$19.99
GR	213280 New Puffin Children's World Atlas: An Introductory Atlas For Young People	\$12.64
GR	251555 Renaissance (Original Publisher's Binding)	\$19.99
GR	256966 Roman Fort	\$22.90
GR	268538 Shakespeare's Theater	\$22.90
GR	289266 Submarines & Ships (Original Publisher's Binding)	\$17.99
GR	316698 *Visual Dictionary Of The Earth	\$22.90
GR	334440 Wonders Of The World	\$13.60
GR	335636 World War Two Submarine	\$22.90
GR	337740 Young People's Atlas Of The United States	\$25.90

**GENERAL RESOURCES: AMERICAN HISTORY & GEOGRAPHY**

GR	12092 American Reader: Words That Moved A Nation	\$25.65
GR	42916 Buck Stops Here: The Presidents Of The United States	\$15.65
GR	050816 Cherokees: A First Americans Book	\$20.90
GR	050869 Cheyennes: A First Americans Book	\$19.90
GR	57029 Colony Of Fear	\$14.15
GR	71200 Debt	\$14.15
GR	89522 *Encyclopedia Of Native America	\$28.95
GR	107462 Fortune In Men's Eyes	\$14.15
GR	111279 From Sea To Shining Sea	\$33.90
GR	132396 Hand In Hand: An American History Through Poetry	\$23.95
GR	139335 Hopis: A First Americans Book	\$20.90
GR	157627 Iroquois: A First Americans Book	\$20.90
GR	192852 Matter Of Pride	\$14.60
GR	212572 Navaho	\$20.90
GR	272368 Sioux	\$20.90
GR	281289 Splendid Little War	\$13.60
GR	295635 Test Of Loyalty	\$13.60
GR	329225 Two Kinds Of Patriots	\$14.15

**GEOGRAPHY RESOURCES FOR CLASSROOM KITS**

Debbly &amp; Company

**GRADE SEVEN (All supplies, except (#), should be ordered for each classroom at this grade level.****(#) Denotes a resource which may be shared by all teachers at this grade level.)****(\* Denotes suitability for ordering for students in classroom sets...at student readability levels.)**

<b>Order #</b>	<b>Description</b>	<b>Price</b>
IF8554	(#) Blank Map Outlines	\$9.99
CD-3092	World Map - Labeled (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3093	World Map - Blank (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3090	U.S. Map - Labeled (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
CD-3091	U.S. Map - Blank (Jumbo Map Pads... 1 pkg. of 30)	\$4.99
T-1088	World Map (Wipe-Off Map)	\$2.99
T-1087	United States Map (Wipe-Off Map)	\$2.99
T-593	Regular Wipe-Off Crayons (8 colors)	\$1.79
FS-37033	The Continents Charts	\$7.95
McP111	Map and Globe Skills Teaching Posters	\$7.95
UM-FR227	*World Atlas	\$3.95
BH-95224	Reading Maps & Graphs (Geography Flip-Overs)	\$6.75
BH-95223	World Geography (Geography Flip-Overs)	\$6.75
Scpb 341723	(#) Everything You Need to Know About Geography Homework	\$8.95
FS10622	(#) Geography For Everyday	\$9.95
IF8751	(#) U.S. & World Map Skills	\$10.99
IF8201	Comprehensive World Reference Guide	\$22.99
IF87031	(#) Symbols of a Great Nation	\$10.99

# **SPECIAL EDUCATION**

**The Policy**  
**The Individual Education Plan (IEP)**  
**Role of the Special Education**  
**Building Coordinator**  
**The Child Study Team**  
**Evaluations**  
**Inclusion of Students with Disabilities**  
**Parent Participation**  
**Individuals with Disabilities Education**  
**Act (IDEA)**



## Special Education

### **The Policy**

It is the policy of the National Heritage Academies to provide special education services within each academy. All students with special needs have the right to a quality education appropriate to their needs, abilities and interest. It is the goal of the special education staff to act as a resource to the classroom teacher in the development and implementation of appropriate instructional and socialization strategies. Implementation of these strategies will occur within the general education setting and through one-on-one and small-group remediation.

### **The Individual Education Plan (IEP)**

All National Heritage Academies campuses comply with all federal and state legal requirements that every student identified as having a disability be provided an Individual Educational Program (IEP) specifying goals, level of service, ancillary services and the least restrictive placement. Prior to the opening of school, registration forms are scanned to identify current IEPs from previous schools attended. The parents are fully informed of their rights, procedures and responsibilities under special education law.

### **Role of the Special Education Building Coordinator**

- Form a partnership with the classroom teacher to develop appropriate instructional practices to meet student needs
- Act as a resource to the classroom teacher in the development, implementation and monitoring of specialized or modified programs
- Provide direct instruction to individuals or groups of students in the classroom as well as in the Resource Room setting
- Administer formal and informal educational assessments
- Interpret the results of assessments, observations and consultations to develop appropriate programming strategies
- Facilitate effective communication with students, parents, teachers, administration, special education support staff and community based agencies
- Share up-to-date professional information regarding special education
- Receive referrals directed to the Child Study Team
- Coordinate and lead Child Study Team meetings

### **Special Education Personnel**

All special education teachers have the proper certification. Our ancillary staff consists of speech and language pathologists, social workers, psychologists, and occupational therapists.

### **The Child Study Team**

The Child Study Team (CST) is a committee of school personnel set up by the principal to ensure ongoing and effective support for classroom teachers and students. The special education teacher co-chairs the school's team in cooperation with the building administrator. The team provides a forum to discuss students' academic and behavior needs and to generate, initiate and monitor solutions that marshal the resources of the school, the family and the community. This process creates an awareness and understanding of the issues affecting the student. The team acts as a pre-referral intervention-planning group for those "unidentified" students whose difficulties may suggest the presence of a disability. As appropriate, the team may refer a student for a formal assessment for special education. Parents should be informed if their child is being considered by the Child Study Team, and parental permission must be obtained prior to any formal assessment of that student.

### **Evaluations**

Special education students are subject to an annual review and a three-year reevaluation. At their annual reviews and three-year reevaluations, parents and teachers go over the protocols appropriate to the given student, and make clear decisions as to the programming for this student. Parents are informed of student progress a minimum of four times per year at quarterly marking periods. Progress is also shared through telephone calls, written information/feedback, and personal contacts.

### **Inclusion of Students with Disabilities**

National Heritage Academies is committed to the fullest level of inclusion deemed possible and appropriate by our professional team of general and special educators, administrators, and ancillary-support staff. Our goal is to educate each student in the least restrictive environment possible based on a student's individual needs.

