



COURSE CATALOG APRIL 2023

LOWER SCHOOL (6-8)

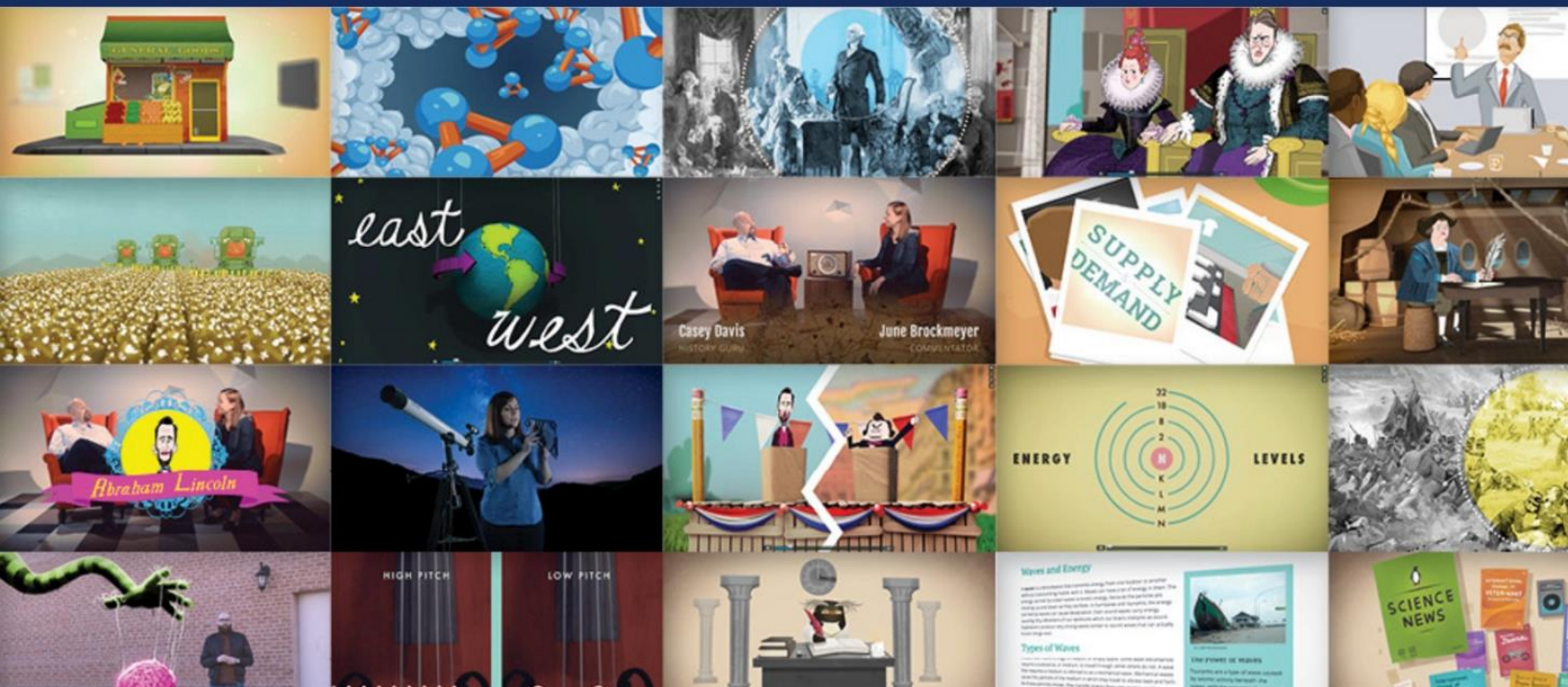




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ENGLISH 6

Part I
Grade: 6
Prerequisite(s):
None
[Course Intro Video](#)

English 6 Part I analyzes informational texts, including biographies, primary documents, instructional documents, film reviews, and persuasive letters. Reading selections include the novel *The Road* by Jack London and informational texts on topics such as the science behind sunsets, the lives of important historical figures, the history of the Olympics, and the process of flotation used by archaeologists. Reading selections demonstrate concepts such as explicit and implicit information, central ideas and key details, and claims and arguments.

