Online Resource Bundles

Middle School Curriculum

Spider Learning, Inc.

Bringing equity and opportunity to every student, every day, everywhere.

At Spider Learning, we are passionate in our commitment to putting kids first. Our innovative and continuously improving digital curriculum empowers all students and teachers to make personalized learning decisions.

"One of our core missions at Epic One On One Charter School is to provide quality choices of curriculum for our students. Not every student learns the same way and so we strive to offer options that can meet each individual students needs. Spider Learning and Epic One On One Charter School partnered together this year to bring another quality option to our students. From our initial discussion to full implementation, Spider Learning has been one of the most responsive and easy to work with providers that we deal with. They have worked alongside our team every step of the way in getting Spider Learning off the ground. We are looking forward to a long lasting working relationship with Spider Learning."

J. Scot Trower
Assistant Superintendent
Talent Acquisition and Development
Epic Charter School

"Spider Learning believes in trusted relationships and building strong partnerships. They highly value the input of those with whom they work, and are flexible in developing solutions that work in an industry known for being ever-changing."

Anthony Kim
CEO
Education Elements

Middle School Curriculum Overview

Thank you for taking the time to learn about our Middle School Curriculum. The Online Resource Bundles developed by Spider Learning are designed for the blended learning classroom.

All decisions related to the instructional design of our curriculum, from the actual lesson flow experienced by students to the consistent unit structure, are driven by relevant educational research and proven practices.

We have integrated technological advancements with our experiences in digital curriculum design to ensure an appropriate delivery strategy for today's learner.

Our Model

Formative, Flexible, Functional

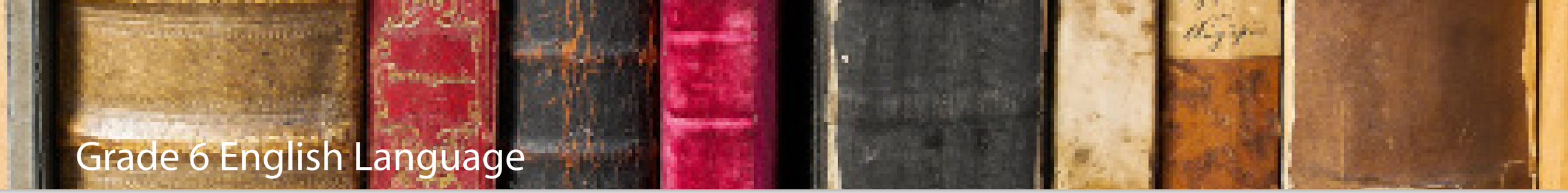
Our Middle School Curriculum has been developed to engage today's learner and provide the real-time data needed for teachers to personalize learning. Able to be delivered as online resources or as pre-packaged WebCourses, each lesson is designed with 10 individual learning objects that generate as many as 18 unique data points.

Our content is evolving. Through the use of a proprietary Continuous Curriculum Improvement Cycle (CCIC), every learning object is assessed for efficacy and revised as needed.

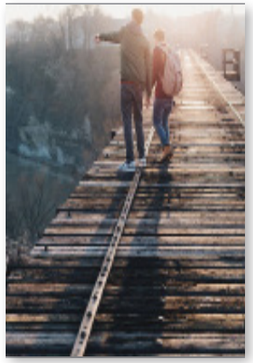
Efficacy Data **Content Revisions**

Curriculum Differentiators

- Formative Skills Assessments are included at the beginning and end of each lesson to track both student growth and lesson efficacy.
- Traditional static examples have been replaced by embedded technology-enhanced items. This ensures continuous student engagement and introduces guided practice to the online learning experience.
- Interactive Instructional Media encourages a personalized path through the lesson video based upon each student's individual responses.
- Metacognitive prompts nested within each lesson's introduction ensure student agency when evaluating their individual learning styles, planning their learning approach, and taking ownership of the manner in which they will work to master the lesson content.
- Student performance data is collected at 18 unique points in every lesson and may be used by teachers to differentiate instruction.
- Skill-based supplemental resource bundles tied to each objective serve to enrich or support the lesson content for teachers and students.
- Evaluation of student progress allows us to identify weaknesses within activities, analyze their impact on student mastery, and provides us with the ability to replace those activities with more effective ones to ensure the next set of students moving through that lesson are having a more meaningful and effective experience with the content.



Grade 6 English Language



Quarter 1

Semester A

Students will learn to identify and analyze textual structure, context clues, central idea, author's purpose, points of view, and other literary elements of nonfiction. They will begin by delving into the process of breaking down nonfiction personal narratives to identify central idea, character, and essential aspects of plot. After reading to analyze and understand the genre, students will demonstrate their understanding by crafting their own personal narratives. They will move on to a focused reading unit of objective nonfiction texts to enhance their overall understanding of the genre.

Quarter 2

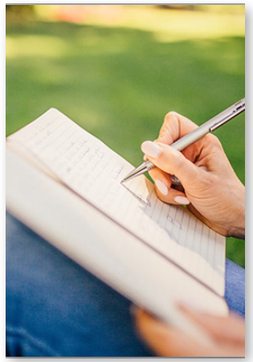
Semester A

Students will continue to study nonfiction through factual reports and persuasive texts, and expand their knowledge of characteristics unique to nonfiction by examining textual structure, comparing and contrasting author's purposes, and evaluating information in texts. Students will practice the five-step writing process focusing on awareness of authentic and routine writing including prewriting, drafting, revision, editing, and finalization. Students will develop their abilities to state and support a claim, research to find credible sources, and craft their writing for intended audiences.

