

ENGLISH LANGUAGE ARTS

In seventh grade students refine their skills as critical readers, learning to analyze elements of plot and characterization and determine how qualities of central characters influence plot development and the resolution of conflict in literary pieces. Students also expand their skills in reading non-fiction texts, recognize arguments for and against an issue, and learn to identify evidence in the text used to support an argument. Students apply their research skills by learning to gather and evaluate information that will be used to develop and support a thesis in a basic research paper.

In Oral Communication students will learn to:

- Express ideas clearly
- Demonstrate correct word usage
- Use active listening skills
- Contribute to discussion topics
- Understand the rules for formal and informal discussions
- Make oral presentations that demonstrate appropriate consideration of audience, purpose and the information being conveyed

In Reading students will learn to:

- Understand and acquire new vocabulary and use it correctly in reading and writing
- Use structural analysis and context clues to decode as well as determine word meaning
- Understand how our language has been developed and influenced by other languages
- Use a dictionary and thesaurus to determine pronunciation, meaning, appropriate word choice and parts of speech
- Apply reading strategies to enhance comprehension:
 - Set a purpose for reading
 - Rereading to clarify confusion
 - Make connections
 - Ask questions
 - Visualize
 - Infer
 - Determine importance in a text
 - Synthesize information for new understanding
- Locate and analyze elements of plot and characterization, recognize point of view, foreshadowing, elements of a short story, and determine the resolution of a conflict in fiction
- Identify and use the following organizational text structures to gain meaning from nonfiction or informational materials: compare/contrast, chronological or logical order, cause/effect, problem/solution, questions/answer and description
- Understand the use of figurative language, sensory imagery and literacy devices in poetry and other literature
- Identify the beliefs and values reflected in a variety of myths, traditional narratives and tales from different cultures as well as the commonality of theories explaining natural phenomena and human problems
- Identify and analyze the dialogue, stage directions, plot, and characters of dramatic literature
- Identify and evaluate a theme related to personal experience, lesson learned or main idea, state or implied, through literature, and provide support from the text
- Locate relevant information in a text
- Recall characteristics of different genres

In Writing students will learn to:

- Write for different audiences and purposes
- Write in a variety of genres; including narrative, descriptive, informative, persuasive, and analytical
- Demonstrate improvement in organization, content, paragraph development, level of detail, style, tone and word choice in compositions after revision
- Use knowledge of standard English conventions in their writing, revising, and editing
- Use rubrics to evaluate work samples
- Independently review, revise, and edit own work
- Gather information from a variety of sources, analyze and evaluate the quality of the information, and use it to answer their own questions
- Design and create age-appropriate media productions with a clear idea, adequate detail, consideration of audience, purpose, and medium
- Develop fiction writing that includes a problem and solution
- Use sentence variety; simple and complex, independent and subordinate clauses
- Use a dictionary and thesaurus to improve writing content
- Develop and support a thesis statement
- Use the components of a basic research paper, including theme, organization, the use of index cards, and footnoting
- Use technology and library resources
- Edit for punctuation, capitalization, grammar and spelling; including subject/verb agreement, proper punctuation, comma use and semicolons in sentence structure.
- Write with a clear focus and logical order of ideas and details
- Apply criteria for determining work quality
- Communicate knowledge of the content areas in writing

SCIENCE

Students in grade seven begin to develop a more comprehensive and integrated view of biological systems. Students begin their exploration at the microscopic level, learning to identify the parts and basic functions of cells. Students then progress to studying both uni-cellular and multi-cellular organisms, exploring the similarities and differences between them. In seventh grade students also pursue engineering problems and technical solutions through a study of bridges.

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

- Explain how energy provided by the sun, global patterns of atmospheric movement, and temperature differences among water, land, and atmosphere are related
- Describe how the earth’s tilt and its revolution around the sun result in uneven heating, causing the seasons

Biology

- Tell how organisms are classified into kingdoms
- Explain that organisms are composed of cells, and many organisms are single-celled, where one cell must carry out all basic functions of life
- Describe how plant and animal cells have similarities and differences in their major organelles
- Identify that the basic functions of living organisms are carried out in cells
- Tell how every organism requires a set of instructions that specifies its traits
- Identify that heredity is the passage of these instructions from one generation to another
- Explain that hereditary information is contained in genes located in the chromosomes of each cell
- Differentiate between sexual reproduction and asexual reproduction
- Identify that genetic variation and environmental factors are causes of evolution and the diversity of organisms
- Give examples of evidence drawn from multiple sources that provide the basis of the theory of evolution
- Tell that extinction of a species is related to a mismatch of adaptation and environment
- Describe how biological evolution accounts for species diversity developed over generations

Engineering/Technology

- Describe parts of a structure
- Identify three major types of bridges and their appropriate use
- Explain how the forces of tension, compression, torsion, bending, and shear affect the performance of bridges.
- Describe the effects of load and structural shape on bridges

MATH

Seventh grade students work to expand their mathematical and logical reasoning skills, while simultaneously solidifying their understanding of strategies used to approach and prepare for problem solving. They learn to formulate and answer questions through the collection, analysis and representation of data. They also explore angle relationships and three-dimensional solids. Students are expected to be able to communicate mathematical ideas coherently and to demonstrate their knowledge of different mathematical representations, particularly of proportional relationships.

