



online courses

2022-2023

MIDDLE
SCHOOL
CATALOG
(grades 6-8)



Online Courses Middle School Catalog

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MATH

The two-semester courses are arranged in themed units, each with three to five lessons. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments. By constantly honing the ability to apply their knowledge in abstract and real-world scenarios, students build the depth of knowledge and higher-order skills required to demonstrate their mastery when put to the test.

Math 6 (Apex)

2 semesters

Math 6 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. Course topics include ratios and rates, fraction and decimal operations, and signed numbers. Students continue to build their algebra skills by plotting points in all four quadrants of the coordinate plane and solving equations and inequalities. Geometry topics include area, surface area, and volume, and statistical work features measures of center and variability, box plots, dot plots, and histograms.

Math 7 (Apex)

2 semesters

Math 7 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. Throughout the course, students gain a deep understanding of proportions and their use in solving problems. They extend their fluency with operations on rational numbers and translate among different forms of rational numbers. Algebra topics include simplifying and rewriting algebraic expressions and solving more complex equations and inequalities. Students also sketch geometric figures and explore scale drawings, investigate circle properties and angle relationships, and deepen their understanding of area, volume, and surface area. They see how statistics uses sample data to make predictions about populations and compare data from different data sets. Students gain

a fundamental understanding of probability and explore different ways to find or estimate probabilities.

Math 8 (Apex)

2 semesters

Math 8 delivers instruction, practice, and review designed to develop computational fluency, deepen conceptual understanding, and apply mathematical practices. In this course, students focus on understanding functions — what they are, how to represent them in different ways, and how to write them to model mathematical and real-world situations. In particular, students investigate linear functions by learning about slope and slope-intercept form. Students' understanding of linear functions is extended to statistics, where they make scatter plots and use linear functions to model data. They solve linear equations and equations involving roots, and explore systems of linear equations. Additional topics include exponents, powers of ten, scientific notation, and irrational numbers. Students learn about transformations, and extend that understanding to an investigation of congruence and similarity. Other geometric concepts explored include the Pythagorean theorem, angle relationships, and volumes of cylinders, cones, and spheres.

SCIENCE

The two-semester courses are arranged in themed units, each with two to three lessons. In each unit, activities make complex ideas accessible to students as they discover the nature of science through focused content, interactive mini-investigations, multi-modal representations, and personalized feedback. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments.

Earth and Space Science (Apex)

2 semesters

Middle School Earth and Space Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply

scientific practices. Students explore concepts including Earth's systems, engineering design, the nature of the universe, and the interaction between humans and the environment.

Life Science (Apex)

2 semesters

Middle School Life Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts including the relationship between structure and function, the flow of energy and matter through living systems, heredity, and the diversity of life.

Physical Science (Apex)

2 semesters

Middle School Physical Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts including the interactions of matter; motion and stability; waves and their technological applications; and energy.

Science 6 (Apex)

2 semesters

Middle School Grade 6 Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts such as the flow of energy and matter through both living and nonliving systems, including Earth's systems; Earth's weather and climate; the interaction between humans and the environment; the relationship between structure and function; and growth, development, and reproduction in organisms.

Science 7 (Apex)

2 semesters

Middle School Grade 7 Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts such as the structures and properties of matter; chemical reactions; the flow of energy through systems, including Earth's living and nonliving systems; and the history of Earth.

Science 8 (Apex)

2 semesters

Middle School Grade 8 Science delivers instruction, practice, and review to help students develop scientific literacy, deepen conceptual understanding, and apply scientific practices. Students explore concepts such as waves and electromagnetic radiation, energy and forces on Earth and in space, genetics and natural selection, and engineering design.

SOCIAL STUDIES

The two-semester courses are arranged in themed units, each with three to five lessons. In each unit, activities make complex ideas accessible through focused content, guided analysis, multi-modal representations, and personalized feedback. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments.

Civics (Apex)

2 semesters

Middle School Civics delivers instruction, practice, and review designed to build middle school students' understanding of the political and governmental systems of the United States and the roles played by citizens.

Contemporary World (Apex)

2 semesters

Middle School Contemporary World delivers instruction, practice, and review designed to build middle school students' knowledge of contemporary world geography, cultures, civics, and economics.

U.S. History (Apex)

2 semesters

Middle School U.S. History delivers instruction, practice, and review designed to build middle school students' knowledge of U.S. history, from the peopling of North America through the era of Reconstruction. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content.

