

# Rockets Online Campus



Where Every Student Can Learn,  
Grow, and Succeed

2022-2023

Course Descriptions

## Rockets Online Campus Contact Information:



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The Rockets Online Campus (ROC) is an exciting cyber school opportunity for students in grades K4 through 12<sup>th</sup> grade. The ROC's main goal is to provide students with choices for their educational path. Our dedicated and highly qualified faculty, staff, and administration will work endlessly to support each and every student and their family. For our ROC students, we have also created a physical space called the "Launch Pad". Dedicated faculty and staff are available to focus on and support all online ROC students. This is in addition to the support that students receive from our ROC teachers. All ROC students will be provided with high quality and locally created curriculum. This curriculum has been implemented in all subject areas to provide a variety of superior offerings to our students.

With the unique structure of the Rockets Online Campus, we can partner with families and students to achieve success. The program is built to allow for individual differences and circumstances. Communication between students, families, teachers, and the Rockets Online Campus faculty and staff is the key to student progress, achievement, and overall student success.

The Rockets Online Campus goal is to simply support and serve, which in turn will allow for greater achievement by each and every student as they learn, grow, and succeed.

Sincerely,

*Michael T. McGaughey, Sr.*

Assistant Superintendent and ROC Administrator

## 2022-2023 Rocket Online Campus Course Offerings

Course Offering	Description
<b>Elementary Courses Grade K4 – Grade 5</b>	
K4 Language Arts	In the K4 Language Arts class students will work towards recognizing all 26 capital and lowercase letters, learning all 26 letter sounds, and also learning the correct writing formation of each capital and lowercase letter. By the end of the course students will recognize colors, participate in phonemic awareness activities (such as rhyming words, syllables, and counting the number of words in sentences). Students will also work to write their first name correctly by the end of the course.
K4 Math	In the K4 math course, students will be recognizing and writing the numbers 0-10. Students will work towards rote counting over 20 and recognizing 2D and 3D shapes. Students will also sort sets of objects, make patterns, and learn about greater than and less than. The beginning steps to addition and subtraction will be introduced.
K4 – K5 Social Skills	In this course students will explore the behaviors that are part of being a successful student, peer, and friend. Students will learn and practice how to be good listeners, ask a question, and other skills used in a classroom. Students will then learn and practice sharing, playing games, and other skills needed to make friends. Students will even look at and explore the emotions they will experience and how to notice what emotions other students are feeling.
K4 Library	K4 Library - Students will jump into learning the alphabet one story at a time. Each story includes a letter of the alphabet in its title. The stories are written by children’s authors including Mo Willems, Greg Pizzoli, Eric Carle, Dr. Seuss, and more.
K5 Language Arts	In the K5 Language Arts course students will learn letter formation, recognition, and the sound each letter makes. The K5 student will be able to blend sounds to begin reading and writing CVC words. The first sound fluency, letter naming fluency, and phonemic segmentation will be taught and practiced in lessons and activities. The students will be introduced to concepts of print with leveled readers as well as picture books. Writing sentences will be modeled using sight and color words that are taught weekly.
K5 Math	In the K5 Math course the students will use the Envision Math series. The students will be counting to 100 and writing the numbers from zero to twenty-five. Number and shape recognition are practiced in daily lessons. Students will learn many strategies for adding and subtracting.
K5 Library	K5 Library - Students will connect authors with their work while the librarian reads stories in ALPHABETICAL order. Each story contains the next letter of the alphabet somewhere in its title. Authors include Mo Willems, John Lennon, Jory John, Jonathan London, and more.
K4-K5 Art	The K4 and K5 art projects focus on important artistic skills the students need in order to grow and build upon their artistic abilities that they already have. We will focus on color mixing and theory through the use of paint, sculpting, practicing observation skills, and showing their own unique creativity.