Quarter 3

Semester B

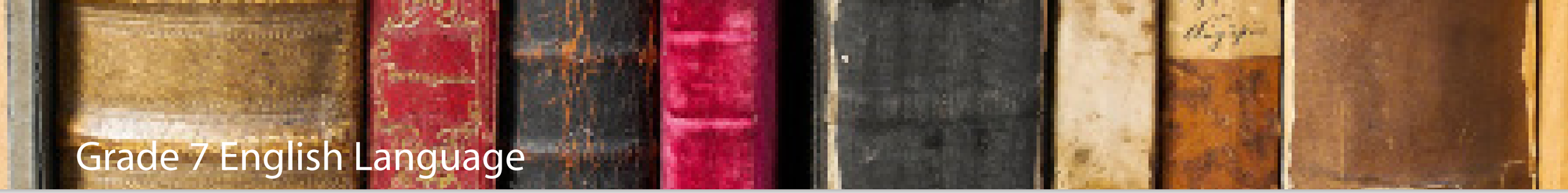
Students will read fiction and poetry to identify and analyze scene, character development, central idea, author's purpose, textual structure, and other literary elements. They will break down fiction to identify central idea, character, and essential aspects of plot. After reading to analyze and understand the genre, students will demonstrate their understanding by crafting their own fiction narratives. Then they will move on to a reading unit of poetry texts to support their understanding of figurative language, purpose, central ideas, tone, and organizational structure.



Quarter 4

Semester B

Students will apply their understanding of poetry to create their own work using the five-step writing process of prewriting, drafting, revision, editing, and finalization. They will develop their ability to write using figurative language such as hyperbole, metaphor, simile, and personification. The quarter culminates with two major projects: an academic essay and a digital presentation. In the essay, students will choose a text to analyze using the skills learned in previous units. The companion presentation will be a demonstration of their previously written work.



Grade 7 English Language

Quarter 1

Semester A

Students will deconstruct nonfiction to understand audience, purpose, structure, central ideas, and literary techniques. They will analyze personal narratives, and learn how to select memoir topics, craft narratives for an intended audience, introduce characters, and develop central ideas. Students will learn the five-step process of prewriting, drafting, revision, editing, and finalizing their own personal narratives. The quarter finishes with a focused reading on nonfiction to identify explicit and implicit textual evidence, and compare and contrast the presentation of similar information.

Quarter 2

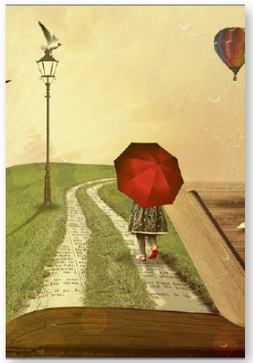
Semester A

Students will continue to read and write to analyze, understand, and create nonfiction using biography and persuasive texts. They will deconstruct textual structure, compare and contrast author's purposes, and evaluate information in text to enhance their understanding of the techniques unique to nonfiction. Students will continue to develop awareness of authentic and routine writing through the five-step writing process. They will expand their abilities to state and support a claim, research to find credible sources, collaboratively discuss, and revise their writing for intended audiences.

Quarter 3

Semester B

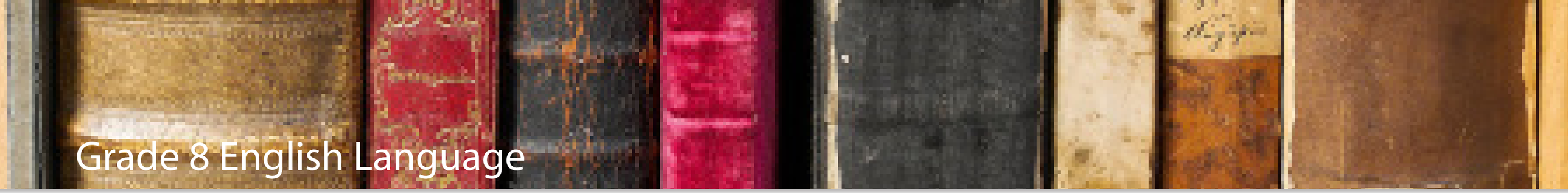
Students will read and study fiction and poetry to understand purpose, structure, central ideas, and figurative language. By reading and deconstructing fiction, they will learn the importance of intentional and masterful writing. They will apply that understanding to crafting narratives for an intended audience by introducing characters and developing plot using the five-step writing process. This quarter finishes with a focused reading on poetry to identify literary techniques, textual structure and use of figurative language.



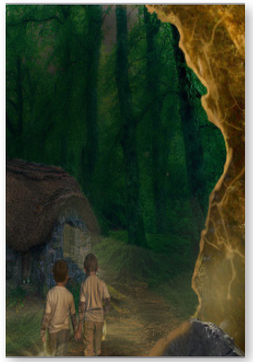
Quarter 4

Semester B

Students will transfer their knowledge of figurative language and poetic technique to writing their own poetry through the five step writing process. They will synthesize their reading and writing skills to explain and analyze literature in an academic essay. They will compare and contrast genres, write with purpose and formal tone, and support their interpretation with textual evidence. Finally, students present their various created works to demonstrate use of precise language conventions of speaking, and their accumulated knowledge from throughout the course.



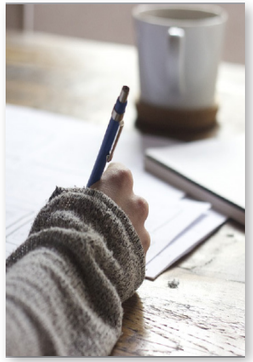
Grade 8 English Language



Quarter 1

Semester A

Students will continue to develop their grasp of active reading and authentic writing using focused literary analysis and creation of nonfiction texts. Students will read a historical memoir to comprehend and deconstruct elements such as point of view, central ideas, textual evidence, and author's purpose. They will use the five-step writing process to create their own personal memoirs for an intended audience. The quarter concludes with a concentrated reading of historical nonfiction to identify explicit and implicit textual evidence, evaluate claims, and infer and generalize based on text.



Quarter 2

Semester A

Students will continue to read and write to analyze, understand, and create nonfiction through histories, opinion articles, and persuasive texts. They will examine and evaluate textual structure, author's purposes and points of view, claims, and supporting evidence to enrich their understanding of literary devices unique to nonfiction. Using the five-step writing process, awareness and skills in authentic and routine writing, students will be able to find and cite credible sources, state and develop opinions, collaborate, and craft their writing for specific audiences and purposes.

