

8th Grade Language Arts

Eighth Grade students will receive instruction in reading, writing, and listening, speaking and viewing. By the end of 8th grade, students will be able to:

- Explain and identify, verbally and in writing, evidence from a text in order to support their analysis
- Identify, explain, and analyze a theme or central idea in a work
- Make connections between themselves and a text, both personally and socially
- Analyze word choice, tone and connotation/denotation
- Compare and contrast literary works
- Identify author's purpose and point of view
- Produce developmentally-suitable writing which is clear, organized, and appropriate for the task, audience and overall purpose
- Use technology to aid in the production of writing, including publishing and research
- Demonstrate understanding of research through the use of multiple sources while avoiding plagiarism
- Follow Standard English capitalization, punctuation, spelling and grammar in various contexts (writing, speaking, reading and listening)

8th Grade Mathematics

Eighth Grade students will be actively engaged in developing mathematical understandings in real and relevant contexts. By the end of 8th grade, students will be able to:

- Understand and use Algebraic Reasoning
- Understand and use Integers and Rational Numbers
- Understand Patterns and Functions
- Understand Perimeter, Area, and Volume
- Perform basic geometric constructions/figures Sketch, model, and describe cross-sections of three-dimensional figures
- Understand transformations and apply properties of similarity
- Understand and apply the Pythagorean Theorem
- Understand the connections between proportional relationships, lines, and linear equations
- Analyze and solve linear equations and pairs of simultaneous
- Demonstrate the use of percent
- Simplify and evaluate algebraic expressions and solve linear equations in one variable
- Describe patterns in the graphs of both direct and inverse proportional relationships
- Understand Measurement: Two-Dimensional Figure
- Use measures of central tendency and variation to collect, analyze data, and understand the role of probability in sampling
- Understand Logic and Discrete Math
- Problem solve, develop arguments, use language of mathematics, make connections, and communicate

8th Grade Science

Eighth Grade students will study life science through an inquiry- based approach. This course will provide a smooth transition from elementary life science concepts to high school biology. By the end of 8th grade, students will be able to:

- Explain the effects of the relative position of the Sun, Earth and Moon
- Analyze the composition of our solar system
- Analyze the significant role of water in earth processes
- Explain how the distribution of land and oceans affects climate
- Investigate the composition and formation of Earth's surface
- Describe processes that cause gradual changes in Earth's surface
- Compare various sources of energy and describe their use and methods of conservation

8th Grade Social Studies

Eighth Grade students will study the history, geography, political structures, and economics of Europe and the United States of America. By the end of 8th grade, students will be able to:

- Identify and explain significant historical developments leading to and of 20th and 21st century in the U.S.
- Describe the development of the United States.
- Explain the impact of location, climate, physical characteristics, natural resources, and population size on these regions of the modern world
- Describe the cultural characteristics of the Civil and Revolutionary War
- Describe the impact of governmental policies and individual behaviors on these regions of the modern world
- Describe different economic systems and economic policies as they relate to these regions of the modern world