### **Parent Participation**

Parents/legal guardians have the *expressed right* to participate in all meetings dealing with the evaluation, identification, and educational placement of their child. Information concerning a child will be requested of his/her parents/guardians during the child study process and the parent's/guardian's presence will be requested for all subsequent meetings. Parents/legal guardians are considered members of both the Multi-Disciplinary Evaluation Team (MET) and the Individual Education Programming Team (IEPT).

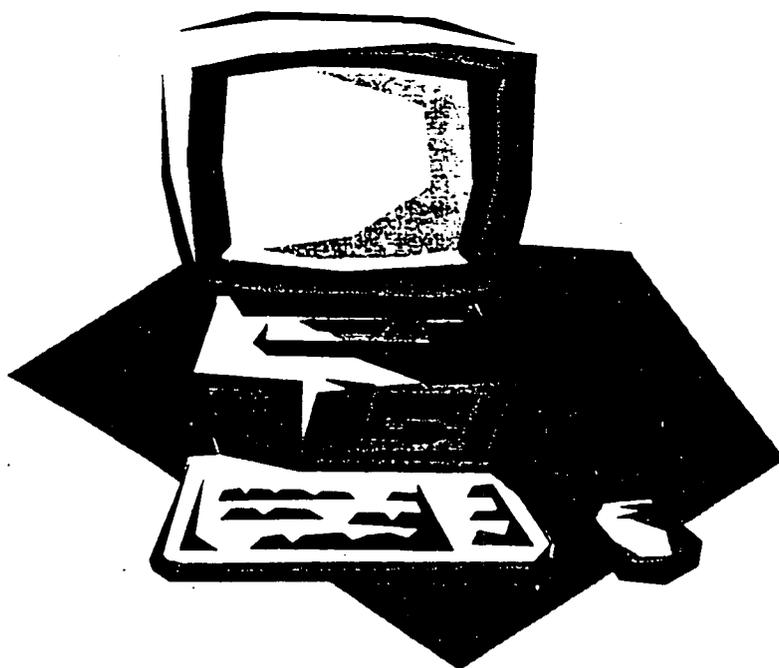
### **Individuals with Disabilities Education Act (IDEA)**

National Heritage Academies are in step with the major changes in special education. The six principles of the new laws are:

- Free appropriate public education
- Appropriate evaluation
- Individualized education program (IEP)
- Least restrictive environment (LRE)
- Parent and student participation in decision making
- Procedural safeguards

# **TECHNOLOGY EIGHTH GRADE**

**Technology—Educational Philosophy  
Content Standards Grade 8  
Scope and Sequence of  
Content Standards Grades 3-8**



## **Educational Technology Philosophy**

The National Assessment of Educational Progress (NAEP) has tracked student achievement for nearly three decades. In 1996, the results of the NAEP indicated a link between certain kinds of technology use, higher scores on the NAEP, and an improved school climate.<sup>1</sup> It is important to note that not all types of technology use produced these results. In fact, the results indicated that the use of computers for "drill and practice" may result in decreased student scores. The technology use that proved most beneficial centered on using the computer for simulation, problem solving and analysis. "The computer's most powerful uses are for making things visual," says James Kaput, a math professor at the University of Massachusetts-Dartmouth. "It can make visual abstract processes that that are otherwise ineffable."

As an organization, NHA focuses on delivering a "back to basics" approach to education based on research to generate student performance results. NHA's philosophy is grounded in the premise that the primary educational focus in elementary school should be mastering the core academic subjects of English, reading, mathematics, history, and science. Use of technology within the framework of the core academic curriculum must be age appropriate and must enhance the learning process. Just as writing relies on penmanship as a requisite skill, students and teachers must develop requisite skills in the use of technology in order to maximize its curricular impact. Students will develop these skills in the context of using technology for academic pursuits. Teachers will develop technology skills through training, practice, and ongoing assessment.

## **Developing Technology Skills**

NHA's core academic curriculum is extremely rigorous and focuses on developing the fundamental skills, attitudes, and background knowledge that will allow students to be successful in all future pursuits. Specific technology skills are most effectively learned in the context of the core curriculum. Just as science teachers have taught their students to use a microscope in order to view cells, basic technology skills, such as using a scanner, are best taught in the context of developing a Web page or creating a portfolio. However, NHA will develop a specific technology curriculum to ensure the acquisition of computer skills.

NHA's approach to the curriculum is built upon the premise that a child's long-term academic success is directly related to the strength of the foundation upon which it is built. This belief provides a central core for the entire NHA curriculum. With this in mind, the school calendar and schedule focuses primarily on the development of this foundation in the core academic subjects. Once this foundation is laid, the learner benefits in all curricular areas.

In alignment with this core belief, NHA approaches the formal computer training very deliberately. While computers can be used in grades K-2 to enhance the delivery/experience of the student in the academic areas, no formal computer training is addressed during these formative years. A student's time in school is so valuable that computer training at these early ages would supersede a more fundamental element of the child's education. Students in grades K-2 may acquire technology skills as a by-product of the technology use within the curriculum. Formalized computer training will begin to be addressed by the classroom teacher beginning in grade 3. During the upper elementary years (grades 3-5), time is carved out of the school day to help students develop specific skills as they align with state and national standards. In most NHA affiliated schools, a computer elective course is offered in grades 6-8. During this set of courses, more advanced computer skills are taught and students are asked to apply these skills in increasingly unique and meaningful ways. Teachers in grades 6-8 will continue to include the development of computer skills into the classroom and students will be expected to apply these skills appropriately to enhance their learning.

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<sup>1</sup>"The Link to Higher Scores". Andrew Trotter. Education Week, October 1, 1998.

This technology curriculum is based on both state and national standards. Specific lessons and assessments related to computer skill acquisition will be developed through a cooperative effort between the NHA Educational Technology team and the NHA Curriculum team.

### **Integrating Technology with the Curriculum**

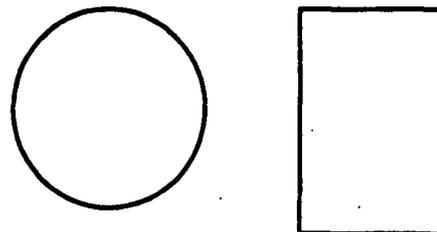
Although the time dedicated to acquire computer-specific skills is not equally distributed throughout the various grade levels, the underlying philosophy regarding technology use to enhance instruction is constant. In addition to developing materials that address both content standards and technology competencies, NHA is committed to the electronic delivery of content and supporting materials that aid in the delivery of curricula.

To achieve this goal of integration, NHA will develop a comprehensive curriculum map that includes specific teacher and student resources that tie technology with the core content areas in meaningful and substantive ways. A library of technology projects will be developed that connect specific curriculum objectives with technology skills. As a result, each teacher will be able to develop the tools necessary to integrate the acquisition of these skills into the academic curricula.