Number and Operations

- Work flexibly and fluently with fractions, decimals, and percents to solve problems
- Compare and order fractions, decimals, and percents efficiently and find their approximate locations on a number line
- Develop meaning for percents greater than 100 and less than 1
- Represent numbers in scientific notation (positive powers only) and use that notation in problems
- Understand and use ratios and proportions to solve unit rate, scale and map problems
- Use factors, multiples, prime factorization, and relatively prime numbers to solve problems
- Develop meaning for integers and represent and compare quantities with them
- Understand the meaning and effects of arithmetic operations with fractions, decimals, and integers
- Use the properties of numbers 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 rational numbers from among mental computation, estimation, calculators or computers, and paper and pencil, depending on the situation, and apply the selected methods

Algebra

- Represent, model, analyze, and generalize a variety of patterns and problems with tables, graphs, words, diagrams and equations and compare the different representations
- Identify functions as linear or nonlinear and contrast their properties from tables, graphs, or equations
- Evaluate simple algebraic expressions for given variable values
- Use symbolic algebra to represent situations and to solve problems, especially those that involve linear relationships
- Compare positive rate of change to a negative rate of change
- Recognize and generate equivalent forms for simple algebraic expressions and solve linear equations, with particular attention to proportional relationships

Geometry

- Understand relationships among the angles, side lengths, perimeters, areas, and volumes of similar objects and between the number of sides and the sum of the interior angles of a polygon
- Describe sizes, positions, and orientations of shapes under informal transformations such as flips, turns, slides, and scaling
- Identify attributes of three-dimensional figures
- Graph points and identify coordinates of points in all four quadrants
- Use ruler, protractor, and compass to draw polygons and circles
- Demonstrate an understanding of the relationships of angles formed by intersecting lines

Measurement

- Understand both metric and customary systems of measurement
- Convert from one unit to another both within the same system and between systems using formulas
- Select and apply techniques, formulas, units and tools to accurately find length, area, volume, and angle measures
- Develop and use formulas to determine the circumference of circles and the area of triangles, parallelograms, trapezoids, and circles
- Find the area of more-complex shapes
- Determine the surface area and volume of selected prisms, pyramids, and cylinders
- Solve problems involving rates and scale factors

Data Analysis and Probability

- Formulate questions, design studies, and collect data about a characteristic shared by two populations or different characteristics within one population
- Use Venn diagrams, stem-and-leaf plots, tables and charts to describe and analyze data
- Use measures of central tendency (M/M/M) and spread (range) to compare data
- Use tree diagrams, tables, organized lists and area models to compute simple compound probabilities

SOCIAL STUDIES

In seventh grade, students study the early civilizations that developed in the Mediterranean area. Students explore the cultures of these early civilizations by learning about their religions, customs, philosophies, governments and arts. Students also learn about many of the powerful ideas and innovations that emerged from the ancient world and have significantly impacted the course of world history. Students learn about the evolution of important ideas such as democracy, the rule of law, scientific reasoning, and the alphabetic principle for developing systems of written communication. Students also study the origins of human beings in Africa.

Students will learn to:

- Identify and compare people of the past in terms of accomplishments and cultures with accomplishments and cultures of the present
- Compare content and purposes of different maps
- Identify reasons for learning about the ancient world
- Compare and contrast goals of classic and modern archaeology
- Explain how knowledge and decisions of the past affect our lives today and how our decisions will affect future cultures and civilizations
- Identify cultural diffusion as a result of human movement
- List developments in human culture and the form of belief system from Neanderthals to Cro-Magnon
- Describe environmental conditions that prompted early humans to settle in communities that resulted in the domestication of plants and animals
- Explain factors that led to the development of cities and civilizations in the Mesopotamia region
- Describe the development of religion in Mesopotamia before the rise of Egypt
- Explain how policies helped bring about the fall of the Assyrian and Babylonian empires
- Explain how technology helped give rise to the Sumerian civilization and early government systems
- Describe the development of religion in Egypt
- Compare and contrast Upper and Lower Egypt, naming important cultural advances and regional differences
- Understand the origin and teachings of the Israelites
- Understand the development of ancient Greece
- Explain the importance of gods and goddesses
- Compare Athens and Sparta
- List Greek contributions
- Recognize the causes and effects of the Peloponnesian War
- Explain how the geographical location of ancient Rome contributed to the shaping of Roman society and the expansion of its political power in the Mediterranean region
- Describe the government of the Roman Republic and its contribution to the development of democratic principles
- Describe the origins of Christianity and its central features
- Identify the major events of Roman expansion
- Explain how internal and external forces led to the disintegration of the Roman Empire
- Describe the contribution of Roman civilization to law, literature, poetry, architecture, engineering and technology

WORLD LANGUAGE

Seventh grade students will strengthen their communication skills in the Spanish language. They will maintain their skills through listening, speaking, reading and writing at a higher level. They will further explore their knowledge and understanding of Spanish cultures. Students will increase connections with other disciplines and make deeper comparisons into the nature of language and culture. Students will continue to participate in multilingual communities at school, at home and around the world.

In grade seven, students who wish to further develop their World Language skills may opt to change their course of study from Spanish to French. They will acquire the same fundamentals as those enumerated under the grade five and six Spanish guidelines at an accelerated pace.

Communication

- Exchange information and knowledge
- Express likes and dislikes
- Express needs and emotions
- Understand/Express learned expressions, sentences, questions and polite commands
- Write simple paragraphs and compositions
- Narrate in the present and future

Culture

- Identify distinctive cultural products from the target culture such as toys, clothes, foods, currencies, games, traditional crafts, and musical instruments

Comparisons

- Identify words in the target language that are used frequently in English
- Analyze how idiomatic expressions work in both languages
- Recognize grammatical categories such as tense, gender and agreement in the target language and English
- Identify and discuss cultural characteristics of the target culture and compare and contrast them to cultural characteristics of their own culture

Connections

- Obtain information and knowledge related to other disciplines from sources in the target language such as reading age appropriate authentic fiction in the target culture

Communities

- Apply knowledge of the target language and culture beyond the classroom setting such as conversing with speakers of the target language

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 7

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