Part II
Grade: 6
Prerequisite(s):
English 6 Part I
[Course Intro Video](#)

English 6 Part II explores literary texts from various genres, including novels, short stories, poems, and plays. Readings include *The Wonderful Wizard of Oz* by L. Frank Baum, excerpts from *Little Women* and *The Adventures of Tom Sawyer*, and poetry by Robert Louis Stevenson, Robert Frost, and Carl Sandburg as well multimedia readings of several videos of famous poems to demonstrate explicit and implicit information, theme, characters, plot, poetic techniques, and figurative language.

ENGLISH 6 HONORS

Part I
Grade: 6
Prerequisite(s):
None
[Course Intro Video](#)

English 6 Honors Part 1 analyzes informational texts, including biographies, primary documents, instructional documents, film reviews, and persuasive letters. Reading selections include the novel *The Road* by Jack London and informational texts on topics such as the science behind sunsets, the lives of important historical figures, the history of the Olympics, and the process of flotation used by archaeologists. Reading selections demonstrate concepts such as explicit and implicit information, central ideas and key details, and claims and arguments.

Honors includes additional examples and practice for students.

Part II
Grade: 6
Prerequisite(s):
English 6 Honors Part I
[Course Intro Video](#)

English 6 Honors Part II explores literary texts from various genres, including novels, short stories, poems, and plays. Readings include *The Wonderful Wizard of Oz* by L. Frank Baum, excerpts from *Little Women* and *The Adventures of Tom Sawyer*, and poetry by Robert Louis Stevenson, Robert Frost, and Carl Sandburg as well multimedia readings of several videos of famous poems to demonstrate explicit and implicit information, theme, characters, plot, poetic techniques, and figurative language.

Honors includes additional examples and practice for students.

ENGLISH 7

Part I
Grade: 6-7
Prerequisite(s):
English 6
[Course Intro Video](#)

English 7 Part I explores informational texts, including biographies, personal accounts of events, presidential speeches, persuasive letters, and differences between types of musical genres. Readings include texts about historical figures such as *The Story of My Life* by Helen Keller, Jane Goodall, and Zora Neale Hurston to demonstrate concepts such as explicit and implicit information, central ideas and key details, and claims and arguments.

Part II
Grade: 6-7
Prerequisite(s):
English 7 Part I
[Course Intro Video](#)

English 7 Part II analyzes literary texts from novels, short stories, fairy tales, poems, and plays. Readings include *Alice's Adventures in Wonderland* by Lewis Carroll, excerpts from *Black Beauty*, and poetry by Emily Dickinson, Robert Frost, William Wordsworth to demonstrate concepts such as comparing how written texts are portrayed in film or audio and ways to understand explicit and implicit information, theme, characters, plot, poetic and dramatic techniques, and figurative language.



ENGLISH 7 HONORS

Part I
Grade: 6-7
Prerequisite(s):
English 6

[Course Intro Video](#)

English 7 Honors Part I explores informational texts, including biographies, personal accounts of events, presidential speeches, persuasive letters, and differences between types of musical genres. Readings include texts about historical figures such as *The Story of My Life* by Helen Keller, Jane Goodall, and Zora Neale Hurston to demonstrate concepts such as explicit and implicit information, central ideas and key details, and claims and arguments.

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Part II
Grade: 6-7
Prerequisite(s):
English 7 Honors Part I

[Course Intro Video](#)

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Honors includes additional examples and practice for students.

ENGLISH 8

Part I
Grade: 7-8
Prerequisite(s):
English 7

[Course Intro Video](#)

English 8 Part I explores analysis of literary and informational texts, including novels, short stories, myths, poems, magazine articles, and autobiographies. Readings include *The Call of the Wild*, short stories such as "The Lottery" and "The Tell-Tale Heart," and infographics and videos to demonstrate concepts such as explicit and implicit information, theme, central idea, figurative language, grammar, usage, and punctuation. Writings include the planning, creating, writing, revising, and editing of a fictional narrative.

