

Middle School - 8th Grade

Curriculum

English

The English curriculum in 8th grade focuses on literature, grammar, and composition. Literary devices will be taught and vocabulary will be emphasized through the study of novel texts. Students will develop their understanding of the writing process for a variety of purposes through specific writing projects. Grammar will be studied independently, and skills will be emphasized throughout the entire literature curriculum. Reading for the year will consist of two to three novels, supplemented by short stories, poetry, non-fiction, and other forms of literature from the literature textbook. Reading comprehension and completion will be assessed through pop and planned reading quizzes and tests. Writing skills will be developed through guided instruction. A minimum of four essays are required and consist of a book report, research report (expository) with a bibliography, literary analysis essay, and character analysis essay. Instructions, guidelines, and specific dates will be given in class. MLA formatting and style will be taught and used. Activities will include a combination of class work, discussions, homework, quizzes, test, and projects that address various learning styles.

Math – Algebra I*

This course explores the introductory concepts of first year high school algebra. This accelerated 8th grade course examines the basic structure of real numbers, algebraic expressions, and functions. Students explore linear equations, inequalities, functions and systems, quadratic equations and functions, polynomial and exponential expressions, graphing in the Cartesian Plane, probability, and the elementary analysis of functions. Emphasis is placed on establishing concepts and skills that will provide a foundation for continuing in mathematics to subsequent levels of algebra, geometry, and trigonometry.

*Middle school courses do not count for upper school credit.

Math – Honors Algebra I*

In Honors Algebra I, middle school students develop algebraic fluency to solve equations and perform manipulations with numbers, variables, equations, and inequalities. Students learn to use number properties to simplify expressions or justify statements; describe sets

with set notation and find the union and intersection of sets; simplify and evaluate expressions involving variables, fractions, exponents, and radicals; work with integers, rational numbers; and graph and solve equations, inequalities, and systems of equations. Students learn to determine whether a relation is a function and how to describe its domain and range; use factoring, formulas, and other techniques to solve quadratic and other polynomial equations; and translate word problems into mathematical equations and then use the equations to solve original problems.

Honors Algebra I covers all of the topics from 8th grade Algebra I but presents topics at a more robust pace and presents students with more challenging assignments and assessments. This course places an emphasis on reasoning skills and requires more independent practice outside of school.

Recommendations for Honors Algebra I are based on a student maintaining at least a B average in Accelerated Pre-Algebra, or a student maintaining an A average in Pre-Algebra and scoring in at least the 88th percentile on one of the math ERB sections.

Science

The 8th grade science curriculum includes the study of both physics and chemistry. In chemistry, students will study the concepts of physical and chemical properties of matter, be given an introduction to the periodic table, learn how to balance simple equations, and identify the basic types of chemical reactions. In physics, students will study Newton's Laws of Motion, forces, simple machines, and energy. Basic laboratory and investigative skills will be used throughout the year in both chemistry and physics. An understanding of the metric system, collecting and graphing data, and laboratory safety will be integrated into all units of study.

Social Studies - History

Social studies in 8th grade focuses on United States history from colonization to the modern era. Students will gain an understanding of the people, places, and events that have influenced and impacted the development of the United States. Activities will include a combination of class work, analytical essays, group projects, quizzes, homework, tests, and projects that will address all learning styles.

Foreign Language - Spanish I*

The study of Spanish in 8th grade develops communication skills in listening, speaking, writing, reading, and non-verbal communication. It also develops cultural awareness by developing an understanding and appreciation of Spanish-speaking people, their cultures, and civilizations. Students learn through a variety of methods including (but not limited to) listening activities, projects, cooperative group learning, lecture, technology, oral presentations, and individual discovery. This course builds on learning from the previous year.

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Honors Spanish II*

Honors Spanish II is a higher-level class that proceeds at a fast pace and covers more material than a regular class. This course builds on the program begun in Spanish I, adding new vocabulary and more complex grammatical structures while at the same time reinforcing what has been previously learned. As in the past, the four skills of reading, writing, speaking, and listening will be continually emphasized. To accomplish this, the student will be expected to use previously learned vocabulary/grammar structures and also to learn new class material.

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Physical Education

During 8th grade physical education, students will participate in individual skill development, team sports, and weight training. This development is encouraged in a positive atmosphere emphasizing sportsmanship, team cooperation, and sports psychology. The program is designed for participation at all levels of athletic ability by placing emphasis on total participation rather than on the development of the gifted athlete. Focus is placed on muscular strength, endurance, and flexibility through various circuit workouts and agility movements. Fitness assessments are conducted twice yearly with resulting discussions on the components and strategies for improvement. A primary emphasis is placed on student lifelong participation in physical fitness.

Fine Arts – Art (Nine Weeks)

Eighth grade art is a survey of art fundamentals designed as a general introductory studio course to familiarize students with the major studio areas and art concepts including an emphasis on the basic elements and principles of composition and design. This study will include drawing and painting, ceramics, printmaking, graphic arts, and art history. The art elements and

principles of design reinforce the processes of “learning to see.” Students are encouraged to find the creative potential of several media as it applies to the individual problem solving process.

Fine Arts – Drama (Nine Weeks)

Designed as an enrichment course for 8th grade students, this course is a survey of the many aspects of theatre. Students will have an introduction to theatre as an art form, as well as opportunities to foster and develop production and performance skills.

Public Speaking (Nine Weeks)

Public Speaking is an enrichment course designed for the student to gain more poise and confidence in his/her communication skills. Students will learn the roles of verbal and nonverbal communication, contexts, and forms of public speaking, analyze the role of the audience, and research techniques for speeches. Students will evaluate the strength and weaknesses of speeches, as well as present a minimum of four speeches.

Technology - Design & Physical Computing (Nine Weeks)

The 8th grade technology course, Design & Physical Computing, connects students to the broader social impacts of computing through use of the design process. Through a series of design challenges, students will learn how to better understand the needs of others while developing a solution to a problem. During the second half of this course, students can choose to explore physical computing or digital design. With physical computing, students will use Adafruit’s Circuit Playground device to develop programs that use similar inputs and outputs that we see in many modern smart devices. Through digital design, students will explore the tools of different Adobe programs to create engaging posters, videos, social media graphics, and more.