Over the course of the 2000-2001 school year, the Educational Technology Team, in conjunction with NHA teachers, has developed over 300 lessons, units and projects that integrate the technology curriculum into other curricular areas. These resources span all subject areas and grade levels and are made available to all NHA teachers in electronic form. Through the implementation of this technology plan, it is NHA's vision that this development will continue and lessons, units, projects, and other resources will continue to be made available to all NHA teachers that tie the technology curriculum into other curricular areas. The following is an example of a lesson that integrates technology objectives within other curricular areas.

A class is about to begin a unit on fractions within the fourth grade math curriculum. The teacher works with the Educational Technology Specialist to develop a lesson where students are to divide certain shapes into sections and then color the sections to depict a given fraction. The lesson will be done using a paint/draw program on the computer. See the example below:

1. Use the paint tools to divide the following shapes into fourths.
2. Use the paint tools to color the sections of each object to show the following:
  - a. Circle:  $\frac{3}{4}$
  - b. Rectangle:  $\frac{1}{4}$



The teacher will spend a small amount of time at the beginning of the lesson to explain how to use the paint/draw program, but the primary focus of the lesson will be focused on getting a better understanding of fractions. This lesson ties together many of the technology curriculum's paint/draw program objectives as well as many of the fraction objectives found in the mathematics curriculum.

Grade Levels	Computer Skill Acquisition	Technology-Infused Delivery of Instruction
K - 2	<p>No instructional time is devoted to computer skill development.</p> <p><b>Resources:</b> None</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity</p>
3 - 5	<p>Instructional time is devoted to developing specific technology skills such as:</p> <ol style="list-style-type: none"> <li>1. Computer operations</li> <li>2. File management</li> <li>3. Word processing</li> <li>4. Keyboarding</li> <li>5. Presentation tools</li> <li>6. Spreadsheet use</li> <li>7. Database basics</li> <li>8. Internet use &amp; responsibilities</li> </ol> <p><b>Resources:</b> Some significant student access to computer required. Classroom teacher will be responsible for the delivery of this instruction. Curriculum to be developed and supplied by NHA.</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p>Students use computers to develop materials, complete assessments, or engage in simulations. Work can be individual, in pairs, or in small groups.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity Some significant student access to computers required.</p>
6 - 8	<p>Instructional time in the middle school "Media / Technology" elective course is devoted to developing specific technology skills such as:</p> <ol style="list-style-type: none"> <li>1. Digital imaging</li> <li>2. Digital audio</li> <li>3. Desktop publishing</li> <li>4. Presentation</li> <li>5. Basics of good design</li> <li>6. Web page authoring</li> <li>7. Application integration</li> <li>8. Internet use</li> </ol> <p><b>Resources:</b> Some significant student access to computer required. Classroom teacher will be responsible for the delivery of this instruction. Curriculum to be developed and supplied by NHA.</p> <p>It is desirable to place some computers permanently in each middle school classroom to achieve a fully integrated environment</p>	<p>Teachers use LCD projectors to model the use of technology, present information in engaging ways, and utilize the Internet in whole-group settings.</p> <p>Students use computers to develop materials, complete assessments, or engage in simulations. Work can be individual, in pairs, or in small groups.</p> <p>Students utilize computers independently to accomplish tasks appropriate to the use of the computer as a tool. Computers become seamlessly integrated tools in the middle school classroom, mimicking their place in the adult work environment.</p> <p><b>Resources:</b> LCD projectors, Internet connectivity Some significant student access to computers required. Permanently placed PCs in middle school classroom are desirable.</p>

## Technology Content Standards Grade 8

**Introduce:** Direct Instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 1: Students will demonstrate awareness, knowledge and appropriate usage of computer hardware components.</b>	
<b>Mouse Skills:</b>	
Mouse Skills: Point and Click/Double Click	Independent User
Mouse Skills: Point and Select from Menu	Independent User
Mouse Skills: Point, Click, and Drag	Independent User
Mouse Skills: Know the basic functional differences between left and right mouse buttons.	Independent User
<b>Keyboarding Skills:</b>	
Keyboarding Skills: Use Typing Tutorial Program.	Independent User
Keyboarding Skills: Proficiently type, using proper hand position, with all alphanumeric keys.	Independent User
<b>Other:</b>	
Identify and know the basic functions of computer hardware.	Independent User
Know potential hazards that could damage computer hardware.	Independent User
Learn NHA's student computer usage policies.	Independent User
Know basic facts about networked computers.	Independent User
Uses a variety of input and output devices. (Scanner, Digital Camera, etc...)	Independent User
Know the differing capacities and trade-offs for computer storage media.	Independent User

<b>Content Standard 2: Students will demonstrate awareness, knowledge and usage in file management and basic computer operation.</b>	
<b>File Management:</b>	
File Management: Save (Name, Choose a location)	Independent User
File Management: Retrieve saved documents	Independent User
File Management Distinguish between Save and Save As	Independent User
File Management. Create back-up of documents.	Independent User
<b>Computer Operation Skills:</b>	
Computer Operation Skills: Know how to start a computer software program	Independent User
Computer Operation Skills: Cut, Copy, Paste	Independent User
Computer Operation Skills: Manipulate Windows (Task Bar, Close Button, Minimize Button, Maximize Button, Restore Window Button)	Independent User
Computer Operation Skills: Trouble-shoots simple problems.	Independent User

**Introduce:** Direct Instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 3: Students will demonstrate awareness, knowledge, and usage of a word processor, spreadsheet, and database.</b>	
<b>Word Processing:</b>	
Word Processing: Know how to start a new Word Processing document.	Independent User
Word Processing: Change the font and size of text.	Independent User
Word Processing: Align text with alignment buttons.	Independent User
Word Processing: Highlight text with the mouse.	Independent User
Word Processing: Change the format of text with bold, italics and underline.	Independent User
Word Processing: Know how to print independantly.	Independent User
Word Processing: Use the cut and paste commands.	Independent User
Word Processing: Use the menu bar functions.	Independent User
Word Processing: Insert Clip Art	Independent User
Word Processing: Use Spell Check	Independent User
Word Processing: Learn Keyboard short-cuts (Ctrl-V = Paste, etc...)	Independent User
Word Processing: Learn to use headers and footers.	Independent User
<b>Spreadsheet:</b>	
Spreadsheet: Use the mouse to select a cell.	Independent User
Spreadsheet: Enter data into a cell.	Independent User
Spreadsheet: Learn spreadsheet terms.	Independent User
Spreadsheet: Know how to start a new Spreadsheet document.	Independent User
Spreadsheet: Learn to graph or chart.	Independent User
Spreadsheet: Learn to add/subtract cell information.	Independent User
Spreadsheet: Create formula functions.	Develop