Part II
Grade: 7-8
Prerequisite(s):
English 7 Part I

[Course Intro Video](#)

English 8 Part II explores literary and informational texts, including novels, short stories, poems, articles, and political speeches. Readings include excerpts from the novels *Fahrenheit 451*, *Hatchet*, and *Black Beauty*, informational texts about topics such as global warming, fast food, the widespread presence of corn in food, and how sleep affects learning ability, infographics and videos to demonstrate concepts such as explicit and implicit information, theme, central idea, figurative language, grammar, usage, punctuation. Writings include informational and argument.



ENGLISH 8 HONORS

Part I
Grade: 7-8
Prerequisite(s):
English 7
[Course Intro Video](#)

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Honors includes additional examples and practice for students.

Part II
Grade: 7-8
Prerequisite(s):
English 8 Honors Part I
[Course Intro Video](#)

English 8 Honors Part II explores literary and informational texts, including novels, short stories, poems, articles, and political speeches. Readings include excerpts from the novels *Fahrenheit 451*, *Hatchet*, and *Black Beauty*, informational texts about topics such as global warming, fast food, the widespread presence of corn in food, and how sleep affects learning ability, infographics and videos to demonstrate concepts such as explicit and implicit information, theme, central idea, figurative language, grammar, usage, punctuation. Writings include informational and argument.

Honors includes additional examples and practice for students.

INTENSIVE READING

Grade: 6-8
Prerequisite(s):
None

Intensive Reading explores foundational reading skills for middle-school students to remediate gaps in reading fluency, comprehension, vocabulary and vocabulary skills, grammar skills, and writing fluency through responses to a variety of literary and informational texts..



MATH 6

Part I
Grade: 6
Prerequisite(s):
None

[Course Intro Video](#)

Math 6 Part I builds on previously learned concepts such as adding, subtracting, multiplying, and dividing and deepening knowledge of arithmetic with fractions, decimals, and negative numbers to solve real-world problems. Topics include: ratios, unit conversions, geometry, and working with equations.

Part II
Grade: 6
Prerequisite(s):
Math 6 Part I

[Course Intro Video](#)

Math 6 Part II builds on previously learned concepts such as adding, subtracting, multiplying, and dividing and deepening knowledge of arithmetic with fractions, decimals, and negative numbers to solve real-world problems. Topics include: ratios, unit conversions, geometry, and working with equations.

MATH 6 HONORS

Part I
Grade: 6
Prerequisite(s):
None

[Course Intro Video](#)

Math 6 Honors Part I builds on previously learned concepts such as adding, subtracting, multiplying, and dividing and deepening knowledge of arithmetic with fractions, decimals, and negative numbers to solve real-world problems. Topics include: statistics, ratios, unit conversions, geometry, writing and evaluating expressions with variables and exponents, and working with equations.

Part II
Grade: 6
Prerequisite(s):
Math 6 Part I

[Course Intro Video](#)

Math 6 Honors Part II builds on concepts such as positive and negative integers and fractions to learn about rational numbers and how to compare them. Topics include: finding the distance between points on the number line and in the coordinate plane, solving geometry problems, relationships between variables and how to represent them, ratios and unit rates, solving real-world problems, data and how to display and mathematically describe data.

MATH 7

Part I
Grade: 6-7
Prerequisite(s): Algebra I

[Course Intro Video](#)

Math 7 Part I explores adding, subtracting, multiplying and dividing rational numbers by using analogies, number lines, rules, and properties. Topics include solving problems involving proportional relationships given in tables, diagrams, graphs, equations, and verbal descriptions. Geometry topics include solving problems involving scale drawings, circles, angle relationships, areas, volumes, three-dimensional shapes, and drawing geometric shapes.

Part II
Grade: 6-7
Prerequisite(s):
Math 7 Part I

[Course Intro Video](#)

Math 7 Part II explores subtracting and dividing rational numbers by using different methods to perform four operations. Topics include: interpreting proportional relationships and equivalent expressions, writing and solving linear equations and inequalities to solve real-world problems, comparing two data sets of random samples using their center values and variability measures to make conclusions about populations. Geometry topics include solving problems that involve the area, surface area, volume, and cross-sections of two- or three-dimensional objects.



