

## ENGLISH LANGUAGE ARTS

In sixth grade students develop their skills as critical readers, learning to analyze and interpret text through exploring elements such as point of view, characterization, plot and setting. Students also learn to identify how authors employ imagery, figurative language, rhythm and word choice to create the mood and tone of a literary selection. Students continue to use reading as a tool for acquiring new information, and reinforcing their understanding of other curricular disciplines. In written language students learn to develop multi-paragraph compositions in a variety of genres, using increasingly sophisticated vocabulary and more mature word choices.

### **In Oral Communication students will learn to:**

- Express ideas clearly
- Demonstrate correct word usage
- Use active listening skills
- Contribute to discussion topics
- Make oral presentations to a variety of audiences

### **In Reading students will be able to:**

- Use reading strategies effectively to monitor comprehension
- Use structural analysis and context clues to determine word meaning
- Understand and apply new vocabulary
- Recognize story elements: setting, characters, plot, rising action, climax, falling action, conflict, and theme.
- Identify and understand common structures of nonfiction text including; headings, titles, captions, key words, table of contents, purpose of illustrations/pictures, and paragraph organization
- Identify and understand the use of figurative language and other devices in poetry and other literature.
- Understand the structure of various myths, traditional narratives, and tales, and compare/contrast these to traditional narratives from other cultures
- Develop an understanding and knowledge of the structure of dramatic literature
- Identify the dialogue, plot, and characters of dramatic literature
- Make connections to other texts and subject areas to deepen understanding of a text
- Identify and evaluate a theme related to personal experience, lesson learned, or main idea stated/implied through literature, and provide support from the text
- Discriminate between different forms of literature (fiction, nonfiction, drama, poetry, etc.)

### **In Writing students will be able to:**

- Use sufficient details to support a topic
- Write in a variety of genres, including narrative, descriptive, informative, persuasive, and analytical
- Use correct grade level grammar and mechanics
  - Punctuation: End marks, quotation marks, apostrophes in possessives and contractions, abbreviations, colon in a list
  - Capitalization: Proper nouns, titles of books, pronoun I and its contractions, first word in a direct quotation
  - Grammar: Parts of speech, subject-verb agreement
  - Pronoun and antecedent: Direct object and indirect object, properly placed modifiers, appropriate word choice including verb tense and correct degrees of comparison for adjectives and adverbs
- Write with clarity and accuracy of information
- Provide a clear statement of topic
- Provide evidence or examples to support details
- Organize ideas into paragraph form using space and time
- Use transitional sentences in multi-paragraph compositions
- Demonstrate sentence variety: introductory, explanatory, exemplary, directives, transitional, and conclusions
- Use mature vocabulary and word choice
- Avoid overused words
- Proofread and revise written work to improve the level of detail and organization
- Use a dictionary and thesaurus to verify spelling and improve word choice
- Identify and apply criteria for determining work quality
- Write neatly and legibly
- Communicate knowledge of the content areas in writing

## SCIENCE

In sixth grade students continue to explore geographic material's properties and methods of origin. They learn to utilize more sophisticated scientific tools, including models and maps, to interpret and represent Earth's features. In addition, students hone their scientific process skills, learning how to design and conduct a controlled experiment, collect data and draw reasonable conclusions. Sixth grade students also learn to recognize and evaluate the interaction between the earth's major systems including the biosphere, hydrosphere, atmosphere and geo-sphere. Students begin to develop an understanding of how the earth's movement impacts living and non-living things.

### **While studying the content below, students' use of the scientific method becomes more demanding.**

#### **Students learn to:**

- Formulate a testable hypothesis
- Design and conduct an experiment specifying variables to be changed, controlled, and measured
- Select appropriate tools and technology (e.g., calculators, computers, thermometers, meter sticks, balances, graduated cylinders, and microscopes), and make quantitative observations
- Present and explain data and findings using multiple representations including tables, graphs, mathematical and physical models, and demonstrations
- Draw conclusions based on data or evidence presented in tables or graphs, and make inferences based on patterns or trends in the data
- Communicate procedures and results using appropriate science and technology terminology
- Offer explanations of procedures, and critique and revise them