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

<b>Database:</b>	
Database: Know how to start a new Database document.	Independent User
Database: Know database terms.	Independent User
Database: Know how to create fields and enter information into records.	Independent User
Database: Learn to sort the database based on one field.	Independent User
Database: Perform a search based on one or more fields.	Independent User
<b>Other:</b>	
Know basic distinctions among computer software programs, such as word processors, special purpose programs, and games.	Independent User
Start using multiple applications to complete one document or project. (eg. Insert a spreadsheet into a word processing document)	Independent User
Know how formats differ among software applications and hardware platforms.	Independent User

**Content Standard 4: Students will demonstrate knowledge of creating and using graphics, desktop publishing, and creating presentations.**

<b>Graphics:</b>	
Know how to use basic painting and drawing tools.	Independent User
Able to put shapes together to create a picture.	Independent User
Know how to use advanced painting and drawing tools.	Independent User
Know how to select specific areas of a painting or drawing.	Independent User
Know how to use cut, copy, and paste with selected shapes.	Independent User
Know the differences between several graphic formats.	Independent User

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independant User: Apply the technology objective without direction.**

<b>Desktop Publishing/Presentations:</b>	
Know how to insert clip art.	Independant User
Learn how to select and use a template.	Independant User
Know how to Zoom in and out.	Independant User
Learn how to create a basic presentation.	Independant User
Use special hardware devices for input within a document (scanner, digital camera).	Independant User
Learn how to format a Presentation.	Independant User
Complete a content area project.	Independant User
Complete and present a content area project presentation using Microsoft Powerpoint.	Independant User
Use multimedia within a document/presentation. (video, animation, sound, etc...)	Independant User

<b>Content Standard 5: Students will demonstrate awareness, knowledge and useage of the World Wide Web and research tools that leverage technology.</b>	
Know how to search for information within a reference-based software program.	Independant User
Learn Internet etiquette; do's and don't's	Independant User
Know basic internet terms.	Independant User
Manually entering an Internet Web address (URL).	Independant User
Learn how to search and use keywords within a search engine.	Independant User
Learn Internet Explorer button functions (back, forward, stop, etc..).	Independant User
Learn to access, send and reply with e-mail.	Independant User
Learn how to download graphics.	Independant User
Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems.	Independant User

**Introduce: Direct Instruction of the technology objectives.**

**Develop: Apply the technology objective with direction.**

**Independent User: Apply the technology objective without direction.**

<b>Content Standard 6: Students will demonstrate an understanding of the relationships among science, technology, society, and the individual.</b>	
Know ways that technology is used at home and school.	Independent User
Know that new tools and ways of doing things affect all aspects of life, and may have positive or negative effects on other people.	Independent User
Understand that when an individual creates something on a computer, the created work is that person's property, and only that person has the right to change it.	Independent User
Know that technologies often have costs as well as benefits and can have an enormous effect on people and other living things.	Independent User
Know that new inventions often lead to other new inventions and ways of doing things.	Independent User
Know areas in which technology has improved human lives.	Independent User
Understand the concept of software piracy.	Independent User
Know ways in which technology has influenced the course of history.	Independent User
Know that science cannot answer all questions and technology cannot solve all human problems nor meet all human needs.	Develop
Know examples of copyright violations and computer fraud and possible penalties.	Develop
Know that technology and science are reciprocal. They both are the driving force behind each other.	Introduce
Know ways in which technology and society influence one another.	Introduce

<b>Content Standard 7: Students will demonstrate an understanding of how technology can be used as a tool for problem solving and decision making.</b>	
Know that objects occur in nature; but people can also design and make objects.	Independent User
Know that tools can be used to observe, measure, make things, and do things better and/or more easily.	Independent User
Know that people are always inventing new ways to solve problems and get work done.	Independent User
Identify a simple problem that can be solved using technology.	Independent User
Know constraints that must be considered when designing a solution to a problem.	Independent User
Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems.	Independent User
Know that people have invented and used tools throughout history to solve problems and improve ways of doing things.	Independent User
Identify appropriate problems for technological design.	Develop
Design a solution or product, taking into account needs and constraints.	Develop
Implement a proposed design.	Develop

**Scope and Sequence of Content Standards Grades 3-8**

**Introduce:** Direct instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 1: Students will demonstrate awareness, knowledge and appropriate useage of computer hardware components.</b>						
	3	4	5	6	7	8
<b>Mouse Skills:</b>						
Mouse Skills: Point and Click/Double Click	I	D	IU	IU	IU	IU
Mouse Skills: Point and Select from Menu	I	D	IU	IU	IU	IU
Mouse Skills: Point, Click, and Drag	I	D	IU	IU	IU	IU
Mouse Skills: Know the basic functional differences between left and right mouse buttons.			I	D	IU	IU
<b>Keyboarding Skills:</b>						
Keyboarding Skills: Use Typing Tutorial Program.		I	D	IU	IU	IU
Keyboarding Skills: Proficiently type, using proper hand position, with all alphanumeric keys.		I	D	IU	IU	IU
<b>Other:</b>						
Identify and know the basic functions of computer hardware.	I	D	IU	IU	IU	IU
Know potential hazards that could damage computer hardware.	I	D	IU	IU	IU	IU
Learn NHA's student computer usage policies	I	D	IU	IU	IU	IU
Know basic facts about networked computers.			I	D	IU	IU
Uses a variety of input and output devices (Scanner, Digital Camera, etc. )			I	D	IU	IU
Know the differing capacities and trade-offs for computer storage media.				I	D	IU

<b>Content Standard 2: Students will demonstrate awareness, knowledge and usage in file management and basic computer operation.</b>						
	3	4	5	6	7	8
<b>File Management:</b>						
File Management Save (Name, Choose a location)	I	D	IU	IU	IU	IU
File Management Retneve saved documents	I	D	IU	IU	IU	IU
File Management Distinguish between Save and Save As		I	D	IU	IU	IU
File Management Create back-up of documents			I	D	IU	IU
<b>Computer Operation Skills:</b>						
Computer Operation Skills Know how to start a computer software program	I	D	IU	IU	IU	IU
Computer Operation Skills Cut Copy Paste		I	D	IU	IU	IU
Computer Operation Skills Manipulate Windows (Task Bar, Close Button, Minimize Button, Maximize Button, Restore Window Button)		I	D	IU	IU	IU
Computer Operation Skills Trouble-shoots simple problems				I	D	IU

**Introduce:** Direct Instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

**Content Standard 3: Students will demonstrate awareness, knowledge, and usage of a word processor, spreadsheet, and database.**

