Middle School Course Descriptions
Academic Year 2020-2021

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Middle school electives are listed in the high school catalog.

The following codes appear next to each course name and indicate the versions of courses which are available.

* = one semester course
H = Honors Level Course (National Curriculum)
Ed = E-Dynamics Course

English Language Arts 6

This full-year course eases students' transition to middle school with engaging, age-appropriate literary and informational reading selections. Students learn to read critically, analyze texts, and cite evidence to support ideas as they read, which includes a full unit on Lewis Carroll's classic novel *Through the Looking Glass*. Vocabulary, grammar, and listening skills are sharpened through lessons that give students explicit modeling and ample practice. Students also engage in routine, responsive writing based on texts they have read. In extensive, process-based writing lessons, students write topical essays in narrative, informative, analytical, and argumentative forms.

English Language Arts 7

Students grow as readers, writers, and thinkers in this middle school full-year course. With engaging literary and informational texts, students learn to think critically, analyze an author's language, and cite evidence to support ideas. Students complete an in-depth study of Jack London's classic novel *White Fang* and read excerpts from other stories, poetry, and nonfiction. Explicit modeling and ample opportunities for practice help students sharpen their vocabulary, grammar, and listening skills. Students also respond routinely to texts they have read. In extensive, process-based writing lessons, students write topical essays in narrative, informative, analytical, and argumentative formats.

English Language Arts 8

In this full-year course, student's build on their knowledge and blossom as thoughtful readers and clear, effective writers. A balance of literary and informational texts engage students throughout the course in reading critically, analyzing texts, and citing evidence to support claims. Students sharpen their vocabulary, grammar, and listening skills through lessons designed to provide explicit modeling and ample opportunities to practice. Students also routinely write responses to texts they have read, and use more extensive, process-based lessons to produce full-length essays in narrative, informative, analytical, and argumentative formats where a focus will be on preparation for high school level writing.

Social Studies

World History and Geography: Ancient Civilizations A/B

This course investigates the origins and development of ancient societies of major western and non-western civilizations. Included are the societies of the Near East, Africa, the ancient Hebrew civilization, Greece, Rome, and the classical civilizations of India and China. For each of these societies, emphasis is placed on the major contributions, achievements, and beliefs that have influenced civilizations across the centuries to the present day. This course stresses the special significance of geography in the development of the human story and provides the opportunity to study the everyday lives of people living in vastly different areas of the world. The course content focuses on the people in ancient societies; their problems and accomplishments; their social, economic, political structures, and belief systems; the tools and technology they developed; the arts they created; the architecture; the literature they produced; their explanation for natural phenomena, and their direct or indirect contributions to issues such as the role of women and the practice of slavery.

World History and Geography: Medieval and Early Modern Times A/B

This course explores world history and geography from the Fall of Rome through the Age of Enlightenment. The course investigates the social, cultural, and technological changes during this period. This course briefly reviews the role of archaeologists and historians in uncovering the past. It goes on to examine Islam as a religion and as a civilization. The course examines the spread of Islam through Africa, the rise of the Mayan, Incan, and Aztec civilizations; the civilizations of China and Japan; Europe during the High Middle Ages; the turbulent ages of the Renaissance, Reformation, and Scientific Revolution. This course seeks to enhance understanding of the interconnection of past events, people, and ideas to events and issues of importance in the world today.

United States History & Geography: Growth and Conflict A/B

The course examines United States history and geography concentrating on the growth of the United States during the period of colonization through the Age of Industrialization. The course begins with an intensive investigation and review of the major ideas, issues, and events preceding the founding of the nation. The course then concentrates on the shaping of the Constitution and the nature of the government that it created. The development of unique regions in the West, Northeast, and the South and the causes and consequences of the Civil War, is covered in depth. The course studies the movement of people into and within the United States; the experiences of diverse groups (women, racial, religious, ethnic, and economic classes) and their contributions to the evolving American identity. The course also connects historical issues to current affairs in order to develop a greater understanding of the basic institutions and policies of the nation.

Life Science

Examining a broad spectrum of the biological sciences, Life Science is a two-semester course for middle school students that builds on basic principles of scientific inquiry and translates those skills to more complex, overarching biological themes. The course includes units that help students understand the definition, forms, and classifications of living organisms and learn to analyze the diversity of each unique group of living organisms. Other units introduce students to the structures and functions of cells, cell theory, and cell reproduction. These larger themes are then applied to other topics, such as genetics, Darwinian Theory, and human biology and health. An introduction of ecology draws all of these concepts together to examine the interrelationships that help to maintain life on Earth.

Earth Science

Students enrolled in this dynamic course explore the scope of Earth sciences, covering everything from basic structure and rock formation to the incredible and volatile forces that have shaped and changed our planet. As climate change and energy conservation become increasingly prevalent in the national discourse, it will be important for students to understand the concepts and causes of our changing Earth. Earth Science is a two-semester course that provides a solid foundation for understanding the physical characteristics that make the planet Earth unique and examines how these characteristics differ among the planets of our solar system.