MATH 7 HONORS

Part I
Grade: 6-7
Prerequisite(s): Algebra I
[Course Intro Video](#)

Math 7 Honors Part I explores adding and multiplying rational numbers by using number lines, rules, and properties. Topics include: how to solve problems by finding and comparing unit rates, writing expressions using properties, writing and solving simple linear equations using different methods, probability and statistics to interpret and calculate simple probabilities, and populations and samples. Geometry topics include solving problems involving scale drawings, circles, and angle relationships.

Part II
Grade: 6-7
Prerequisite(s):
Math 7 Part I
[Course Intro Video](#)

Math 7 (2 of 2) explores subtracting and dividing rational numbers by using different methods to perform four operations. Topics included: interpreting proportional relationships and equivalent expressions, writing and solving linear equations and inequalities to solve real-world problems, comparing two data sets of random samples using center values and variability measures to make conclusions about populations. Geometry topics include solving problems that involve the area, surface area, volume, and cross-sections of two- or three-dimensional objects.

MATH 8

Part I Grade: 7-8
Prerequisite(s): Math 7
[Course Intro Video](#)

Math 8 Part I explores rational and irrational numbers, solving linear equations from contextual situations, and analyzing properties of functions with a focus on linear functions.

Part II
Grade: 7-8
Prerequisite(s):
Math 8 Part I
[Course Intro Video](#)

Math 8 Part II explores multi-step equations and proportions, applies knowledge of proportional relationships to geometry to perform transformations on figures, and prove similarity of figures through a series of transformations. Topics include: analyzing linear relationships and functions, solving systems of linear equations using different methods, application of algebraic skills to statistics, analyze and interpret patterns in bivariate data, and finding volumes of circular three-dimensional objects.

MATH 8 HONORS

Part I Grade: 7-8
Prerequisite(s): Math 7
[Course Intro Video](#)

Math 8 Honors Part I explores rational and irrational numbers, solving linear equations from contextual situations, analyzing properties of functions with a focus on linear functions, and scientific notation. Geometric topics include rigid transformations on figures and proving congruence of figures through a series of rigid transformations.

Part II
Grade: 7-8
Prerequisite(s): Math 8 Part I
[Course Intro Video](#)

Math 8 Honors Part II explores multi-step equations and proportions, applies knowledge of proportional relationships to geometry to perform transformations on figures, and prove similarity of figures through a series of transformations. Topics include: analyzing linear relationships and functions, solving systems of linear equations using different methods, application of algebraic skills to statistics, analyze and interpret patterns in bivariate data, and finding volumes of circular three-dimensional objects.

PRE-ALGEBRA

Grade: 6-8
Prerequisite(s):
None
[Course Intro Video](#)

Pre-Algebra is a one-semester math course to build algebraic foundation to prepare students for Algebra I. Topics include: reviewing integers and rational numbers, properties of numbers and working with exponents and roots, mastering the order of operations, variables, how to simplify expressions and solve multi-step equations, lines and linear equations, ordered pairs, the coordinate plane, and graphs..



MS PHYSICAL SCIENCE

Part I
Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

MS Physical Science Part I examines concepts from the fields of chemistry, biology, and ecology. The relationship between matter, energy, and chemical reactions is explored to understand cellular respiration and photosynthesis, while synthetic materials are analyzed to see how they impact society.

Part II
Grade: 6-8
Prerequisite(s):
MS Physical Science Part I

[Course Intro Video](#)

MS Physical Science Part II investigates concepts from ecology and geology to explore the interactions between and among organisms in an ecosystem. Topics covered include types of rocks, the rock cycle, and Earth's resources to explore how Earth's processes can lead to natural hazard events and severe weather, and then discover how technology can help during disasters, as well as other benefits of technology.

MS BIOLOGY AND PHYSICAL SCIENCE

Part I
Grade: 6-8
Prerequisite(s): None

[Course Intro Video](#)

MS Biology and Physical Science Part I investigates the interaction between systems and what factors affect their growth, and the life cycles of plants and animals to find out how they reproduce plants and animals. Topics include: cells, the hierarchy of organization, covering tissues, organs, and organ systems.

Part II
Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

MS Biology and Physical Science Part II explores topics through many creative and interactive assets, including virtual labs and review games to immerse students in 21st-century online learning. Topics include: energy and its transformation, matter, natural cycles, the effect of the sun on ocean and air currents, different types of pollution, and the effects of greenhouse gases on the Earth's climate.

