

GRADE FIVE CURRICULUM GUIDELINE

To Parents/Guardian:

This guideline contains a brief description of each of the subjects your child will study in Fifth Grade. It is designed to provide you with a general overview of the content and skills which are taught as well as other pertinent information. Teaching strategies will, of course, vary according to the needs of the class. We hope that the continued use of this guideline and the meetings with your child's teachers and learning specialists will keep you informed about the goals of the Andover Public Schools and your child's learning progress.

The Elementary School Principals

English/Language Arts

Our reading program uses award winning literature as the basis for instruction in reading, writing, spelling, and grammar. Students read fiction, non-fiction, poetry, and biographies to refine decoding skills, increase fluency, and develop comprehension and vocabulary. Through class discussion, written work, and projects, students develop an appreciation and understanding of a variety of genres. Writing is an integral component of our program with students writing in all curricula areas: writing in daily journals, answering literature based questions, recording scientific data, and documenting, recording scientific data, and documenting historical information in social studies. Students learn that writing is a process as they draft, revise, rewrite, edit and publish their work. Direct instruction occurs in grammar, usage, and mechanics individually and in small and large groups. Spelling competency develops over time and is influenced by one's experience with language and direct spelling instruction. Independent reading is considered an important part of the curriculum. Students are expected to read at home and in school.

Language Strand - Students will take part in discussing questioning, listening, and presenting orally to small and large groups. Students will describe, analyze, and use vocabulary and grammar in both formal and informal English.

Reading and Literature Strand - Students will identify and make connections to basic facts and main ideas in a text. Students will identify, analyze, and apply knowledge of genre, theme, fiction, non-fiction and poetry. Students will analyze and evaluate myths, traditional narratives, classical literature, dramatic literature, dramatic readings, and performances.

Composition Strand - Students will write with a clear focus, coherent organization, sufficient detail, and for different audiences and purposes. Students will use standard English conventions in their writing, revising, and editing. Students will develop and use appropriate rhetorical, logical, and stylistic criteria for assessing final versions of their compositions or research projects before presenting them to varied audiences.

Media Strand - Students will design and create coherent media productions (podcasts, powerpoint presentations, videos, internet, etc.)

Mathematics

The goal of the *Everyday Math* program is for students to become confident problem-solvers who value and enjoy math. The philosophy of the program is to provide a rigorous and balanced curriculum that emphasizes conceptual understanding while building a mastery of basic skills. The program is a spiraling curriculum ensuring that children encounter and apply concepts over time. Therefore students will not be expected to master all of the concepts they are taught this year. The curriculum is also based on how students learn, what they are interested in, and the future for which they must be prepared. Units in the program include the following content strands: Number Sense and Operations; Patterns, Relations, and Algebra; Geometry; Measurement; and Data Analysis, Statistics, and Probability.

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In Number Sense and Operations. Fifth Graders will be computing with multi-digit numbers, estimate in order to verify results of computations with larger numbers, and use concrete objects to model operations with fractions, mixed numbers, percents and decimals. By the end of fifth grade, students choose operations (addition, subtraction, multiplication, division) appropriately, estimate to solve problems mentally, and compute with whole numbers.

In Patterns, Relations, and Algebra, Fifth Graders should understand how patterns, relations, and functions are interrelated and be able to represent and analyze mathematical situations and structures using algebraic symbols. Through numerous explorations, students deepen their understanding of patterns. It is important that the concept of a variable is developed for them through practical situations, for example, as they engage in such basic activities as listing the cost of one pencil at 50¢, two pencils at ?, three pencils at ? , . . . n pencils at ?. Investigating patterns helps students understand the concept of constant growth as they analyze sequences like 1, 3, 5, 7, These students should contrast this type of change with other relationships as evidenced in sequences such as 1, 2, 4, 8, . . . ; 1, 3, 6, 10, 15, . . . (the sum of the first n positive integers); and 1, 1/10, 1/100, 1/1000,

In Geometry, students identify the components, attributes, and properties of different shapes, including sides, corners or vertices, edges, interiors, and exteriors. Students will be given strategies to identify and categorize shapes by referring to their components, attributes, and properties. They will investigate these features dynamically by using mirrors, paper folding, hand drawing, and computer drawing. Still operating on concrete objects, students will develop the idea of transformations by recognizing changes effected by slides, flips, and turns, not only on individual objects but also on combinations of objects, and perform investigations of simple transformations that lead to the concept of congruence.

In Measurement students apply the concepts of perimeter and area to solve problems involving triangles and rectangles. Students will identify, measure, describe, classify, and draw various angles, and learn to find the volume and surface areas of rectangular prisms.

In Data Analysis, Statistics, and Probability - students will find the median, mean, mode, maximum, minimum, and range for a given number set. They will construct and interpret line plots, line graphs, bar graphs, and circle graphs. Students will also predict the outcomes of simple experiments.

History and Social Science

The History Alive! Program is closely aligned with the Massachusetts Frameworks. The essential question or big idea is “How did the culture and government of the United State evolve?” Students will explore such topics as how early settlements impacted American culture, how the democratic government evolved and why the republic expanded.

Science and Technology/Engineering

The Science Program provides our students with the foundation and understanding of scientific topics through the acquisition of scientific knowledge, the development of thinking skills, and the application of the scientific method. The units of study which correlate with the science frameworks in physical and earth sciences are weather and climate, energy, and machines. Additionally, Andover has partnered with the Museum of Science to offer our students “Engineering is Elementary”. Within the classroom students use software related to language arts, reading, mathematics, science, and social studies and create multi-media presentation.

Art

Students continue to keep a portfolio, reflect upon, write about, and articulate their reasons for their aesthetic decisions. They draw figures in action using detail, draw both front and side views of figures, and draw one point perspective.

Music

Students compare and analyze music through elements learned since kindergarten. They improvise melodies and harmonies on tonal and rhythm instruments. They are able to identify ternary, binary, rondo, theme, and variation patterns. They can also identify coda, interlude, dynamics, and tempo as well as meter and mode. Fifth graders have the opportunities to sing in a school-wide chorus. Band and orchestra students can continue individual or group study through the Andover After School Music Program. Students wishing to play in band or orchestra have the opportunity to play in a town-wide elementary orchestra or band.

Physical Education

Students in fifth grade participate in units to further enhance skill development and to apply concepts taught in grades K-4. Activities allow students the opportunity to practice the combination of several skills and concepts (dribbling and moving to an empty space) and then culminate with a modified game or individual performance. Areas of focus are: eye-hand and eye foot coordination, dance, gymnastics, and fitness.