MATHEMATICS (continued)

- **Measurement and Geometry**
  Students understand and compute the volumes, areas and perimeters of rectangles, circles, triangles, cones, cylinders, spheres, and cubes. Students identify, describe, and classify the properties of, and the relationships between, 2-D and 3-D geometric figures.

- **Statistics, Data Analysis, and Probability**
  Students use a variety of data to compute mean, medium, and mode. Students organize data by creating different types of graphs (i.e., circle, bar, line, and pictograph). Students use the graphs to compare and interpret data.

- **Mathematical Reasoning**
  Students make decisions about how to approach problems. They use strategies, skills, and concepts in finding solutions. They move beyond a particular problem by applying their knowledge to other mathematical problems.

HISTORY-SOCIAL SCIENCE

- **Students in grade five study the development of the nation up to 1850 with an emphasis on the people who were already here, when and from where others arrived, and why they came. Students learn about the colonial government founded on Judeo-Christian principles, the ideals of Enlightenment, and the English traditions of self-government. They recognize that ours is a nation that has a constitution that derives its power from the people, that has gone through a revolution that once sanctioned slavery, that experienced conflict over land with the original inhabitants, and that experienced westward movement that took its people across the continent. Studying the cause, course, and consequences of the early explorations through the War for Independence and western expansion is central to students' fundamental understanding of how the principles of the American republic form the basis of a pluralistic society in which individual rights are secured.**

SCIENCE

- **Physical Sciences**
  Elements and their combinations account for all the varied types of matter in the world.

- **Life Sciences**
  Plants and animals have structures for respiration, digestion, waste disposal, and transport of materials.

- **Earth Sciences**
  Water on Earth moves between the oceans and land through the processes of evaporation and condensation. Energy from the sun heats the Earth unevenly, causing air movements that result in changing weather patterns. The solar system consists of planets and other bodies that orbit the sun in predictable paths.

- **Investigation and Experimentation**
  Scientific progress is made by asking meaningful questions and conducting careful investigations. To understand this concept and to address the content of the other three strands, students should develop their own questions and perform investigations.

SUGGESTED HOME LEARNING ACTIVITIES

**ENGLISH-LANGUAGE ARTS**

1. Read a variety of materials (i.e., books, magazines, newspapers, websites).
2. Practice writing daily (i.e., letters, stories, recipes, directions, essays, reports, and journals).
3. Watch and discuss programs that are related to history and science issues. 

**MATHEMATICS**

1. Assist your child in practicing all math facts (i.e., addition, subtraction, multiplication, and division).
2. Use math skills in everyday activities (i.e., working with money and measurement in cooking, shopping, building and dining out) with your child.
3. Play games (i.e., puzzles, cards, chess, dominoes, and board games).
ESSENTIAL STANDARDS

GRADE 5
ENGLISH-LANGUAGE ARTS

- **Reading**
  Word Analysis, Fluency, and Systematic Vocabulary Development: Students read grade level text fluently. They use word origins, root words, and Greek/Latin word parts to understand meaning of complex words. They use a thesaurus to find related words. Students interpret words and know words with multiple meanings.
  Reading Comprehension: Students read and understand grade-level appropriate fiction and non-fiction books. Students explain text features: charts, maps, illustrations, and diagrams. They recognize sequential or chronological order within a text. Students draw inferences, conclusions, and generalizations about the grade-level text. Students critique informational text and recognize when the author's opinions are supported by facts.

- **Literary Response and Analysis**
  Students read and respond to important works of literature and make connections between texts. They identify and analyze the characteristics of poetry, drama, fiction, and non-fiction. They identify the problem and resolution in a story. Students analyze plot, character, and theme. They understand and respond to various authors' techniques (i.e., symbolism, patterns, metaphors, and imagery).

- **Writing**
  Writing Strategies: Students write clear, coherent, and focused essays. They create stories that establish plot, describe the setting, and give an ending. They write informational essays that establish a topic, give details, and offer a conclusion. They use a thesaurus to find new word choices. Students also proofread and revise their work.
  Writing Applications: Students write stories, responses to stories, and informational reports. Students also write persuasive letters or essays, which state a clear opinion supported by evidence. Essays should be at least 500-700 words.
  Written Language Conventions: Students use correct language conventions in grade-level writing. Students use appropriate sentence structure, grammar, punctuation, capitalization, and spelling.

- **Listening and Speaking**
  Students deliver focused and well-organized presentations that communicate ideas clearly and relate to the background and interests of the audience. Students also respond to and evaluate a speaker's message and their presentation techniques.

MATHEMATICS

- **Number Sense**
  Students compute very large and very small numbers, positive integers, decimals, and fractions and understand the relationship between decimals, fractions, and percents. Students solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals.

- **Algebra and Functions**
  Students use letters to represent numbers in simple expressions. Students compute the values of the expression for specific values of the variable. They use graphs to solve equations and plot ordered pairs.