MS ENVIRONMENTAL SCIENCE

Part I
Grade: 6-8
Prerequisite(s): None

[Course Intro Video](#)

MS Environmental Science (1 of 2) examines life science concepts from biology, ecology, environmental sciences, and explores scientific process to investigate the questions of ecology and genetic technology.

Part II Grade: 6-8
Prerequisite(s):
MS Environmental Science Part I

[Course Intro Video](#)

MS Environmental Science (2 of 2) examines physical science, such as physics and space science, and the history of science to highlight influential scientists.



MS WORLD HISTORY: PEOPLES OF ANCIENT WORLD

Part I
Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

MS World History: Peoples of the Ancient World Part I explores geographical, social, economic, and political foundations of early civilizations in Mesopotamia, Egypt, Ancient Israel, and India as they shift from nomadic societies to agricultural societies. The study of these civilizations includes the impact of geography, early history, cultural development, and economic change. The geographic focus includes the study of physical and political features, economic development and resources, and migration patterns.

Part II
Grade: 6-8
Prerequisite(s):
MS World History Part I

[Course Intro Video](#)

MS World History: Peoples of the Ancient World Part II explores the geographic, political, economic, and cultural development of ancient Greece, Rome, and China and applies historical thinking skills to understand implications of ancient literature, art, and philosophy on later Western culture. The course examines the birth and spread of Judaism, Christianity, Taoism, and Confucianism..

MS WORD HISTORY ANCIENT TIMES TO 1770s

Part I
Grade: 6-8
Prerequisite(s): None

[Course Intro Video](#)

MS World History: Ancient Times to 1770s Part I explores the social, cultural, and technological developments occurring concurrently in Europe, Africa, and Asia in the years AD 500–1789. It also examines how archaeologists and historians uncover the past.

Part II
Grade: 6-8
Prerequisite(s):
MS World History Ancient Times
Part I

[Course Intro Video](#)

MS World History: Ancient Times to 1770s Part II explores the growing economic interaction among civilizations during the Renaissance, Reformation, the Age of Exploration, and how the Enlightenment gave rise to democratic ideas that still resonate today. Topics include: the exchange of ideas, beliefs, technologies, and commodities inspire the Enlightenment philosophy and the interest in reason and authority, natural rights of human beings, the divine right of kings, experimentalism in science, and the dogma of belief.

MS US HISTORY: COLONIZATION TO 1900

Part I
Grade: 6-8
Prerequisite(s): None

[Course Intro Video](#)

MS US History: Colonization to 1900 Part I explores early American history from pre-Columbian era and closely examines the evolution from the British Colonies to the creation of the United States. A close look at the ideology of the framing documents and nature of the American republic set against the backdrop of the challenges of growth and sectional divisions and conflict.

Part II
Grade: 6-8
Prerequisite(s):
MS US History Part I

[Course Intro Video](#)

MS US History: Colonization to 1900 Part II explores westward expansion, early Spanish missions in western North America through to Reconstruction, the Second Industrial Revolution, and connects these events to how policies and cultures are shaped. Topics include: causes and effects of the Texas Revolution and the Mexican American War; the California gold rush; American Civil War, Indian Wars of the 19th Century.



MS CIVICS AND ECONOMICS

Part I
Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

MS Civics and Economics Part I examines the general structure and functions of the US systems of government, the roles and responsibilities of citizens to participate in the political process, and the relationship of the individual to the law and legal system. Topics include: The Declaration of Independence, analysis of the principles US Constitution and the debates surrounding its ratification, examining validity of sources, landmark Supreme Court cases, and the voting process.

Part II
Grade: 6-8
Prerequisite(s):

MS Civics and Economics Part I

[Course Intro Video](#)

MS Civics and Economics (2 of 2) explores the economic structures for individuals, businesses, and government; the examination of how institutions influence the market economy; and how government interacts and influences the private sector. Topics include: personal finance, preparing a personal budget, national budget, analysis of interest rates, investing, debt, influence of natural resources on economies, trade, market systems, taxes, labor, and regulatory agencies.