#### **Earth and Space Science**

- Show how earth's common physical features can be represented with models and maps including contour maps
- Identify that the layers of the earth include the lithosphere, mantle, and core
- Explain how radiation, conduction, and convection transfer heat through the earth's system
- Describe how movement of the earth's crustal plates causes both slow and rapid changes in the earth's surface
- Tell how the earth's surface is built up and torn down by natural processes
- Explain how physical evidence supports theories that the earth has evolved over geologic time
- Identify that gravity is a force that pulls all things toward the center of the earth. Explain how gravity influences the formation and movement of the planets, stars, and solar system
- Tell how lunar and solar eclipses, moon phases, and tides are related to relative positions of the earth, moon, and sun
- Compare and contrast properties and conditions of objects in the solar system and those on Earth
- Describe how the earth's tilt and its revolution around the sun result in uneven heating, causing the seasons

#### **Life Science**

- Describe how the extinction of species is related to a mismatch of adaptation and environment
- Tell how organisms interact and have different functions within an ecosystem that enable the ecosystem to survive
- Describe the roles and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web
- Explain how dead plants and animals are broken down by other living organisms, which contributes to the system as a whole
- Tell how producers use energy from sunlight to make sugars through photosynthesis, which can be used immediately, stored for later use, or used by other organisms
- Give examples of how ecosystems have changed through geologic time in response to various influences

#### **Technology**

- Demonstrate the safe and proper use of tools and machines needed to construct a prototype

## MATH

Sixth grade students extend their knowledge of numbers and the number system, exploring addition and subtraction of positive and negative fractions and investigating concepts of ratio and proportion. Students also learn to use physical models to represent how a change in one variable impacts a second variable and begin to develop an understanding of slope as a constant rate of change. Students also learn how to create and use appropriate graphical representations of data and to evaluate the effectiveness of various formats. Students are expected to be able to coherently communicate their mathematical thinking both verbally and symbolically.

#### **Number and Operations**

- Work flexibly and fluently with fractions, decimals, and percents to solve problems
- Compare and order integers, fractions, mixed numbers, decimals (both positive and negative), and percents efficiently and find their approximate locations on a number line
- Understand and use ratios and proportions to represent quantitative relationships
- Understand the meaning and effects of arithmetic operations with fractions, decimals, and integers
- Demonstrate an understanding of positive integer powers
- Demonstrate an understanding of place value and expanded notation to billions and thousandths
- Use the associative and commutative properties of addition and multiplication and the distributive property of multiplication over addition to simplify computations with integers, fractions, and decimals
- Understand and use the inverse relationships of addition and subtraction, multiplication and division, and squaring and finding square roots to simplify computations and solve problems
- Select appropriate methods and tools for computing with fractions and decimals from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods
- Develop and use strategies to estimate the results of rational-number computations and judge the reasonableness of the results
- Develop, analyze, and explain methods for solving problems involving proportions, such as scaling and finding equivalent ratios

#### **Algebra**

- Represent, analyze, and generalize a variety of patterns with tables, graphs, words, and, when possible, symbolic rules
- Develop an initial conceptual understanding of different uses of variables
- Use symbolic algebra to represent situations and to solve problems, especially those that involve linear relationships
- Recognize and generate equivalent forms for simple algebraic expressions and solve linear equations
- Model and solve contextualized problems using various representations, such as graphs, tables, and equations

#### **Geometry**

- Precisely describe, classify, and understand relationships among types of two- and three-dimensional objects using their defining properties
- Recognize and apply geometric ideas and relationships in areas outside the mathematics classroom, such as art, science, and everyday life

#### **Measurement**

- Understand both metric and customary systems of measurement
- Understand relationships among units and convert from one unit to another within the same system
- Understand, select, and use units of appropriate size and type to measure angles, perimeter, area, surface area, and volume
- Solve problems involving scale factors, using ratio and proportion
- Solve simple problems involving rates and derived measurements for such attributes as velocity and density

#### **Data Analysis and Probability**

- Describe and compare data sets using median, mean, mode, maximum, and minimum range
- Construct and interpret graphs, stem and leaf plots, line plots and circle graphs
- Use tree diagrams and other models to represent and analyze outcomes of possible trials and actual results
- Predict the probability of outcomes of simple experiments and test predictions using appropriate ratios between 0 and 1
- Predict the probability/likelihood of events

## SOCIAL STUDIES

The focus of the sixth grade social studies curriculum is World Geography. Students learn about the physical and political geography of each continent, exploring the themes of location, place (physical and man-made characteristics of a location), human interaction with the environment, and the movement of people, goods and ideas. Additionally, students learn about ways of categorizing areas of the earth such as by climate or religion.