Quarter 3

Semester B

Students will analyze novels and epic poetry to understand purpose, structure, central ideas, and figurative language. They will learn the importance of literary technique in crafting plot and character development. To apply this understanding, students will start to write their own novels through the five-step writing process. The quarter finishes with a focused reading on epic poetry to identify differences in textual structure, use of figurative language, and development of central ideas in extended texts.

Quarter 4

Semester B

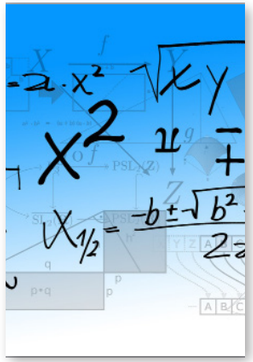
Students will use their understanding of narrative and poetry writing to transform narratives into poetry through the five step writing process. They will synthesize their analytical and literary skills to write a thesis paper that explains and supports their interpretation of a text. Students will cite textual evidence, write with purpose and formal tone, and write to support a thesis. The course concludes with a demonstration of skills through the production of multi-purpose authentic writing for the web including blogs, reports, reviews, newsletters, personal profiles, and articles.

Grade 6 Math

Quarter 1

Semester A

In this course, students will learn to compute fluently with all forms of numbers including decimals, fractions, rational numbers, and absolute values. Students will apply their skills for computing with multi-digit numbers to decimals and rational numbers. Students will do conversions between fractions and decimals as well as mixed numbers and improper fractions. This quarter ends with students comparing different types of rational numbers, exploring positive and negative numbers, using a number line to interpret distances, and applying absolute value to real world situations.



Quarter 2

Semester A

Students will learn about ratios and how to apply this idea to unit rates and percentages. A foundation will be built on generating equivalent expressions that involve exponents and other algebraic properties such as the commutative, associative, and distributive properties. Students will build algebraic expressions when given a verbal model and will also evaluate algebraic expressions when given values. An important part of the first semester is solving equations. Students will solve one and two-step equations, verify solutions to equations, and apply these skills in real world applications.

Quarter 3

Semester B

The second semester of Math 6 starts out with students learning to represent dependent and independent variables using equations, tables, and graphs. Students will learn to display numerical data using dot plots, histograms, line graphs, and box-and-whisker plots. Students will then relate these displays to finding the center and variability, or spread, of data. The last unit in this quarter investigates quadrilaterals and polygons. Students will learn to use a coordinate plane to find missing pieces of shapes. Finally, students will calculate volume and surface area of prisms.

Quarter 4

Semester B

The initial focus of this quarter is bivariate data, or data for two variables. Students will display and interpret bivariate data from a scatter plot. Then, students will analyze and apply the mean, median, and mode to application problems. The content then shifts to inequalities and plotted points. Students will solve inequalities and sketch solutions on a number line. Students will then use the coordinate plane for real world problems. Finally, students will determine the area of various shapes, and learn to investigate quadrilaterals by plotting them on a coordinate plane.

Spider Learning, Inc. | 2652 Hidden Valley Dr., Suite 303, Pittsburgh, PA 15241 | sales@spiderlearning.com | 412.444.8346

Grade 7 Math

Quarter 1

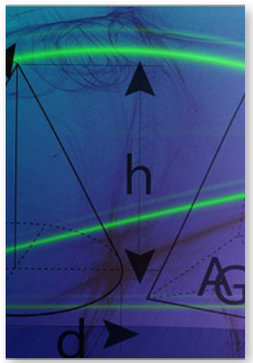
Semester A

This course extends student understanding of rational numbers and applies these understandings to various forms of numbers such as fractions and decimals. Emphasis is placed on using a number line to represent rational numbers and operations with rational numbers. Students will be able to calculate in any form and convert between forms when necessary. Students will then study algebraic expressions, including the use of order of operations and factoring. The first quarter ends with solving one, two and multi-step equations in real world problems.

Quarter 2

Semester A

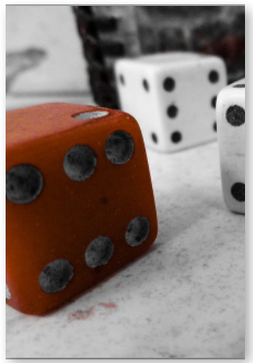
The second quarter of Math 7 will cover solving all types of inequalities and direct variation; students will also learn how to represent these situations graphically. Students will construct linear inequalities to solve real world applications. Students will then study proportional relationships and unit rates before studying geometry concepts. Students will identify and solve for angle measurements, including complementary and supplementary, and those angles formed by parallel lines and a transversal.



Quarter 3

Semester B

Students will begin Semester B by calculating the area of squares, rectangles, parallelograms and different types of triangles. Students will then learn to work with circles when finding area and circumference. The next unit continues the study of geometry, prompting students to learn how to calculate surface and area and apply it to real world problems. Students will also study different types of sampling, how to make predictions about populations, and how to calculate probabilities of compound events and independent events.



Quarter 4

Semester B

This quarter focuses on inferring with stem-and-leaf plots, histograms and box-and-whisker plots. Students will use these representations to calculate mean, median, mode, and range. Students will also learn about the spread of data using a histogram. Frequency tallies will help students learn to draw conclusions about data. Students will learn more about making inferences in reference to random sampling within a population. Students will continue through the course by studying probability, making predictions about the likelihood of outcomes, and applying their learning to real world situations.

Grade 8 Math

Quarter 1

Semester A

Math 8 begins by extending number concepts from rational numbers to irrational numbers and from exponents to radicals. Students will perform operations with fractions, decimals, and percentages. Basic evaluations with exponents will be deepened to include properties of exponents and scientific notation. Students will solve real world problems with numbers in scientific notation. Students will learn that all numbers can be divided into the rational or irrational number sets. Students will describe and approximate irrational numbers before comparing and ordering rational and irrational numbers.