MS SPANISH 1

Part I
Grade: 6-8
Prerequisite(s): None
[Course Intro Video](#)

MS Spanish 1 Part I introduces the basics of the Spanish language by learning through reading, writing, listening, and speaking about personal interests and hobbies, asking for directions, and discovering the cultures of some Spanish-speaking countries, such as Mexico and Colombia.

Part II
Grade: 6-8
Prerequisite(s):
MS Spanish 1 Part I
[Course Intro Video](#)

MS Spanish 1 Part II explores how to discuss activities with friends, using vocabulary associated with restaurants, traveling, vacations, and exploring cultures of some Spanish-speaking countries, such as Argentina, Spain, and Peru.

MS SPANISH 2

Part I
Grade: 6-8
Prerequisite(s): None
[Course Intro Video](#)

MS Spanish 2 Part I explores how to discuss school subjects, various professions, and daily routines through practice reading, writing, listening, and speaking. The course also explores cultures of some Spanish-speaking countries, such as Venezuela and Chile.

Part II
Grade: 6-8
Prerequisite(s):
MS Spanish 2 Part I
[Course Intro Video](#)

MS Spanish 2 Part II explores how to discuss illness and injury, shopping, and money through reading, writing, listening, and speaking. The course also explores cultures of some Spanish-speaking countries, such as Ecuador, Guatemala, and Cuba.



MS HEALTH

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Middle School Health (1 of 1) explores how behavioral choices, such as nutrition and physical activity, affect health, then provides information to make healthy choices. Topics include: nutrition and physical activity; growth, development, and sexual health; safety and injury prevention; alcohol, tobacco, and other drugs; mental, emotional, and social health; and personal and community health.

MS PHYSICAL EDUCATION

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Middle School Physical Education explores the importance of physical activity. Topics include: sports and recreation, sportsmanship, leadership, and inclusivity, safety while being active, and developing lifelong healthy habits, such as daily activity.

PHYSICAL EDUCATION – GRADE 6

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Physical Education 6 explores fitness, nutrition, exercise basics, and specific sports. Topics include fundamental aspects of physical activity (safety tips, warm-up and cooldown exercises, and good sportsmanship), personal fitness and nutrition, and the importance of regular exercise to encourage lifelong healthy activity. Sports in the course include dance, baseball, basketball, pickleball, volleyball, soccer, and football. Project 1 creates a health and fitness log and project 2 explores the basics of golf.

PHYSICAL EDUCATION – GRADE 7

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Physical Education 7 explores the importance of physical fitness for good health and provides opportunities to participate in a wide variety of activities. Topics include running, strength training, dancing, swimming, pickleball, tennis, volleyball, baseball, bowling, basketball, soccer, and football. Other activities include keeping an exercise and nutrition log and creating an exercise routine for themselves, as well as the importance of warming up and cooling down muscles before and after exercise, health-related versus skill-related fitness, goal setting, and safety.

PHYSICAL EDUCATION – GRADE 8

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Physical Education 8 explores personal health and wellness benefits of physical fitness with a variety of activities, a fitness and nutrition log, and two projects. Project one creates a personal fitness plan and project two creates a synchronized swim routine. Topics include endurance and flexibility applied in activities such as running, hiking, stretching, and dancing, as well as improving fitness and well-being with heart-rate monitoring, nutrition tracking, and interval training. Sports skills are practiced in pickleball, tennis, soccer, hockey, football, baseball, basketball, and bowling.



ART APPRECIATION

Grade: 6-8
Prerequisite(s):
None

What makes an artwork a masterpiece? Why do artists create art? What is the difference between Rococo and Art Nouveau? In this course, students will discover the answers to these questions and more. We examine the elements of art and principles of design, and explore how artists have used these elements and principles in the creation of art for centuries.

BEGINNING PAINTING

Grade: 6-8
Prerequisite(s):
None

This course introduces students to classical and contemporary painting, techniques and concepts, with emphasis on the understanding of its formal language and the fundamentals of artistic expression. Painting from still life, landscape, and life models from observation will be geared towards realism; at the same time, various other painting styles could be explored. Color theory, linear perspective, compositional structure, figure/ground relationships, visual perception, spatial concepts, and critical thinking skills will all be emphasized. Students will study and research major painting styles and movements in historical context. The hope is that students will use this global approach to develop a "critical eye" in evaluation of contemporary painting. Acrylic and watercolors are the mediums used in this class. The main emphasis of this course is to encourage and nourish individuality and creativity.