Sixth graders will study the world outside of the United States and North America. Students will learn the geography around the world by studying one continent at a time. At the completion of each unit students will have learned to:

- Use map and globe skills
- Use geographic terms correctly
- Interpret geographic information from a graph or chart and construct a graph or chart that conveys geographic information
- Explain the difference between absolute and relative locations and give ways to indicate relative locations for countries or cities across the world
- Identify how current world atlases are organized
- Identify what time zones are in each country in relation to other regions of the world
- Use the following terms correctly: ethnic group, religious group, and linguistic group
- Define what a nation is and give examples of the different ways nations are formed
- Give examples of several well known international organizations and explain their purpose and function
- Provide examples of currencies from different countries and explain why international trade requires a system for exchanging
- Give examples of products that are traded among nations and examples of difficulties faced in trade
- Define supply and demand and describe how it affects prices of specific products
- Identify the key elements of a market economy
- Describe how different economic systems try to answer the basic economic questions of what to produce, how to produce it, and for whom to produce
- Compare the standards of living in various countries today using the gross domestic product per capita as an indicator

## WORLD LANGUAGE

Sixth grade students will refine their communication skills in the Spanish language. They will continue this process through listening, speaking, reading and writing at a more challenging level. They will delve further into the knowledge and understanding of Spanish cultures. Students will continue to make connections with other disciplines and make comparisons to further develop insight into the nature of language and culture. Students will continue to participate in multilingual communities at school, at home and around the world.

### **Communication**

- Make and respond to requests
- Obtain information and knowledge
- Express opinions and ideas
- Express needs and emotions

### **Cultures**

- Identify distinctive cultural aspects of the target culture present in stories, dramas, films and photographs
- Identify distinctive contributions made by people in the target culture
- Demonstrate knowledge of the target culture's geography by naming features such as rivers, mountains, cities and climate on maps

### **Comparisons**

- Give examples of borrowed and loan words
- Describe cultural beliefs and perspectives relating to family, school, and play in both target culture and their own

### **Connections**

- Obtain information and knowledge related to other disciplines from sources in the target language such as collecting data and graphing results in the target language

### **Communities**

- Apply knowledge of the target language and culture beyond the classroom setting such as collecting labels from common household items

## **Our Philosophy**

### **Core Values (CARE):**

- Challenging and innovative educational experiences promote academic excellence by meeting the needs of students in ways that engage them in their learning.
- A safe, supportive, and collaborative environment fosters positive attitudes among students and school staff.
- Respect for the diversity and dignity of individuals and cultures enriches learning and supports the development of responsible citizenship.
- Ensuring a quality education, cultivated by ongoing communication and shared resources among parents, teachers, town organizations, and residents, is the responsibility of the entire community.

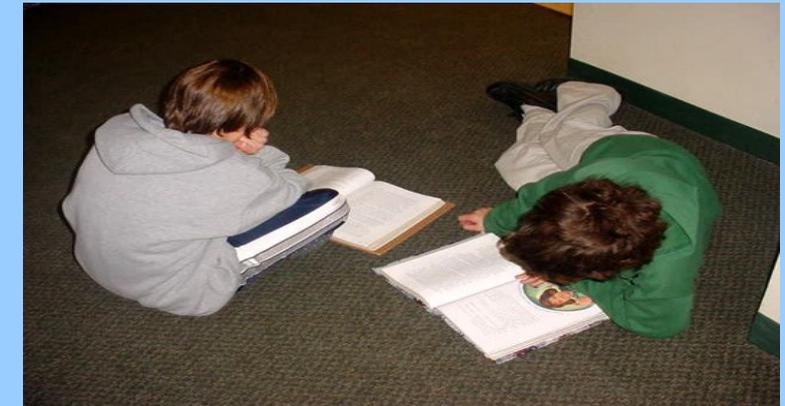
### **Mission statement:**

The mission of the Foxborough Public Schools, guided by its core values, is to engage students in a rich, diversified education, thereby empowering them to challenge themselves as they become productive, responsible citizens.



# FOXBOROUGH PUBLIC SCHOOLS

## Curriculum Benchmarks



# GRADE 6

### **Vision:**

The Foxborough Public Schools, in collaboration with the community, will provide students with intellectual, artistic, and character building educational experiences to inspire them to achieve.

**COMMITTED TO EXCELLENCE**