K4-K5 Physical Education	Physical Education class is designed for K4 and K5 students to practice and develop skills in activities that will help students maintain fitness throughout their life. This class will focus on strength, flexibility, speed, endurance, skill, motor planning, and balance.
K4-K5 Music	This course is designed to expose students to basic music skills and concepts. Students will be introduced to music ideas such as fast and slow, loud and quiet, steady beat, spatial awareness, body percussion, etc. These skills will be the foundation to various music skills, and will be expanded throughout his or her music education.
Grade 1 Language Arts	Students in the first grade will learn the appropriate way to formulate letters, both upper and lower case, in the print form. They will be exposed to types of sentences, proper use of punctuation, and parts of a sentence, including grammar. With the use of various graphic organizational tools and pre-writing instruction, the students will learn beginning writing skills in narrative, opinion, and informational form.
Grade 1 Reading	With a phonics-based curriculum, students will progressively build their phonemic awareness throughout the program. In conjunction with word study, comprehension and reading skills, vocabulary, spelling, and exposure to various genres of literature and non-fiction text, the students will begin to build their fluency to create a solid reading foundation, build their reading confidence, and enhance their enjoyment of reading.
Grade 1 Math	In Grade 1 Math, students learn the fundamentals of Mathematics. The course focuses on building an understanding of how numbers are related and the basic rules of addition and subtraction, extending the counting sequence to 120, using linear measurement, working on creating and recognizing shapes, interpreting data, and telling time.
Grade 1 Art	In this course students will learn how to create art using a variety of different materials. They will learn about painting, drawing, collage, printmaking, and sculpting while making both two dimensional and three-dimensional artworks. Students will also learn vocabulary describing different colors, art terms and other types of art making skills.
Grade 1 Music	Students in first grade music will be exposed to a variety of musical topics and music theory. Students will be able to sing and perform using rhythm sticks. The students will learn about the percussion family and the ensemble STOMP.
Grade 1 Library	Students will discover the basics about libraries and books, explore typing and internet safety skills, and be exposed to a variety of authors and illustrators. They will be encouraged to use proper book manners and become familiar with the Caldecott Award.
Grade 1 and 2 Physical Education	Physical Education class is designed for Grades 1 and 2 students to practice and develop skills in activities that will help students maintain fitness throughout their life. This class will focus on strength, flexibility, speed, endurance, skill, motor planning, and balance.
Grade 2 Language Arts	Students in the second grade will learn the appropriate ways to formulate letters, both upper and lower case, beginning with slant print and ending with cursive writing. Students will use the writing process to create opinion and narrative essays, and informational paragraphs. They will focus on correct sentence formation, and the correct use of punctuation, including the various parts of speech.

Grade 2 Reading	Students in the second-grade curriculum will continue to build their confidence and fluency of reading to develop into life-long readers. With the use of comprehension and reading skills, vocabulary, word study, spelling, more in depth phonemic awareness, and exposure to a wide variety of grade-level fiction and nonfiction texts, the students will gain the skills necessary to become independent readers.
Grade 2 Math	In Grade 2 Math, students are introduced to working with larger numbers within 1,000, extending the fundamentals of addition and subtraction to three-digit numbers, and begin working with equal groups to form a foundation for multiplication. They also continue to learn and work more in-depth with time, money, measurement, and data.
Grade 2 Art	In this course students will learn how to create art using a variety of different materials. They will learn how to work with the tools and materials for drawing, painting, and sculpting. Students in this course will create both two dimensional and three-dimensional projects using a variety of materials. Students will also learn different art vocabulary terms when creating a variety of art projects during the school year.
Grade 2 Music	Students in second grade music will be exposed to a variety of musical topics and music theory that builds upon their previous knowledge. Students will be able to sing and perform using kazoos. The students will learn about the brass family, marching band ensembles, and composer John Phillip Sousa.
Grade 2 Library	Students will be introduced to the various parts of a book. They will explore different types of libraries and be exposed to a variety of children's authors and illustrators. They will also continue to practice their typing skills and dive deeper into how to be safe internet users.
Grade 3 Language Arts	In third grade language arts, the students will develop their spelling, grammar, and writing skills. The students will know and apply grade-level phonics and word analysis skills and read irregularly spelled words. Additionally, the students will write for different purposes and audiences. They will write a clear and focused text to convey a well-defined perspective and appropriate content. In their writings, the students will use proper grammar, usage, capitalization, punctuation, and spelling. Ultimately, they will learn to draw evidence from literary or informational texts to support analysis in their writings.
Grade 3 Reading	In this third-grade reading course, students will read grade-level text with appropriate pace, accuracy, expression, and understanding. They will learn to read multi-syllable and grade-appropriate, irregularly spelled words. The students will use the text and context clues to determine the meaning of vocabulary words. Furthermore, the students will analyze and answer comprehension questions by using specific examples from the text. Throughout the year, the students will read a variety of fiction and non-fiction texts and will analyze the texts to determine main ideas and supporting details, draw conclusions, compare and contrast, understand characters, and determine the author's purpose.
Grade 3 Math	In third grade your child will refine their skills with addition and subtraction and then move on to an understanding of multiplication and division, and the relationship between the two. By the end of third grade they should know their multiplication and division facts fluently. Your child will learn how to apply this knowledge of the four operations to real world and two step problems. They will also be learning the basics