World History (Apex)

2 semesters

Middle School World History delivers instruction, practice, and review designed to build middle school students' knowledge of world history, from the Neolithic Revolution through the Middle Ages.

ENGLISH

The two-semester courses are arranged in themed units, each with three to six lessons. Each lesson includes a variety of activities such as direct instruction, application of skills, performance tasks, and formative and summative assessments. Students engage with the subject matter in an interactive, feedback-rich environment as they progress through standards-aligned content and demonstrate their learning through computer- and teacher-scored assignments.

English 6 (Apex)

2 semesters

English 6 delivers instruction, practice, and review designed to build students' communication and reading comprehension skills. Reading comprehension lessons strengthen students' critical analysis skills as they study how nonfiction and literature can be used to share ideas. Writing lessons combine free-response exercises with drafting strategies and exemplars to help students communicate clearly and credibly in narrative, argumentative, and explanatory styles. To develop skills specific to public discourse, speaking and listening lessons guide students as they evaluate clips and readings from speeches and discussions. In language lessons, students build foundational grammar skills they need to articulate their ideas and understand challenging words.

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ELECTIVES

2D Art Studio (Buzz)

1 semester

Do you like to draw, paint, or take pictures? Whatever medium you prefer, this course will teach you the design elements and principles needed to create a work of art and explore your artistic inspirations. You'll also travel back in time to look at art in different cultures and learn about the art of critiquing. Let's turn your creative dreams into reality!

Animation (Buzz)

1 semester

Across the decades, there have been many legendary animated characters, but now is the time for YOU to breathe life into the next great animation! In this course, you will explore the history of animation to understand it's evolution. You'll also learn the essentials of character development, color theory and design, and the principles of animation while applying your unique animation style to your own animated character. All of your hard work will culminate in your artist's portfolio so you can show off your hard work. Let's create a new life!

Career Exploration 1 (Buzz)

1 semester

How do you pick a career path when you're not sure what's even out there? This course allows you to begin exploring options in fields such as teaching, business, government, hospitality, health science, IT, and more! You'll align your interests, wants, and needs to career possibilities, including the required education for each. Let's find a pathway that works for *you*.

Career Exploration 2 (Buzz)

1 semester

Imagine that it's 20 years from now. What career do you see yourself in? What do you imagine that you'll be doing? In this course, you'll explore more careers and what it takes to succeed in different fields. You'll learn more about what steps are needed to prepare for your career and how to compare the pros and cons of different career choices to find one that's best for you.

Coding 1a: Introduction (Buzz)

1 semester

Do you find yourself wondering how your favorite apps, websites, and games were made? Maybe you want to try building your own. Well, now you can! In Middle School Coding 1a, you will get an introduction to the basics of computer science, HTML, CSS, JavaScript, and Python. You'll leave the course with a portfolio of work you can show off.

Coding 1b: Learning Python and JavaScript (Buzz)

1 semester

Let's take the coding skills you learned in the previous course to the next level! You'll expand your knowledge with Advanced Python, HTML, and JavaScript. You'll further build out your portfolio and start thinking about a career in the fast-growing IT field.

Critical Thinking 1a: Introduction (Buzz)

1 semester

Our brains are incredible tools, and they help us observe, analyze, create, and take action every single day. In this course, you are going to learn to unlock one of your brain's most stunning powers: critical thinking! Get ready to go on an adventure and solve mysteries by applying your own critical thinking skills as you make your way through your units. Then, you'll use these specialized skills towards issues in the real-world both inside and outside of the classroom. Tap into your most powerful tool today!

Digital Art and Design (Buzz)

1 semester

The world is filled with so many different forms of art – including digital art. In this course, you'll explore this special genre of art found in everything from advertising to animation to photography and beyond. Additionally, you'll tap into your creative side to create digital art and make it come alive!

Exploring Music (Buzz)

1 semester

What comes to mind when you hear the word 'music'? Do you think about your favorite band or artist? In this course, you'll learn about how we hear music; how music affects our lives; essential elements of music like rhythm, pitch, and harmony; different musical genres; singing and your voice; various instruments; music composition; and the history and culture of music over the years.

Exploring Business (Buzz)

1 semester

Are you interested in business, leading people, or making decisions to help a business be successful? While there are many different career choices in the field of business, in this course, you'll discover options such as management, human resources, business operations, information management, and accounting. Explore the skills you'll need, common tasks, the technology used, and characteristics of various business careers.