CAREER EXPLORATION

Grade: 6-8
Prerequisite(s):
None
[Course Intro Video](#)

Career Explorations provides instruction and practice about various topics in the world of work. These topics include jobs, careers, labor markets, traditional and nontraditional occupational roles, ethical and unethical behavior, educational pathways to careers, budgeting, communication in the workplace, and technology in the workplace. There is a short project on problem-solving skills as well as a project on searching for a job, preparing a resume and cover letter, and interviewing for a job.

CHARACTER EDUCATION

Grade: 6-8
Prerequisite(s):
None

Character Education explores values of truthfulness, trustworthiness, responsibility, diligence, and integrity. The course offers specific, real world situations to interpret and connect to these traits to provide safe and appropriate ways to respond in real time. Topics include: identifying bullying, how to develop a bullying-prevention mindset.

COMPUTER BASICS

Grade: 6-8
Prerequisite(s):
None

In Computer Basics (1 od 1), you will learn how to use productivity and collaboration tools, such as G Suite by Google Cloud to create word processing documents, spreadsheets, surveys and forms such as personal budgets and invitations.



DIGITAL SAVVY

Part I and Part II
Grade: 6-8
Prerequisite(s):
None

Digital Savvy (1 of 2) is a one-year (two-semester) course covering required topics in most introductory "Information Technology" classes. Students should have minimal computer usage skills (e.g. keyboarding, mouse, and operating system navigation) prior to starting this course. The course material is designed to appeal to a variety of students, from traditional learners who thrive on written text to audio-visual students who enjoy a multi-media format. All content is delivered through an online system that allows students to work seamlessly both in the classroom and at home. Every chapter contains one or more hands-on activities that allow students to practice and demonstrate understanding of the lesson topics. A Windows or Mac OS computer is required for completion of the hands-on activities.

DRAWING

Grade: 6-8
Prerequisite(s):
None

In Drawing, students will experiment with several different art materials and tools to see what each tool can do best. Students will explore ordinary things around them to become more observant of the structures and meanings of things which can be seen in your their home and community. Your work will be your own study of the forms, textures, movements, and patterns of the things that you see every day.

Each project and each lesson is based on the one before it; so always do the lessons in the order they are given. Be sure to follow the directions exactly regarding which materials, sizes, and subject matter to use for each project. Each lesson will be a study of a new way of drawing. The examples given will show only the method and materials to be used, never the same subject or size as the project assigned. The examples are never to be copied. An example will only show one way of using the technique described.

By becoming more observant, by experimenting with new materials, and by exploring a variety of methods, students will continue to grow in artistic skill and enjoyment. Beyond fundamental skills are various levels of creativity. Each lesson provides room for expressing the technical skill learned in a unique, creative way.

GAMING UNLOCKED

Grade: 6-8
Prerequisite(s):
None

Gaming Unlocked (1 of 1) researches the basics of gaming, from what makes games fun to what makes them work by exploring quality in a variety of games such as mental games, board games, and video games.

This course does not require students to know or learn a programming language. The emphasis is on the history and design of games and the different careers available in the game industry.



INTRODUCTION TO CODING

Part I
Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Introduction to Coding Part I introduces the basic syntax and logic of writing in JavaScript. Topics include: the three types of data: strings, numbers, and Boolean, and their variables; performing operations on variables; basic operations are followed by logic operations and control structures. The course concludes with using procedures to simplify repeated code.

Part II
Grade: 6-8
Prerequisite(s):
Introduction to Coding Part I

[Course Intro Video](#)

Introduction to Coding Part II builds on the basic JavaScript concepts from Introduction to Coding Part I as it explores troubleshooting, testing, and debugging of programs. Topics include: the practices of different types of code documentation, as well as giving and receiving feedback from both users and other developers. The process of solving complex problems is modeled from beginning to end as problems are broken down into smaller pieces and addressed through planning, coding, and putting the pieces together to solve the larger problem.