Quarter 2

Semester A

In this quarter, students will learn about radical expressions and how to simplify and perform operations with numbers in this form. Students will solve complex linear equations that have rational coefficients and also equations that involve square and cube roots. Proportional and linear relationships will be analyzed, such as unit rates and linear equations. Students will solve linear equations with many steps and even those with rational values. Students will then learn about the different forms of linear equations and how to use these to represent a linear equation graphically.

Quarter 3

Semester B

The second semester of Math 8 continues the study of linear equations. Students will solve systems of linear equations using different methods and then define and utilize functions to solve real world applications. Students will then spend time learning about scatter plots and how to interpret bivariate data, or data in two variables. Students will then learn to explain and use the Pythagorean theorem to confirm triangle types and to solve real world applications. This quarter ends with a study of the volume of spheres, cylinders, and cones.

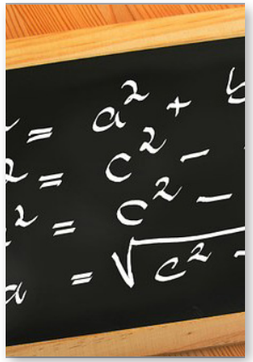
Quarter 4

Semester B

Students will learn to explain the properties of translations, reflections and rotations. Students will also use transformations to prove that two figures are congruent or similar. The next unit focuses solely on applications. Students will apply many of the skills they have learned through the year including solving equations, calculating volume, and application to real world situations. Finally, students will get prepared for the next level of mathematics: Algebra. Students will be introduced to writing expressions, solving linear inequalities in context, and evaluating functions.

Spider Learning, Inc. | 2652 Hidden Valley Dr., Suite 303, Pittsburgh, PA 15241 | sales@spiderlearning.com | 412.444.8346

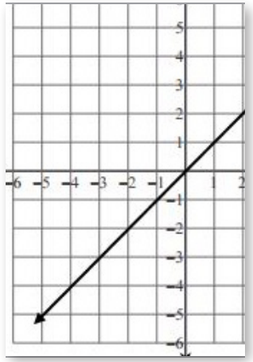
Algebra



Quarter 1

Semester A

In this quarter, students will work with real numbers, equations, inequalities, and algebraic expressions. Students will first learn about real numbers including square roots, cube roots, and simplest radical form, and how to deconstruct an algebraic expression into its parts. Students will then study and relate linear equations and inequalities to those including absolute value. Students will write equations and inequalities when given a verbal model. Students will learn several methods for representing linear equations and inequalities on a coordinate plane or number line.



Quarter 2

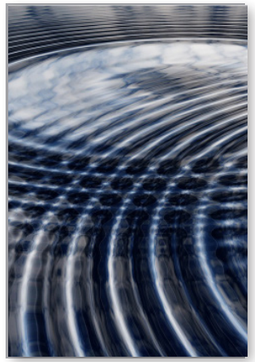
Semester A

A key part of Algebra 1 is building a foundation on functions. Students will define and graph functions written in different forms. Students will relate linear functions to scatter plots and will write equations of lines. Students will study systems of equations to end the analysis of linear equations. They will determine the best method to use when solving a system of equations and how a system can have one solution, no solution, or infinite solutions. Finally, students will solve real problems with systems of equations and work with exponential expressions like scientific notation.

Quarter 3

Semester B

Students will learn to identify polynomials and to perform operations on polynomials. Students will also learn to factor polynomials and then use those skills when solving quadratic equations. In addition, students will use the discriminant to determine the type of solutions for quadratic equations. Students will compare linear, quadratic, and exponential models for real world problems. Lastly, students will graph square and cubed root functions, perform operations with radical expressions, and know how the Pythagorean theorem relates to the distance and midpoint of two points.

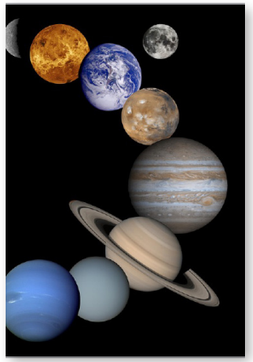


Quarter 4

Semester B

The last quarter of Algebra 1 begins with a study of probability, samples, and measures of center. Students will learn to construct and interpret a stem-and-leaf plot, a histogram, and a box-and-whisker plot. Students will then learn to solve and graph rational equations as well as how to simplify them with multiplication and division. Algebra 1 ends with a more in-depth study of probability. Students will calculate simple probabilities experimentally and theoretically, and learn to calculate the probability of dependent and independent events.

Grade 6 Science



Quarter 1

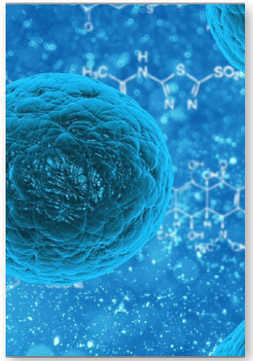
Semester A

In this course, students will be introduced to the foundations of scientific inquiry. Learners will receive a strong introduction to astronomy and the structures of the planets in our Solar System. Students will inquire and learn about the planets and other aspects of the universe. The first part of the year is a study of methods for asking and answering questions. Students will explore features of the Earth and cycles that exist both within and on the Earth to understand how physical science relates to the ongoing processes in the world.

Quarter 2

Semester A

In this course, students will learn about chemistry and its impact on the Earth's cycles. Students will integrate their understanding of mathematics with their knowledge of chemical equations to perform basic chemical reactions. Students will learn about physics, force, and motion. Students will study specific cycles and laws that explain how physical science impacts the motion in our world. Learners will study heat and energy as it relates to physics and the Earth to better understand the world around them.



Quarter 3

Semester B

In this course, students will be introduced to the foundations of life and identify cells as the most basic unit of life. Students will explore and categorize organisms as they survey life and the classification systems used by scientists. Learners in this course will study the strategies, traits, and behaviors of various organisms to survive and adapt. This second part of the year is a study of the classification of organisms that make up life on planet Earth. Students will analyze the methods used to classify and will categorize organisms by their features.