Exploring Health Science (Buzz)

1 semester

Where do healthcare workers spend their days? What do they really do? From cruise ships to sports arenas, you can find healthcare workers in many places that you might not expect. Explore this field, including what it would be like to work in a medical lab. Learn what it takes to keep you and your patients safe, and begin to learn about the human body and basic first-aid.

Exploring Information Technology (Buzz)

1 semester

Are you interested in creating a website or app, or managing various technology solutions, but not sure where to start? If so, then it's time to explore the different career options available to you in IT and learn the foundations of IT to get you started. Examine various IT pathways of web and digital communications, information and support services, network systems, and programming and software development. Let's investigate which career pathway is right for you!

Exploring Music (Buzz)

1 semester

What comes to mind when you hear the word 'music'? Do you think about your favorite band or artist? In this course, you'll learn about how we hear music; how music affects our lives; essential elements of music like rhythm, pitch, and harmony; different musical genres; singing and your voice; various instruments; music composition; and the history and culture of music over the years.

Fitness (Buzz)

1 semester

What does being fit mean to you? It's more than just a number on a scale, and this course will help you understand the basics behind what it means to be physically fit. Learn how your body functions; learn the complex science behind exercise; explore what it means to be mindful and what inspires you and determine how you can test your current level of fitness.

Game Design 1a: Introduction

1 semester

We love to play video games, but have you ever wanted to build your own? If you are interested in a career in technology but also want a creative outlet, Game Design might be the field for you. Learn how to build a game from the ground up in this interactive and hands-on course that will teach you all the ins and outs of making your own game.

Game Design 1b: Creating a Game

1 semester

It's time to take your Game Design knowledge up a level! You built your game design skills and Scratch techniques in the first part of this course. By the end, you wrote your game design document. Now you are ready to start developing that game! You'll create details and add component pieces in a game while learning to prototype, troubleshoot, and test.

Health (Buzz)

1 semester

Middle school is a tangle of excitement, changes, and transformations that are sometimes surprising, challenging, and just plain confusing. In this course, you will be given tools and information to help you navigate your teenage world. You will learn about all aspects of health- mental, physical, social, and emotional- and you will learn how to set goals for yourself to improve all facets of your wellbeing. All of these tools can help untangle the sometimes confusing world of middle school and this knowledge can help lead to a healthier and happier you!

Journalism: Tell your Story (Buzz)

1 semester

Are you someone who likes to write to get the story straight? Skilled journalists know how to find key facts and write them up in a way that makes it easy for others to read. In this course, you'll learn how to ask the right questions, how to gather information effectively, organize ideas, format stories, and edit your articles. Get ready to break that news!

Learning in a Digital World: Digital Citizenship (Buzz)

1 semester

We use technology to communicate with friends and family, find never-ending entertainment options and do our schoolwork. Discover what it means to be a responsible digital citizen, expand your digital literacy, and become a successful online student. Consider the best ways to find, create, and share information, learn to

maximize information and communication technologies, and explore digital content creation, from emails and blogs to social media, videos, and podcasts.

Photography 1a: Introduction (Buzz)

1 semester

Photographs are all around us, and each helps to tell a story. Now it's time for you to create your story through photos you learn how to take in this course. Learn the basics of using a camera, lighting, and how to choose great subjects to create magazine-worthy photos and amaze your friends and family with your skills.

Photography 1b: Drawing with Light (Buzz)

1 semester

Do you have vacation photos or pics of your pet that need a little editing? How about getting ready to add that new selfie you took to your social media platform? Taking photos is an art, and editing photos is a skill that many photographers seek to master. Explore how to manipulate angles and lighting, the purpose for different types of photo files, how to use different software to edit photos, and safe places you can store them. You'll be well on your way to being an editing guru when you're done with this course.

Tech Apps Grade 6 (Buzz)

1 semester

When it comes to technology, there is a lot to learn, and sometimes it's hard to get a digital foothold. In this course, you will be introduced to some of the most important technological topics to place you on the path to well-rounded understanding. You will learn about your digital footprint, netiquette, and how to stay safe online. You will improve your typing, file management and organization skills as well as your knowledge of software programs. You will also learn about trends, coding, blogs and websites, photo, and video software, and more! It's time to go digital!



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