



## 7<sup>th</sup> Grade Course Catalog

### LANGUAGE ARTS

#### 7<sup>th</sup> Grade Language Arts

Students in 7th grade language arts engage in rigorous application and reinforcement of grammar skills and a variety of writing strategies and techniques. Students compose essays in which they support their ideas with evidence from various genres or informational texts. Reading includes novels, short stories, poetry, nonfiction, and informational text. Vocabulary study incorporates both grade-level words and academic vocabulary; strategies include using context clues and building understanding of multiple meaning words through analogies.

### SOCIAL STUDIES

#### 7<sup>th</sup> Grade World History

Seventh grade students will explore the social, cultural, geographical, political and technological changes that occurred after the fall of the Roman Empire. Students will also study the Middle Ages, including the Middle East, Africa, China, Japan and Europe. There is a heavy emphasis on western civilization in Europe during the Renaissance and Reformation. Students will compare and contrast the history and geography of civilizations that were developing concurrently throughout these continents during medieval times. Students will examine the growth in economic interactions among civilizations as well as the exchange of ideas, beliefs, technologies, and commodities. Seventh grade students will end the year by examining the Mesoamerican and Andean civilizations, and the age of European explorations and colonizations. Appropriate informational texts and primary sources will be used in order to deepen the understanding of how these civilizations influence the modern world.

### SCIENCE

#### 7<sup>th</sup> Grade Science

Seventh grade science is a broad introduction to the study of the life and chemical sciences. Topics include: the structure, composition, and behavior of matter, atmospheric concentration and processes, cells, bodily organization, human body systems, cellular processes including photosynthesis and cellular respiration, genetics and heredity, and adaptations. The processes of data analysis, providing evidential support of scientific claims, and communicating their findings to a specific audience are strengthened through numerous cooperative peer group interactions and hands-on laboratory activities throughout the school year. Students will end seventh grade science with a better understanding of how scientists complete scientific processes, including cross-curricular techniques beneficial in Language Arts, Mathematics, History, and the Arts.

# MATHEMATICS

## 7<sup>th</sup> Grade Math

**Prerequisite: Students must successfully complete 6<sup>th</sup> Grade Math (Level 1).**

In 7<sup>th</sup> Grade Math, students will use problem solving strategies and technology to master Tennessee state standards for the 7<sup>th</sup> grade. These skills include working with rational numbers and percentages, solving equations, working with proportions, understanding geometric figures, and using techniques of statistics and probability. Students will also begin to look at linear and nonlinear functions and how those apply to real world scenarios. Students will be expected to persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others as outlined by the state standards in preparation for the 7<sup>th</sup> grade TNReady test.

## 7<sup>th</sup> Grade Pre-Algebra

**Prerequisites: Students must complete 6<sup>th</sup> Grade Math (Level 2) with a yearly average of 85% or above; 6<sup>th</sup> grade math teacher recommendation.**

7<sup>th</sup> grade Pre-Algebra is a student's first introduction of a high school level math course that uses problem solving situations, physical models and appropriate technology to extend algebraic thinking and engage student reasoning. This course will focus on 8<sup>th</sup> grade state of Tennessee math standards and begin with a study of the real number system as well as solving multi-step equations. Word problems are deeply embedded within the course, and students use algebraic concepts in order to solve them. In addition to solving equations, students will explore functions, writing equations, graphing linear equations, solving and graphing systems of equations, geometry and statistics. Students will be expected to persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others as outlined by the state standards in preparation of the 8<sup>th</sup> grade TNReady test.

## 7<sup>th</sup> Grade Honors Algebra 1

**Prerequisites: Students must complete 6<sup>th</sup> Grade Math (Level 3) with a yearly average of 85% or above; 85% or above on the Algebra 1 Placement Test; 6<sup>th</sup> grade math teacher recommendation.**

Algebra 1 is an honors level, high school math course that uses problem solving situations, physical models and appropriate technology to extend algebraic thinking and engage student reasoning. Word problems are deeply embedded within the course and students use algebraic concepts in order to solve them. Problem solving and making mathematical connections to real world problems are critical to a student's success in this course. Concepts emphasized in the course: solving linear equations and inequalities, writing equations and graphing linear equations, systems of equations and inequalities, graphing non-linear functions, analyzing transformations of a parent function, factoring, quadratic equations, radical and exponential equations and rational expressions. Students will be expected to persevere in problem solving, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others as outlined by state standards. Students enrolled in Algebra I must take the Algebra I TNReady test. This assessment will count up to 25% of the 2<sup>nd</sup> semester average.

**Academic Classes Note: INDIVIDUAL TEACHER REQUESTS WILL NOT BE GRANTED.**