Quarter 4

Semester B

In this course, students will learn about technology and society, and the important careers that rely on science. Students will also discover STEM systems and models and how they apply to production and design. A developed understanding of science and technology applications will be acquired, and students will learn about the importance of these fields to society and further development of products and manufacturing. Rounding out the course, students will see the interaction between multiple fields of science and STEM career fields.

Grade 7 Science

Quarter 1

Semester A

In this course, students will learn more about the scientific method and refine their ability to use it. Students will also be introduced to gravity as it applies to features of the Solar System and explore more features of the universe. Learners will explore the cycles and patterns that exist on Earth and analyze their implications for change on the surface and at other levels of the Earth. Students will examine the cycles that take place above Earth's atmosphere in greater depth and explain their significance to life on Earth.

Quarter 2

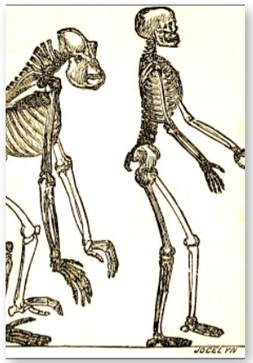
Semester A

In this course, students will explore the elements of the periodic table and the reactions at work on Earth. Students will learn to write and use chemical equations to represent common reactions. Learners in this course will study physics as it applies to forces and energy in the world. Students will also engage in a practical study of physics to look at how physics is at work in our everyday lives and how it can be used to work for us.

Quarter 3

Semester B

In this course, students will learn about cell theory and the inner structure and organization of both plant and animal cells. They will study the life processes and cycles on Earth and will delve into genetics and the reproduction of DNA. Students will also examine the passing of traits from parents to offspring, learning about the history of genetics and how genetics influences a population. In addition, students will see how the traits of offspring can be predicted.



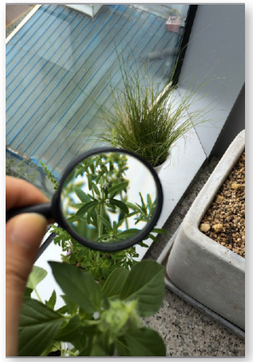
Quarter 4

Semester B

In this course, students will explore biological evolution and gain an understanding of the changes that take place across populations over time. Students will also be able to explain examples of what evolution is and isn't, and be able to discuss the history of evolutionary discovery. They will study science and technology and learn how it relates to process and design. Students will finish the course by studying applications of science and technology and will further their understanding of the contributions and practical uses of STEM applications.

Spider Learning, Inc. | 2652 Hidden Valley Dr., Suite 303, Pittsburgh, PA 15241 | sales@spiderlearning.com | 412.444.8346

Grade 8 Science



Quarter 1

Semester A

In this course, students will analyze scientific inquiry in greater depth. Students will refine their ability to ask and design valid, scientific questions and use them for learning about their environment. Learners will engage in the process of scientific design to build and evaluate flaws in their own experiments. Students will engage and evaluate their study of measurement and analysis and learn about the multiple scientific applications of these tools.

Quarter 2

Semester A

In this course, students will begin to learn about biology and the study of genetics. They will examine the occurrence of biodiversity and explore botany as well as zoology. Students will learn about the classification of organisms, as well as the physical sciences and Earth and Space sciences. They will have the opportunity to explore features of the universe, both inside and outside of our own Solar System, including exoplanets and natural satellites. Learners will analyze beginnings of physics and astronomy.

Quarter 3

Semester B

In this course, students study environmental science and the careers of scientists who specialize in this field. Students will also study and model systems and processes, and how they represent a multitude of occurrences, enhanced by 3D representations. This course will cover closed and open systems, as well as the water and rock cycles. Closing out the quarter, students will study applications of science, exploring how they can be applied to other fields and how STEM fields are coming to the forefront of the workforce.

Quarter 4

Semester B

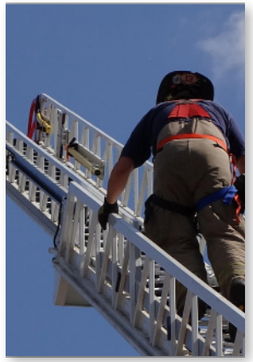
In this course, students will explore the skill of focused learning with regard to technology and society's needs. They will learn how science is a field that expands to meet the needs of society by building and forming technologies. Students will learn with detail about the growing fields of STEM skills and abilities that they serve. The course concludes with an exploration of the growing careers available to students in STEM fields and an analysis of what makes a STEM field a STEM field.

Grade 6 Social Studies

Quarter 1

Semester A

During this quarter, students will be introduced to the foundations of the United States government, including important documents such as the Declaration of Independence, Constitution, and the Bill of Rights. Students will also examine the principles that guided the founders as they created each document. Learners will transition to the functions of our government including the roles and responsibilities of each branch of government and the concepts of Separation of Powers and Checks and Balances.



Quarter 2

Semester A

Students will examine the different relationships that impact governments. Beginning with the rights and responsibilities of citizens, student will look at ways to get involved in government and in the community including volunteering, public service, and running for political office. The focus then shifts to the international stage where students will learn how the United States and other governments interact on a global scale. The quarter concludes with the government's role in economics, focusing on use of money, taxes, and providing public goods and services to citizens.

Quarter 3

Semester B

During this quarter, students will begin to examine the basics of economics. They will start by exploring the concept of producers and consumers and then expand on the roles each play in the market. Different markets, such as free market and command markets are defined, as well as examples of countries that use each market type. Students will also examine scarcity and how it applies to the availability of resources, needs, and wants of consumers and the overall economy.

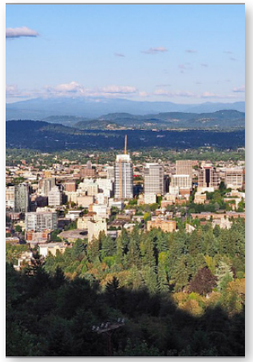
Quarter 4

Semester B

In this quarter, students will learn about differences in economic theories with a focus on capitalism and socialism. Students will also examine how profits can be motivators in the economy. The focus of the course then shifts to entrepreneurship and the impact of commerce, including a study of important contributors to society. Finally, students will be introduced to the role of economics and interdependence within the United States, as well as on a global scale.

