

## Social Studies

Social Studies is divided into four strands; civics and government, economics, geography, and history. In Eighth Grade these strands are studied through the study of US History 1607-1877.

Through the study of US History students will gain content knowledge as well as an understanding of concepts, skills, and processes such as:

- Understand that the U.S. Constitution represents a collection of compromises.
- Understand the spectrum of political philosophy in our democracy.
- Understand the impact of technological developments on the evolution of the U.S.
- Understand the development of industry in the U.S. and how it affects our nation today.
- Be aware of the evolution of the free enterprise system based on capital and labor.
- Review the geography of the United States.
- Understand the impact of U.S. geography and natural resources on the development of the nation.
- Understand the interconnection of economic, political, and social development in U.S. history.
- Understand that the facts of history, the causes and effects, and its impact on people and government today.

## Science

Science is divided into three primary areas: life, earth & space, and physical. In Grade 8 the primary area of study is Physical Science:

Through the study of Physical Science students will gain content knowledge as well as an understanding of the following concepts, skills, and processes including:

- The force of nature and the relationship to each other.
- That matter is composed of particles and all properties and changes can be explained by interactions of these particles.
- Energy concepts
- Motion, Forces, and Simple Machines
- Explain motion, speed, velocity, and acceleration.
- Newton's three Laws.
- How machines are derived from simple machines.
- All matter is made up of atoms.
- Solutes, solvent, solution, and solubility.
- Writing of chemical symbols, formulas, and simple equations.
- Conduction, convection, and radiation
- Electrical circuits

*Our mission is to be a continuously improving, learning community, providing quality services to enable all children to master the knowledge and competencies necessary to function skillfully throughout life.*

- Kinetic/Potential Energy



## Curriculum Brochure

### Eighth Grade

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## English Language Arts

English Language Arts (ELA) comprises four areas; reading, writing, language, and speaking & listening. Within these four areas there are many categories, which when all brought together encompass student literacy.

Within these four areas are many categories. In Eighth Grade, these are the skills and understandings we focus on in each area:

### **Reading:**

- Read challenging texts with an eye towards analyzing how the author uses words and writing style to entertain or persuade the reader.
- Analyze authors writing on the same topic disagree on matters of fact, interpretation or opinion.
- Read critically, think like and author when taking apart text.
- Cite evidence from the text, or multiple texts, to support analysis of the story or topic.

### **Writing:**

- Build extended writing pieces around a central idea or theme providing evidence.
- Write strong narratives with precise word choice and smooth transitions.
- Complete research projects that include several sources and a tightly focused question.
- Cite evidence using proper techniques (e.g., footnotes, bibliography).
- Use a computer to produce writing pieces and presentations.

### **Language:**

- Rely on context and background knowledge to determine the meaning of unknown words.
- Use common, grade level Greek and Latin prefixes, roots, and suffixes to define the meaning of a word. (e.g., semi, semiannual, semicircle).
- Interpret and use figures of speech (e.g., irony, puns) in writing, speaking and listening.

### **Speaking and Listening:**

- Paraphrase information and analyze a speaker's evidence during discussions.
- Actively participate in classroom discussions by being prepared and thoughtful about the topic being covered.
- Present well-supported claims and opinions, through formal presentations, using multi-media to support the presentation.

### Mathematics

Students in Eighth Grade are placed into one of three math classes: Pre-Algebra, Algebra I, or Geometry.

**Pre-Algebra:** Students acquire skills in problem solving using multiple steps with a variety of strategies, use mathematical reasoning to identify information that will help solve a problem, communicate, in both writing and orally, mathematical strategies and operations, use operations, using grade level math vocabulary in writing equations to make connections for real world

**Algebra I:** Students will continue their investigations by progressing to more abstract representations such as linear and nonlinear functions, algebraic expressions, and equality. Students will find that a central theme of this course and algebraic thinking in general, is the study of patterns which in turn leads to an understanding of relations and functions. Students will recognize, describe, and generalize patterns and build mathematical models to describe, interpret, and predict the behavior of real-world phenomenon. And finally, students will come to understand that algebraic processes are important tools that students can use throughout their lives.

**Geometry:** Students relate and apply geometric concepts to algebra, statistics, data analysis, probability, and discrete mathematics. Realistic and relevant applications help answer the question "When am I ever going to use this stuff?" Sports, space, world cultures, and consumerism are just a few of the real-life problem settings that students explore. Students connect mathematics to other topics they are studying, like biology, geography, art, history, and health, through problems that are rich in geometric content.