JAVASCRIPT GAME DESIGN

Part I
Grade: 6-8
Prerequisite(s):
None

JavaScript will teach students JavaScript through coding multiple computer games including, pong, fish, a platformer and tower defense! They then will code or customize their own game! Students will be writing all the code themselves from going through the individual lessons and watching the video reviews. They will learn about variables, functions, listening events, loops, arrays and objects. This course assumes no coding experience and includes self graded quizzes and tests. Students will also upload their work at the conclusion of each project while creating an online portfolio.

MS ART EXPLORATIONS

Grade: 6-8
Prerequisite(s):
None

Arts Explorations encourages students to experience each of the modern arts disciplines including Visual Arts, Theatre, Music, Media Arts and Dance. Students will also be able to identify areas of special interest where they would like continued study and the ways that the arts can be a part of their career paths.

MS PHOTOGRAPHY BASICS

Grade: 6-8
Prerequisite(s):
None

[Course Intro Video](#)

Photography Basics explores proper use of photography equipment, how to build a portfolio of work, and describes the steps to starting a career in this field. Topics include: the habits and etiquette of the profession.

*Photography equipment is not needed. Practice is offered through digital simulations.

MUSIC APPRECIATION

Grade: 6-8
Prerequisite(s):
None

Students will gain a thorough understanding of music by studying the elements of music, musical instruments, and music history, as well as music advocacy. Students will be introduced to the orchestra and composers from around the world. They will be required to be a composer, performer, instrument inventor, and advocate.



PHYTON MULTIPLAYER ADVENTURE

Grade: 6-8
Prerequisite(s):
None

Python Multiplayer Adventure allows students to learn Python by first completing a text based console game and then turning it into a multiplayer adventure! Students will not only learn Python from going through the individual lessons and video reviews but also understand a client server relationship. They will get to code in their own python web server that allows connections through a browser. Students will gain experience using variables, classes, functions, lists, dictionaries, generators and proper Python formatting. Our Python online course is great for anyone interested in preparing themselves for future coding classes. This course assumes no coding experience and includes self graded quizzes and tests.

ROBLOX WORLD CODING WITH LUA

Grade: 6-8
Prerequisite(s):
None

Roblox Worlds Coding with LUA teaches students practical skills for understanding and managing their emotions, setting goals and getting organized, understanding and getting along with others in our diverse world, and making good decisions. Research shows that people who practice these skills have greater academic achievement as students and experience more success and satisfaction as adults.

SCRATCH CODING

Grade: 6-8
Prerequisite(s):
None

Scratch Coding (1 of 1) introduces the basics and logic of programming language in Scratch. Topics include introducing and using the different tools in Scratch; creating programs that include loops, variables, lists, or conditionals; and identifying and fixing errors in a program. The course concludes with putting the tools and concepts altogether to create a larger program.

3D GRAPHICS AND VIDEO

Grade: 6-8
Prerequisite(s):
None

3D Graphics and Video explores digital art, how life relates to art, and how individual works of art are interpreted. Topics include design principles, types and common applications of digital artwork, and techniques for brainstorming and developing an artistic idea, artistic mediums (3D computer graphics, animation, digital video, and digital audio). Supporting topics include expression, purpose, meaning, ethics, testing, critique, improvement, presentation, and distribution in the creation and use of digital media. Course projects include the creation of a digital animation and a piece of digital audio.

2D MEDIA ARTWORK

Grade: 6-8
Prerequisite(s):
None

3D Graphics and Video explores digital art, how life relates to art, and how individual works of art are interpreted. Topics include design principles, types and common applications of digital artwork, and techniques for brainstorming and developing an artistic idea, artistic mediums (3D computer graphics, animation, digital video, and digital audio). Supporting topics include expression, purpose, meaning, ethics, testing, critique, improvement, presentation, and distribution in the creation and use of digital media. Course projects include the creation of a digital animation and a piece of digital audio.



Please note that accelerated learners and academically advanced students can take high school course while in middle school. Please visit our [Upper School \(9-12\) Course Catalog](#) to see the courses offered at the high school level.

Please inform your coach if you are interested in taking any of the high school courses while in middle school.

GTS Administration