Spider Learning, Inc. | 2652 Hidden Valley Dr., Suite 303, Pittsburgh, PA 15241 | sales@spiderlearning.com | 412.444.8346

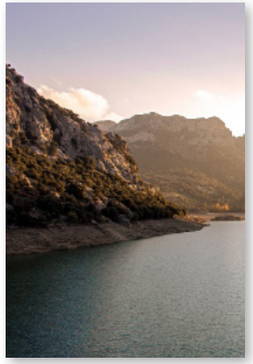
Grade 7 Social Studies



Quarter 1

Semester A

Students will be introduced to the world around them through the study of geography. By examining the concept of geography including the use of geographic tools, students will assess specific examples of the physical processes that shape our world. They will also study the physical geography of specific places including the geography of the six inhabited continents as well as some specific regions in North America. The quarter concludes with the study of human geography, or the impact of humans on the physical systems of our world, including the effects of deforestation and urban development.



Quarter 2

Semester A

This course shifts its focus from global geography to United States geography and history. Students will study different regions, cultures, political, and economic activities within the country. Students will then study the lives of important people who played critical roles in the development of the nation and the impact of their individual contributions. From there, the same concept is applied to influential groups that have shaped our society into what it is today.

Quarter 3

Semester B

The study of regional history and geography continues during this quarter. Students will examine important documents in history such as the Constitution. The journey continues into historical places and artifacts such as the Mason Dixon Line and Valley Forge. The quarter concludes with a study of the political contributions of important figures in our history.

Quarter 4

Semester B

Students will continue with their study of United States history by taking a look at the growth of commerce and industry from the founding of the country through the present day. The study of the conflict and cooperation of industry and society makes up the middle portion of this quarter. The course then concludes with a look at contemporary issues that are affecting the country today.

Grade 8 Social Studies

Quarter 1

Semester A

Beginning with the peopling of the Americas, students will explore the theory of the migration of people from Asia to North America during the last Ice Age, followed by a look at the settlements and cultures of Native Americans from different regions across North America. European explorers and their interactions with Native Americans are introduced. The quarter concludes with the establishment and growth of British colonies including Jamestown and the Plymouth Colony, the geography of the New England, Middle and Southern Colonies, the French and Indian War, and the First Continental Congress.

Quarter 2

Semester A

During this quarter, students will be introduced to the concepts and ideas that drove colonists to the point of revolution against the British Empire. Famous works such as Common Sense and the Declaration of Independence will be examined as well as strategic battles of the American Revolution. Students will then explore America's first attempt at government, which includes the Articles of Confederation, the development of the United States Constitution, and the Bill of Rights. A study of the conflict crises that developed that threatened the success of the young nation will follow.

Quarter 3

Semester B

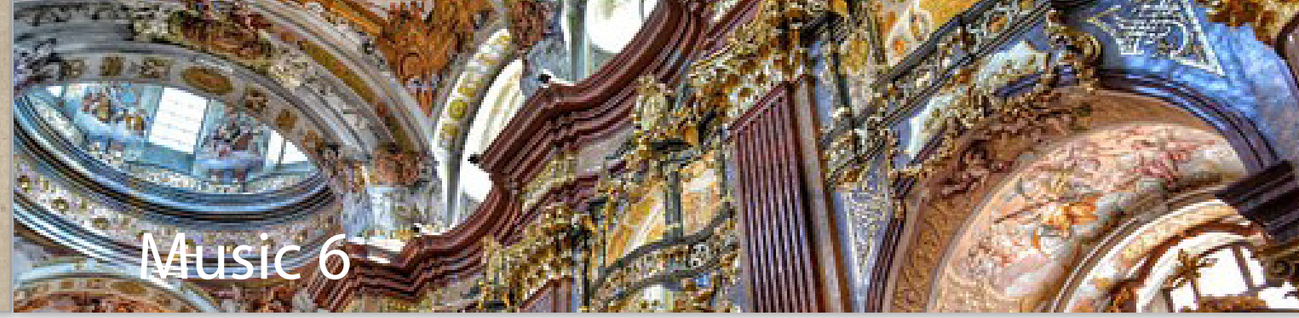
During this quarter, students will explore the political, economic, and regional growth of the United States in the years following the American Revolution. Beginning with the Louisiana Purchase, students will study the westward territorial expansion of the nation and the conflicts that came with it. The students will also examine the institution of slavery and how sectionalism began to divide the nation in the years leading up to the Civil War.

Quarter 4

Semester B

This course concludes with a journey through the Civil War and Reconstruction. Much of this quarter will be focused on different points of view that lead to the outbreak of the Civil War, specific battles, and the roles f the armies and civilians during the war. Students will then focus on the physical and social impact of Reconstruction with an emphasis on the African-American experience.

Art 6



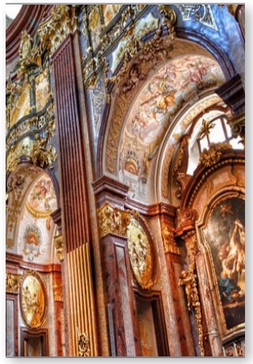
Music 6

Quarter 1

Students will begin their art history exploration in the Prehistoric Era by learning about, evaluating, and replicating Stone Age artwork. They will be introduced to the commonly used tools and materials of the time, and create original works of art with modern versions of those materials. Students will focus on the artwork found within the Lascaux, Niaux, and Cosquer Caves, which are located in various regions of France. Students will be guided through the process of analysis in order to compare and contrast the works of each cave to their own art.

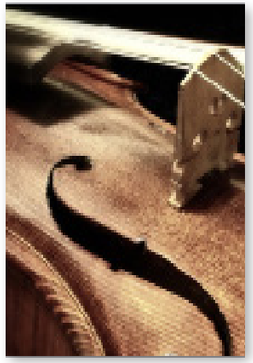
Quarter 2

Students will transition into the Renaissance Era to understand the impact of Venetian and Northern Renaissance artwork on the world. They will analyze and then create original works of art based on the artwork of Jan van Eyck, Raffaello Sanzio, and Gentile Bellini, all of whom were notable artists from this period. By the end of this course, students will be able to understand how artists in two vastly different eras were able to inspire future artists in similar manners.