	3	4	5	6	7	8
<b>Word Processing:</b>						
Word Processing: Know how to start a new Word Processing document.	I	D	IU	IU	IU	IU
Word Processing: Change the font and size of text.	I	D	IU	IU	IU	IU
Word Processing: Align text with alignment buttons.	I	D	IU	IU	IU	IU
Word Processing: Highlight text with the mouse.	I	D	IU	IU	IU	IU
Word Processing: Change the format of text with bold, italics and underline.	I	D	IU	IU	IU	IU
Word Processing: Know how to print independently.	I	D	IU	IU	IU	IU
Word Processing: Use the cut and paste commands.		I	D	IU	IU	IU
Word Processing: Use the menu bar functions.		I	D	IU	IU	IU
Word Processing: Insert Clip Art		I	D	IU	IU	IU
Word Processing: Use Spell Check			I	D	IU	IU
Word Processing: Learn Keyboard short-cuts (Ctrl-V = Paste, etc...)				I	D	IU
Word Processing: Learn to use headers and footers.				I	D	IU
<b>Spreadsheet:</b>						
Spreadsheet: Use the mouse to select a cell	I	D	IU	IU	IU	IU
Spreadsheet: Enter data into a cell	I	D	IU	IU	IU	IU
Spreadsheet: Learn spreadsheet terms		I	D	IU	IU	IU
Spreadsheet: Know how to start a new Spreadsheet document.		I	D	IU	IU	IU
Spreadsheet: Learn to graph or chart			I	D	IU	IU
Spreadsheet: Learn to add/subtract cell information			I	D	IU	IU
Spreadsheet: Create formula functions					I	D
<b>Database</b>						
Database: Know how to start a new Database document				I	D	IU
Database: Know database terms				I	D	IU
Database: Know how to create fields and enter information into records				I	D	IU
Database: Learn to sort the database based on one field				I	D	IU
Database: Perform a search based on one or more fields				I	D	IU
<b>Other</b>						
Know basic distinctions among computer software programs, such as word processors, special purpose programs, and games		I	D	IU	IU	IU
Start using multiple applications to complete one document or project (eg. Insert a spreadsheet into a word processing document)				I	D	IU
Know how formats differ among software applications and hardware platforms				I	D	IU

**Introduce:** Direct instruction of the technology objectives.

**Develop:** Apply the technology objective with direction.

**Independent User:** Apply the technology objective without direction.

<b>Content Standard 4: Students will demonstrate knowledge of creating and using graphics, desktop publishing, and creating presentations.</b>						
	3	4	5	6	7	8
<b>Graphics:</b>						
Know how to use basic painting and drawing tools.	I	D	IU	IU	IU	IU
Able to put shapes together to create a picture.	I	D	IU	IU	IU	IU
Know how to use advanced painting and drawing tools			I	D	IU	IU
Know how to select specific areas of a painting or drawing.			I	D	IU	IU
Know how to use cut, copy, and paste with selected shapes.			I	D	IU	IU
Know the differences between several graphic formats.				I	D	IU
<b>Desktop Publishing/Presentations:</b>						
Know how to insert clip art		I	D	D	IU	IU
Learn how to select and use a template			I	D	IU	IU
Know how to Zoom in and out			I	D	IU	IU
Learn how to create a basic presentation			I	D	IU	IU
Use special hardware devices for input within a document (scanner, digital camera)			I	D	IU	IU
Learn how to format a Presentation				I	D	IU
Complete a content area project				I	D	IU
Complete and present a content area project presentation using Microsoft Powerpoint				I	D	IU
Use multimedia within a document/presentation (video, animation, sound, etc ...)				I	D	IU

<b>Content Standard 5: Students will demonstrate awareness, knowledge and usage of the World Wide Web and research tools that leverage technology</b>						
	3	4	5	6	7	8
Know how to search for information within a reference-based software program	I	D	IU	IU	IU	IU
Learn internet etiquette: do's and don't's	I	D	IU	IU	IU	IU
Know basic internet terms	I	D	IU	IU	IU	IU
Manually entering an internet web address (URL)			I	D	IU	IU
Learn how to search and use keywords within a search engine			I	D	IU	IU
Learn internet Explorer button functions (back, forward, stop, etc.)			I	D	IU	IU
Learn to access, send and reply with e-mail			I	D	IU	IU
Learn how to download graphics			I	D	IU	IU
Research and evaluate the accuracy, relevance, appropriateness, comprehensiveness, and bias of electronic information sources concerning real-world problems				I	D	IU

- Introduce: Direct Instruction of the technology objectives.
- Develop: Apply the technology objective with direction.
- Independent User: Apply the technology objective without direction.

Content Standard 6: Students will demonstrate an understanding of the relationships among science, technology, society, and the individual.						
	3	4	5	6	7	8
Know ways that technology is used at home and school.			I	D	IU	IU
Know that new tools and ways of doing things affect all aspects of life, and may have positive or negative effects on other people.			I	D	IU	IU
Understand that when an individual creates something on a computer, the created work is that person's property, and only that person has the right to change it.			I	D	IU	IU
Know that technologies often have costs as well as benefits and can have an enormous effect on people and other living things.			I	D	IU	IU
Know that new inventions often lead to other new inventions and ways of doing things.			I	D	IU	IU
Know areas in which technology has improved human lives.			I	D	IU	IU
Understand the concept of software piracy.			I	D	IU	IU
Know ways in which technology has influenced the course of history.				I	D	IU
Know that science cannot answer all questions and technology cannot solve all human problems nor meet all human needs.					I	D
Know examples of copyright violations and computer fraud and possible penalties					I	D
Know that technology and science are reciprocal. They both are the driving force behind each other						I
Know ways in which technology and society influence one another.						I

Content Standard 7: Students will demonstrate an understanding of how technology can be used as a tool for problem solving and decision making.						
	3	4	5	6	7	8
Know that objects occur in nature, but people can also design and make objects	I	D	IU	IU	IU	IU
Know that tools can be used to observe, measure, make things, and do things better and/or more easily	I	D	IU	IU	IU	IU
Know that people are always inventing new ways to solve problems and get work done	I	D	IU	IU	IU	IU
Identify a simple problem that can be solved using technology.			I	D	IU	IU
Know constraints that must be considered when designing a solution to a problem			I	D	IU	IU
Select and use appropriate tools and technology resources to accomplish a variety of tasks and solve problems			I	D	IU	IU
Know that people have invented and used tools throughout history to solve problems and improve ways of doing things			I	D	IU	IU
Identify appropriate problems for technological design					I	D
Design a solution or product taking into account needs and constraints					I	D
Implement a proposed design					I	D