Physical Science

Encompassing the branch of science that studies nonliving systems, Physical Science is an exciting course that inspires students to explore key concepts and theories, each of which explains and/or models a particular aspect of the behavior of nature. Students enrolled in this two-semester course examine the chemical building blocks of our physical world and the composition of matter. Additionally, students explore the properties that affect motion, forces, and energy on Earth. Building on these concepts, the course covers the properties of electricity and magnetism and the effects these phenomena exhibit on the planet. A cumulative study of how each of these concepts elicits reactions across the solar system rounds out this dynamic course.

Mathematics 6

This course begins by connecting ratio and rate to multiplication and division, allowing students to use ratio reasoning to solve a wide variety of problems. Students further apply their understanding of multiplication and division to explain the standard procedure for dividing fractions. This course builds upon previous notions of the number system to now include the entire set of rational numbers. Students begin to understand the use of variables as they write, evaluate, and simplify expressions. They use the idea of equality and properties of operations to solve one-step equations and inequalities. In statistics, students explore different graphical ways to display data. They use data displays, measures of center, and measures of variability to summarize data sets. The course concludes with students reasoning about relationships among shapes to determine area, surface area, and volume.

Mathematics 7

This course begins with an in-depth study of proportional reasoning during which students utilize concrete models such as bar diagrams and tables to increase and develop conceptual understanding of rates, ratios, proportions, and percentages. Students build on their proportional reasoning to solve problems about scale drawings by relating the corresponding lengths between objects. Students' number fluency and understanding of the rational number system are extended as they perform operations with signed rational numbers embedded in real-world contexts. In statistics, students develop meanings for representative samples, measures of central tendency, variation, and the ideal representation for comparisons of given data sets. Students develop an understanding of both theoretical and experimental probability. Throughout the course, students build fluency in writing expressions and equations that model real-world scenarios. They apply their understanding of inverse operations to solve multi-step equations and inequalities. The course concludes with a geometric analysis of angle relationships, area, and volume of both two- and three-dimensional figures.

Mathematics 8

The course begins with a unit on input-output relationships that builds a foundation for learning about functions. Students make connections between verbal, numeric, algebraic, and graphical representations of relations and apply this knowledge to create linear functions that can be used to model and solve mathematical and real-world problems. Technology is used to build deeper connections among representations. Students focus on formulating expressions and equations, including modeling an association in bivariate data with a linear equation, and writing and solving linear equations and systems of linear equations. Students develop a deeper understanding of how translations, rotations, reflections, and dilations of distances and angles affect congruency and similarity. Students develop rules of exponents and use them to simplify exponential expressions. Students extend rules of exponents as they perform operations with numbers in scientific notation. Estimating and comparing square roots of non-perfect squares to perfect squares exposes students to irrational numbers and lays the foundation for applications such as the Pythagorean Theorem, distance, and volume.

Pre-Algebra

This full-year course is designed for students who have completed a middle school mathematics

sequence but are not yet Algebra- ready. This course reviews key algebra readiness skills from the middle grades and introduces basic Algebra I work with appropriate support. Students revisit concepts in number and operations, expressions and equations, ratio and proportion, and basic functions. By the end of the course, students are ready to begin a more formal high school Algebra I study.

Algebra I

This full-year course focuses on five critical areas: relationships between quantities and reasoning with equations, linear and exponential relationships, descriptive statistics, expressions and equations, and quadratic functions and modeling. This course builds on the foundation set in middle grades by deepening students' understanding of linear and exponential functions, and developing fluency in writing and solving one-variable equations and inequalities. Students will interpret, analyze, compare, and contrast functions that are represented numerically, tabularly, graphically, and algebraically. Quantitative reasoning is a common thread throughout the course as students learn how they can use algebra to represent quantities and the relationships among those quantities in a variety of ways. Standards of mathematical practice and process are embedded throughout the course, as students make sense of problem situations, solve novel problems, reason abstractly, and think critically.

Spanish 1

Middle school students begin their introduction to Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

Spanish 2

Students in middle school continue their introduction to Spanish with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major Spanish-speaking areas in Europe and the Americas.

French 1

Students in middle school begin their introduction to French with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major French-speaking areas in Europe and across the globe.

French 2

Middle school students continue their introduction to French with fundamental building blocks in four key areas of foreign language study: listening comprehension, speaking, reading, and writing. Each unit consists of an ongoing adventure story, a new vocabulary theme and grammar concept, numerous interactive games reinforcing vocabulary and grammar, reading and listening comprehension activities, speaking and writing activities, and multimedia cultural presentations covering major French-speaking areas in Europe and across the globe.