Quarter 1

Students will begin learning about music history by discussing the Baroque, Classical, and Romantic musical periods. These periods saw the most development and growth in music. Students will also learn about key composers such as Handel, Haydn, and Schubert, and be able to identify and analyze their works. In order to create basic compositions, students will be guided through understanding, creating, and applying music theory in various forms, including instrumental and vocal application.



Quarter 2

During the second quarter, students will continue learning the basics of music theory knowledge and compositional concepts, including instrumental and vocal application. They will use these skills to understand how music is created and performed, and will have the opportunity to create and perform their own short exercises. These are the foundational skills that students will need as they begin analyzing and evaluating musical performances.

Art 7

Music 7

Quarter 1

Continuing their art history exploration, students will analyze the effects of Byzantine Art and Architecture. Students will understand the role that religion played in the creation of buildings and artwork by focusing on the artwork within Hagia Sophia and the Great Palace of Constantinople, and discuss the modifications to the Basilica of Sant'Apollinare Nuovo. Students will analyze the symbolism of the artwork within these buildings while creating original works of their own.

Quarter 2

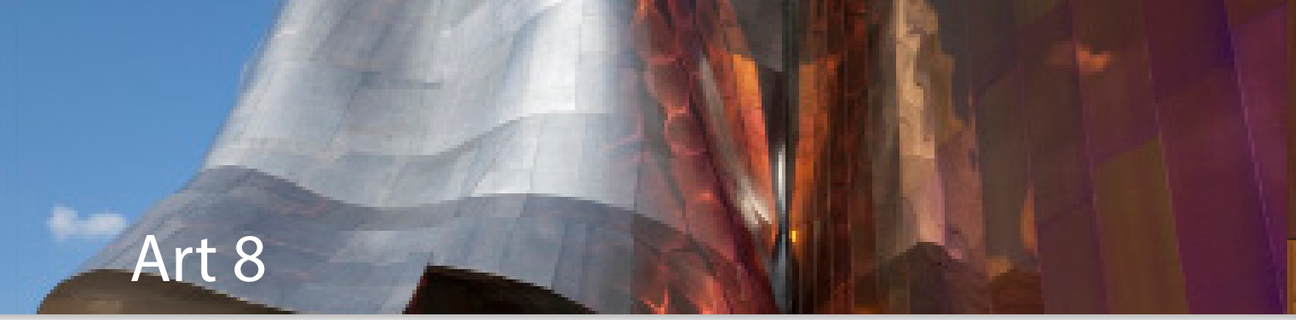
During the second quarter, students will focus on learning about, evaluating, and creating Impressionistic artwork. They will be introduced to the commonly used tools and materials of the time, and create original works of art with modern versions of those materials. The students will focus on the artwork of Claude Monet, Edgar Degas, and Pierre-Auguste Renoir, all of whom were notable artists from this period. The art of the Impressionistic Era will provide a striking contrast in the creation of the human form from the Byzantine Era.

Quarter 1

Overlapping with Music 6, students will focus on learning about the Classical, Romantic, and 20th Century musical periods. They will learn about key composers such as Schubert and Chopin, and discover the impact that Classical and Romantic composers had on 20th century composers such as Stravinsky. Students will continue developing their theory skills and begin developing more advanced vocal and instrumental techniques.

Quarter 2

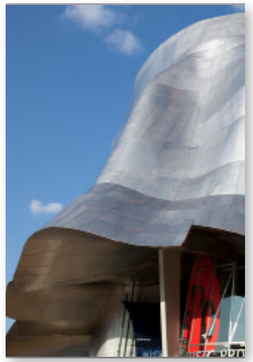
As students continue developing their theory skills, lessons will be reinforced with instrumental and vocal performance pieces. This enables students to learn a concept in three different ways. Students will begin to write their own compositions, and continue using analysis and critique guidelines to provide a deeper assessment, evaluation, and comparison of various music genres from all over the world.



Art 8

Quarter 1

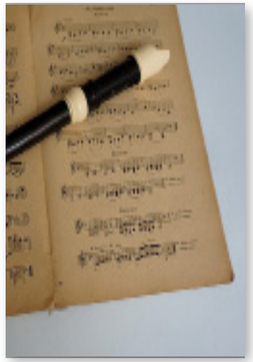
Students will learn how Ancient Greek and Roman art impacted artists during the Neoclassical period as they study the artwork of Jean-Auguste-Dominique Ingres, Angelica Kauffman, and Jacques-Louis David. Students will understand the common themes represented within their artwork and replicate the ways in which artists told stories and exaggerated history through those themes as they create their own original works of art.



Quarter 2

Students will complete their exploration of art history by focusing on Deconstructivist design, the most modern form of art discussed in the course. Students will focus on the architectural designs of Zaha Hadid, Frank Gehry, and Daniel Libeskind, all of whom have designed existing buildings that students may recognize. Students will understand how these architects worked to suspend traditional concepts of form and balance, and use them to design works of their own.

Music 8



Quarter 1

Students will focus on learning about the Medieval musical period in order to see the impact that it had on the Renaissance and Classical musical periods. They will review the lives and works of key composers of these periods, such as Wolfram von Eschenbach, di Lasso, and Telemann, and be able to identify and analyze their work. Students will also continue working to understand, create, and apply music theory in various forms, including instrumental and vocal application, in order to create basic compositions.

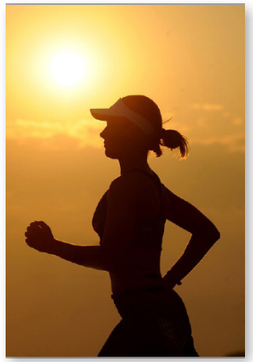
Quarter 2

Students will focus on reinforcing their music theory knowledge and compositional concepts using instrumental and vocal application. They will work to refine their performance skills through instrumental and vocal exercises, and will be able to create thorough critiques that move beyond their analysis and evaluation guidelines, in order to show their thoughtful approach to evaluating works of art.