# **VISUAL ARTS EIGHTH GRADE**

**Mission Statement  
NHA Visual Arts Education  
Grade Level Content Standards  
and Objectives**

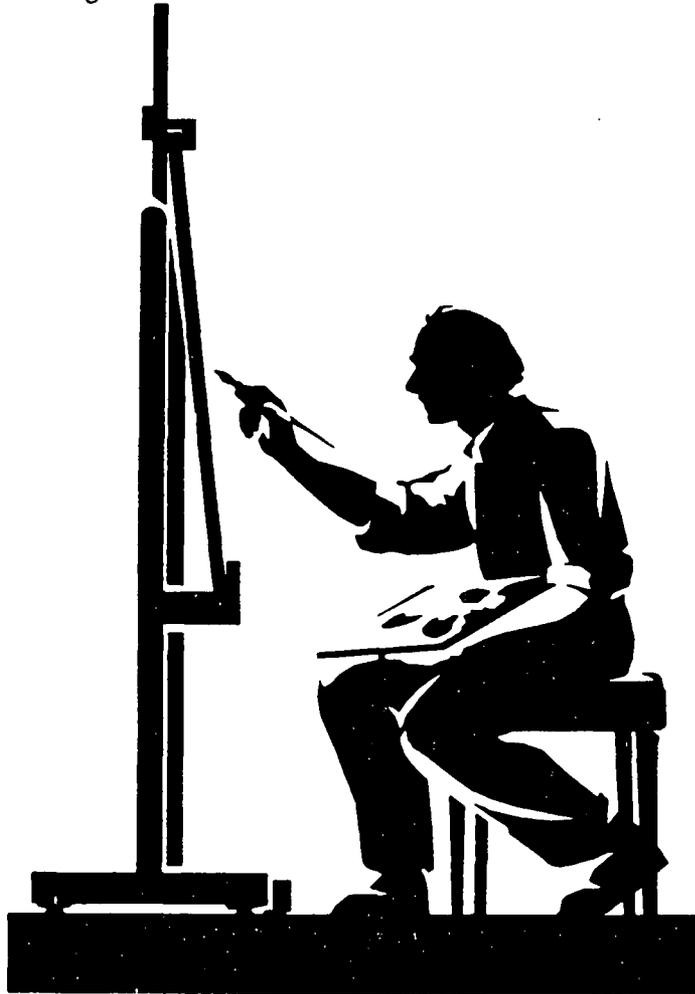


## Visual Arts Mission Statement National Heritage Academies

In teaching the visual arts, we seek to provide the student with the tools to understand the significant role the visual arts play in our lives with their power to express ideas throughout history. The visual arts are an essential means of communication in our society and we seek to enable the child to use the visual arts to express his or her own unique ideas.

The visual arts curriculum will equip the learner with a philosophical, intellectual, physical, emotional, and moral foundation in the visual arts. From this foundation, we seek to enhance the critical thinking and problem-solving skills of the student through creativity and self-expression.

We believe the visual arts are essential to a child's education and provide an opportunity for each child to become a valuable and contributing member of our society, ultimately leading to a higher sense of their own self-worth.



<p style="text-align: center;"><b>NATIONAL HERITAGE ACADEMIES</b> <b>ART EDUCATION CONTENT STANDARDS</b></p>
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**Art History**

The study of art history will enable students to appreciate and understand artworks and artists from various cultures past and present.

**Aesthetics**

Aesthetics in art education helps form the foundation of a student's understanding of the arts as a unique and important human experience. The study of aesthetics will enable the student to view, appreciate, interpret and evaluate works of art.

**Art Production**

Students will use various mediums and techniques to produce works of art that express personal thoughts, feelings, and perceptions.

**Art Criticism**

Arts criticism is an effort to fully understand works of art by precisely describing them, analyzing their components, interpreting them and making judgments about the content or form according to established standards.

**Integration**

Integrating art into the classroom curriculum helps the student understand the correlation between the two areas of study.

## Visual Arts: Grade 8

<b>Content Standards</b>
<b>Eighth Grade students will:</b>
1. Formulate a position regarding meaning in works of art
2. Compare formal qualities in works of art
3. Understand the role of historical/cultural context for works of art
4. Create expressive artwork in varied media, independently, and in collaborative groups
5. Judge own artwork using methods and vocabulary of aesthetics and art criticism

### I. Art History: Periods and Schools

#### A. PAINTING SINCE WORLD WAR II

- Examine representative artists and works, including
  - Jackson Pollock and Abstract Expressionism: *Painting, 1948*
  - Willen de Kooning, *Woman and Bicycle*
  - Mark Rothko, *Orange and Yellow*
  - Helen Frankenthaler, *Waves*
  - Andy Warhol and Pop Art: *Campbell's Soup Can, Marilyn*
  - Roy Lichtenstein, *Whaam*
  - Romare Bearden, *She-Ba*
  - Jacob Lawrence, a work from his *Builder* series or *Migration of Negroes* series

**B. PHOTOGRAPHY**

- Examine representative artists and works including:  
Edward Steichen, *Rodin with His Sculptures "Victor Hugo" and "The Thinker"*  
Alfred Steiglitz, *The Steerage*  
Dorothea Lange, *Migrant Mother, California*  
Margaret Bourke-White, *Fort Peck Dam*  
Ansel Adams, *Moonrise, Hernandez, New Mexico*  
Henri Cartier-Bresson, *The Berlin Wall*

**C. 20th CENTURY SCULPTURE**

- Examine representative artists and works, including  
Auguste Rodin, *The Thinker, Monument to Balzac*  
Constantin Brancusi, *Bird in Space*  
Pablo Picasso, *Bull's Head*  
Henry Moore, *Two Forms*  
Alexander Calder, *Lobster Trap and Fish Tail*  
Louise Nevelson, *Black Wall*  
Claes Oldenburg, *Clothspin*  
Maya Lin, *Vietnam Veterans Memorial*

**II. Architecture Since the Industrial Revolution**

- Demonstrations of metal structure: Crystal Palace, Eiffel Tower
- First skyscrapers: "Form follows function"  
Louis Sullivan: Wainwright Building  
Famous skyscrapers: Chrysler Building, Empire State Building
- Frank Lloyd Wright: Fallingwater, Guggenheim Museum
- The International Style  
Walter Gropius, Bauhaus Shop Block  
Le Corbusier: Villa Savoye, Unite d'Habitation, Notre Dame du Haut  
Ludwig Mies van der Rohe and Philip Johnson: Seagram Building