Fitness

Quarter 1

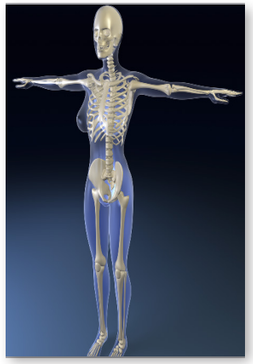
This course introduces students to nutrition and how the body can be affected by nutritional choices. Students will learn to read nutrition labels and analyze how healthy choices can improve personal health goals. Students will also discuss the importance of cardiovascular endurance as well as muscular strength and endurance when living a healthy lifestyle. Students will be able to describe the differences between these types of endurance, and ways to enhance their fitness levels.



Quarter 2

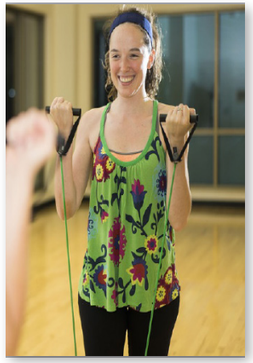
Students will continue to develop their understanding of cardiovascular endurance along with muscular strength and endurance by examining various types of activities. Students will explore various individual fitness opportunities such as running, yoga, swimming, and aerobics, along with group physical activities and sports. Students will use their understanding of fitness to create a personal fitness plan that covers cardiovascular workouts as well as muscular workouts to achieve their fitness goals.

Health



Quarter 1

Students will begin the course by breaking down their understanding of the body into each of the major body systems. Students will analyze how each body system works together and how the body changes over time. Students will discuss how nutrition and their personal choices affect the body and the body systems. Students will discuss the importance of maintaining healthy nutrition as they grow.



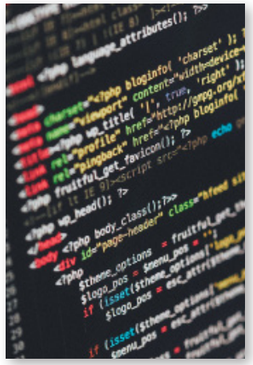
Quarter 2

Students will examine exercise and its impact on overall health by creating their own personal fitness plan. Along with exercise, students will also analyze their lifestyles to see where they engage in healthy habits. They will be able to discuss how media and society impact health and healthy images. The course will culminate in the discussion of safety and injury prevention by engaging students in learning about conflict resolution, communication, first aid, and emergencies.

Coding

Quarter 1

This course introduces students to online coding. Using the online educational coding platform, Scratch, students will learn to create animations, stories, and interactive games using simple commands available in the Scratch program. The course begins with an introduction to the features on Scratch, which will help students gain a basic understanding of how to create various projects using specific code language. Students will then move on to creating interactive art and animations. Students will develop their animations by adding music and making their characters move around the screen.



Quarter 2

Using the tools and techniques the students have learned, they will continue to work with and develop their characters through coding in Scratch. Students will learn to add further interactivity to their characters to create a game and a multi-page story. The course wraps up with a collaborative project where students work together to create an educational game with the features and skills they have learned throughout the course.

Mythology

Quarter 1

This course introduces students to the monomyth. The course begins by examining the definitions and common uses of myth in cultures across the world. Students will analyze how myths affected various cultures as they changed from explaining natural events to teaching or explaining significant cultural values and events. Moving on to examine the myth more closely, the students will learn how each myth contains a formula of events and characters. Joseph Campbell's monomyth and each aspect of The Hero's Journey will be discussed in detail.

Quarter 2

Using their knowledge of the monomyth and The Hero's Journey, students will analyze Egyptian, Greek, and Roman mythology to discover the various impacts that myths had on these cultures. The course will culminate with an examination of modern mythology, focusing on the American myths such as Paul Bunyan and Pecos Bill, and a final analysis of Harry Potter and the Sorcerer's Stone to visualize how the monomyth still impacts contemporary fiction.

Microsoft Office / Google Apps

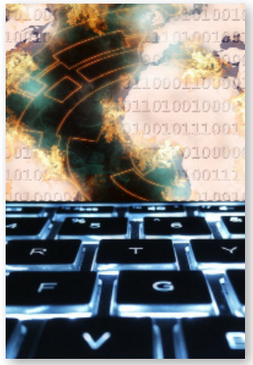
Quarter 1

This course is designed to present students with a basic knowledge of the many features in Microsoft Word, Excel, and PowerPoint, as well as Google Docs, Sheets, and Presentations. Each unit begins with an introduction to the various features in each program and how to access them. Students will apply their knowledge and use the features they have learned to create and modify a project.

Quarter 2

Using the skills they have learned in the Office programs, students will translate these skills to the Google Docs environment. Using Google Documents, Google Sheets, and Google Presentations, students will work collaboratively with their peers on a project by providing feedback and discussion during the project's various stages. Each of the six units focuses on one of the programs and culminates with a final project.

Internet Resources & Safety



Quarter 1

This one quarter course introduces students to the vast array of information available on the Internet. Students will first learn how to navigate safely when using the Internet and online resources. Next, students will focus on the etiquette and responsibilities of being an online contributor and creator. Finally, the course will cover searching for credible and reliable information on the web. This course is recommended for all students who will be working in a digital environment.

S.P.I.D.E.R.S. Program

Our comprehensive K-12 Student Safety program strives to help students and teachers navigate through crucial skills necessary to instill in them a sense of pride, confidence, and safety. The lessons are designed to educate students about their feelings regarding self image, peer pressure, decision-making, and relationships, and help school districts to provide students with age-appropriate sexual assault and abuse education in a caring and conscientious manner.

Spider Learning, Inc.

2652 Hidden Valley Dr., Suite 303

Pittsburgh, PA 15241

www.spiderlearning.com