**MUSIC  
EIGHTH GRADE**

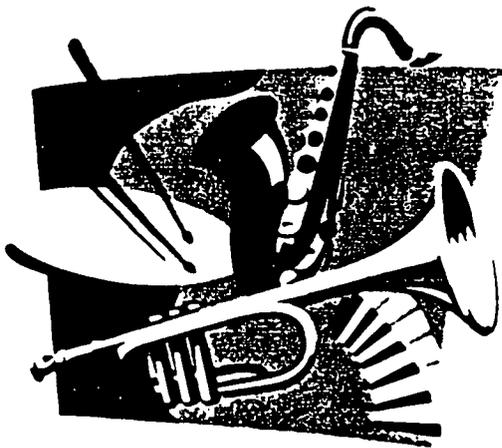
**NHA Music Philosophy  
Grade Level Content Standards  
Supplies and Curriculum  
Component Chart Grade 8-2000**



## NHA MUSIC PHILOSOPHY

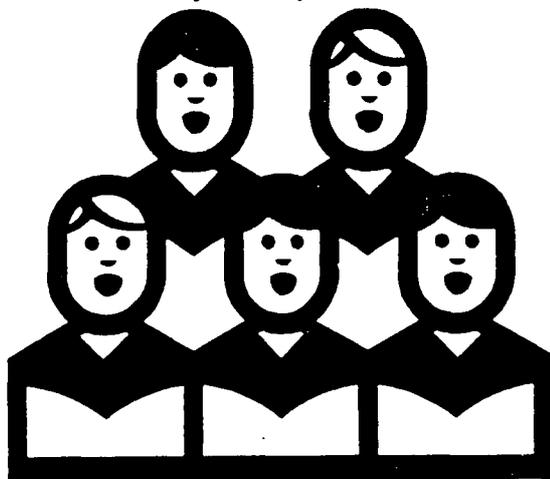
Music is an integral part of life in our cultures, communications, and creativity and expressive abilities. An innate part of our natural being, our musical intelligence needs to be developed and enhanced through formal music education to complete a balanced education for our charter school students.

Music education is especially beneficial for students with lower verbal abilities and has been shown to increase verbal SAT scores by as much as 34-38 points. Music students have been proven to be ahead of other students in writing, communication and analytical skills, and have outperformed non-music students on achievement tests in reading and math. The study of music enhances self-discipline, self-confidence, team skills, and self-motivation.



**MIDDLE SCHOOL MUSIC**  
**GRADES 6, 7, and 8**

**Grade 6 - Music Required - Choices.**  
**Choir, Band, or Orchestra**



**Grade 7 - Music Required - Choices**  
**Choir, Band, or Orchestra**



**Grade 8 - Music Elective (Optional) - Choir, Band, Orchestra**



## Supplies and Curriculum for Start-up Charter Schools

### **Essential Items: All to be ordered by school principal and music teacher**

#### **Music Room:**

60' X 30' soundproofed room for any school expected to house K-8 music program with storage cupboards for equipment, supplies, stereo, and instruments

Large industrial basin sink with running water

4' X 8' white board

Standard teacher's desk, 2 drawer file, 4 drawer file (for music storage)

30 stackable chairs, 25 music stands (13 stands for elementary program start-up)

#### **Keyboard and Stereo:**

Clavinova Keyboard (approx. \$3,000 1998 prices)

C.D./Cassette player with split trax capabilities

#### **Curriculum:**

Core Knowledge materials and NHA content standards

K-6 teacher's edition, C.D.'s, and 24 student books of "Share the Music" curriculum

#### **Rhythm Instruments for Elementary Program:**

(current contact: John Gillette@Marshall Music Company Grand Rapids office, will give 40-50% school discount) **Ordered in School Speciality Starting Kit for new schools**

24 rhythm sticks

2 pair maracas

3 triangles (small, medium, and large with strikers)

2 tambourines

2 sets wood blocks

2 pair claves

1 guiro

2 pair sand blocks

2 hand drums (one each, large and small)

1 small set of cymbals

1 set bongos

1 set of handle bells

4 sets wrists bells

1 each of alto xylophone and glockenspiel

**Recorders:**

(Recorders are part of the 4th grade curriculum standards)

25 alto recorders

13 "Hal Leonard" recorder books

**Bowmar Orchestral Library:**

(Music listening and appreciation are required as content standards and this set of C.D.'s would fulfill these requirements)

Series 1, 2, & 3 West Music Supply Company page # 89  
CDBM5111; CDBM5112, CDBM5113

**Games:**

Instrument Bingo - page 14, Music in Motion Catalogue # 6107 \$29.95

**Meet the Instruments Posters:**

25, full-color 14" X 22" posters - page 22 Music in Motion Catalogue 35904,  
\$77.00

## McGraw Hill Companies Component Chart - Grade 8 - 2000

The items listed below are suggestions. To place an order: 1-800-442-9685, The McGraw Hill Companies, 220 East Daniieldale Road, Desoto, Texas 75115, [www.mhschool.com](http://www.mhschool.com)

**\* Music Teachers are able to place orders with other vendors due to availability**

0-02-295374-4	Pupil Edition	48.00	_____	_____
0-02-295394-9	Teacher's Edition (with Piano Accompaniment)	141.00	_____	_____
0-02-295383-3	Teacher's Edition	84.00	_____	_____
0-02-295421-X	Teacher's Resource Package	96.00	_____	_____
0-02-295430-9	Teacher's Resource Masters	17.25	_____	_____
0-02-295443-0	Compact Discs	507.00	_____	_____

### VIDEOTAPE

0-02-295485-6	Sounds of Percussion Videotape, Gr. 4-8	36.99	_____	_____
0-02-295486-4	Blending Musical Styles Videotape, Gr. 4-8	36.99	_____	_____
0-02-295487-2	Making a Music Video Videotape, Gr. 4-8	36.99	_____	_____
0-02-295488-0	The Mariachi Tradition Videotape, Gr. 1-8	38.49	_____	_____
0-02-295492-9	Introduction to the Computer in Music Videotape Gr. 3-8	38.49	_____	_____
0-02-295493-7	Composing Made Easy Videotape, Gr. 5-8	36.99	_____	_____

### TECHNOLOGY

#### MUSIC WITH MIDI

0-02-295232-2	Standard Package	88.08	_____	_____
0-02-295238-1	Site License Package	333.00	_____	_____
0-02-295299-3	District License Package	828.00	_____	_____

#### GUITAR 101: THE FENDER METHOD CD-ROM

0-02-295532-1	Guitar 101: The Fender Method CD-ROM (win)	29.99	_____	_____
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#### G-VOX GUITAR CD-ROM

0-02-295533-X	G-VOX Guitar CD-ROM (win)	99.00	_____	_____
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### TECHNOLOGY COMPONENTS (GR. K-8)

#### VIDEOTAPE PACKAGES

0-02-295479-1	Signing Videotape for Primary Grades, Gr. K-2	36.99	_____	_____
0-02-295480-5	Signing Videotape for Intermediate Grades, Gr. 3-6	36.99	_____	_____
0-02-295481-3	Instrument Sounds Videotape, Gr. K-3	36.99	_____	_____
0-02-295482-1	Music and Movement Videotape, Gr. K-3	36.99	_____	_____
0-02-295483-X	Musical Expression Videotape, Gr. 3-6	36.99	_____	_____
0-02-295484-8	Creating Musical Moods Videotape, Gr. 3-6	36.99	_____	_____
0-02-295485-6	Sounds of Percussion Videotape, Gr. 4-8	36.99	_____	_____
0-02-295486-4	Blending Musical Styles Videotape, Gr. 4-8	36.99	_____	_____
0-02-295487-2	Making a Music Video Videotape, Gr. 1-8	36.99	_____	_____
0-02-295488-0	The Mariachi Tradition Videotape, Gr. 3-8	38.49	_____	_____

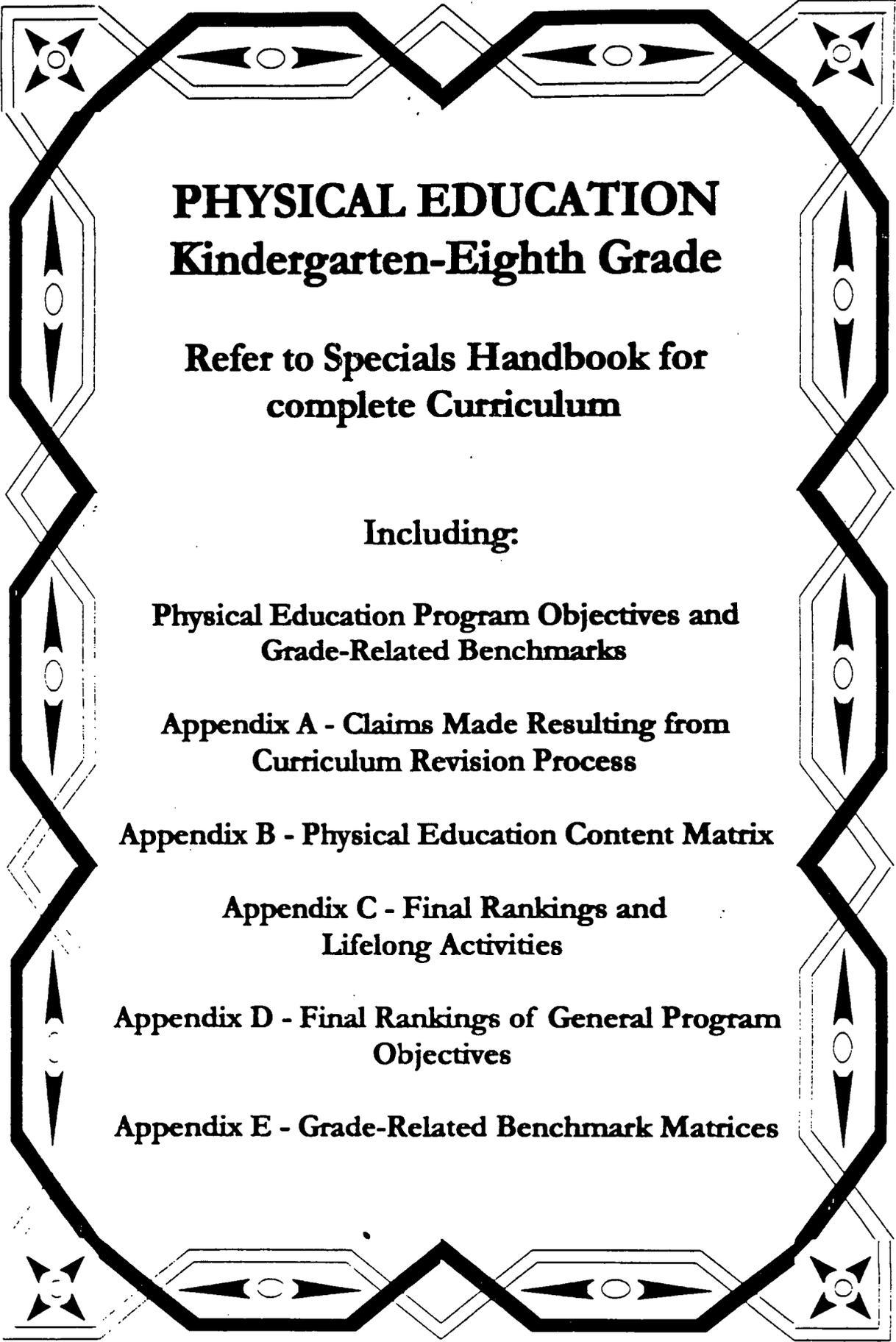
0-02-295492-9	Introduction to the Computer in Music Videotape, Gr. 3-8	36.72	_____	_____
0-02-295493-7	Composing Made Easy Videotape, Gr. 5-8	36.99	_____	_____

**MUSIC TIME**

0-02-295243-8	Music Time (Mac)	79.95	_____	_____
0-02-295245-4	Music Time (Win)	79.95	_____	_____
0-02-295244-6	Music Time Lab Pack (Mac) (5 packages)	241.50	_____	_____
0-02-295246-2	Music Time Lab Pack (Win) (5 packages)	241.50	_____	_____

**MUSIC ACE AND MUSIC ACE 2**

0-02-295318-3	Music Ace CD-ROM (Hybrid Mac/Win)	79.95	_____	_____
0-02-295333-7	Music Ace 2 CD-ROM (Hybrid Mac/Win)	79.95	_____	_____
0-02-295248-9	Music Ace Lab Pack (Mac) (5 packages)	167.97	_____	_____
0-02-295249-7	Music Ace Lab Pack (Mac) (10 Packages)	293.97	_____	_____
0-02-295319-1	Music Ace CD-ROM (Hybrid Mac/Win) 5-Computer Site License	159.96	_____	_____
0-02-295320-5	Music Ace CD-ROM (Hybrid Mac/Win) 10-Computer Site License	279.96	_____	_____
0-02-295334-5	Music Ace 2 CD-ROM (Hybrid Mac/Win) 5-Computer Site License	159.96	_____	_____
0-02-295335-3	Music Ace 2 CD-ROM (Hybrid Mac/Win) 10-Computer Site License	279.96	_____	_____



# **PHYSICAL EDUCATION Kindergarten-Eighth Grade**

**Refer to Specials Handbook for  
complete Curriculum**

**Including:**

**Physical Education Program Objectives and  
Grade-Related Benchmarks**

**Appendix A - Claims Made Resulting from  
Curriculum Revision Process**

**Appendix B - Physical Education Content Matrix**

**Appendix C - Final Rankings and  
Lifelong Activities**

**Appendix D - Final Rankings of General Program  
Objectives**

**Appendix E - Grade-Related Benchmark Matrices**