	of fractions and geometry. Additionally, they will be spending time gaining knowledge about measurement and data. They will study telling time to the nearest minute, understanding capacity and mass, recognizing and understanding money, area, perimeter, and graphing data.
Grade 3 Science and Social Studies	Grade 3 Social Studies curriculum and content is driven by the Pennsylvania State Academic Standards in Economics, Geography, History, Civics and Government. The primary level of the standards describes what students in Pre-K through Grade 3 should know and be able to do. At the Third-Grade level students will continue upon a journey starting internally and spiraling out to their neighborhoods, communities, city, state and nation. Examples of what students should know and be able to do are identify the difference between past, present and future using timelines and/or other graphic representations, identify and describe historical documents, artifacts, and places critical to United States history, identify the physical characteristics of places and regions and identify the effect of people on the physical systems within a community. This course was designed to meet these standards.
Grade 3 Music	Students in third grade music will be exposed to a variety of musical topics and music theory that builds upon their previous knowledge. Students will be able to sing and perform using bucket drums. The students will learn about the woodwind family, chamber music ensembles, and composer John Williams.
Grade 3 Library	Students will study proper typing skills, safe internet practices, and basic programming. They will be exposed to different genres of literature and their call numbers in a library. They will gain an understanding of plagiarism and conduct a book study on a Roald Dahl novel.
Grade 3 and 4 Physical Education	Physical Education class is designed for Grades 3 and 4 students to practice and develop skills in activities that will help students maintain fitness throughout their life. This class will focus on strength, flexibility, speed, endurance, skill, motor planning, and balance.
Grades 3 and 4 Art	Grades 3 and 4 Art will focus on optical illusions using one point perspective adding depth to their drawings, sculpting, weaving, stop motion animation, blending and shading colors using paint, using technology and nature to share their own unique artistic abilities.
Grade 4 Language Arts	In fourth grade language arts, the students will develop their spelling, grammar, and writing skills. Throughout the course, the students will demonstrate a grade-appropriate command of the conventions of standard English grammar, usage, capitalization, punctuation, and spelling. The students will write informative and explanatory texts to examine a topic and convey ideas and information clearly. The students will learn to draw evidence from literary or informational texts to support analysis, reflection, and research in their writings. In this class, fourth graders will learn to read, discuss, and write about complicated stories, rich poems, plays, informational books, and articles.
Grade 4 Reading	In this fourth-grade reading course, students will read grade-level texts with accurate comprehension, pacing, and expression. The students will use previous knowledge to read unfamiliar multisyllabic words. They will use the context of a text to determine the meaning of words. Additionally, the students will identify, compare, and contrast different perspectives from which texts are written (first vs. third person). The students will learn to interpret and connect information from text and graphic

	features. Throughout the year, the students will use specific examples from the text to explain characters' motivations, main events, central themes, and ideas about a text.
Grade 4 Math	In fourth grade, students focus most on using all four operations - addition, subtraction, multiplication, and division - to solve multi-step word problems involving multi-digit numbers. They also extend their understanding of fractions to include finding equivalent fractions, ordering fractions, multiplying whole numbers by unit fractions, and understanding the relationship between fractions and decimals. In geometry they will learn about symmetry and classifications of 2D figures. They will also spend time solving real world and multi-step problems that involve time, money, measurement, volume, mass, area, perimeter, and graphs. Fourth graders also begin to understand the metric system.
Grade 4 Science and Social Studies	Grade 4 Science -Students will discover the wonders of earth and other planets, weather, and physical landforms and regions. They will also see how natural disasters affect our environment.  Grade 4 Social Studies- Students will study the land and regions of the United States. The students will broaden their awareness of our country's history, geographic features, and cultural heritage.
Grade 4 Music	Students in fourth grade music will be exposed to a variety of musical topics and music theory that builds upon their previous knowledge. Students will be able to sing and perform using recorders. The students will review all instrument families, learn about the jazz ensemble, and composer Louis Armstrong.
Grade 4 Library	Students will discover new ways to research through a biography project. They will continue to hone their typing skills, safe internet practices, and programming abilities. Through a book study of a Roald Dahl novel, they will gain an appreciation for literature and continue to delve into genres and how to find items in a library.
Grades 4 and 5 Physical Education	Physical Education class is designed for Grades 4 and 5 students to practice and develop skills in activities that will help students maintain fitness throughout their life. This class will focus on strength, flexibility, speed, endurance, skill, motor planning, and balance.
Grade 5 Language Arts	Fifth Grade ELA will focus on increasing the students' knowledge and understanding of the English language. We will study grammar and word usage. The students will have Spelling tests each week. We will also work on improving the writing skills of students through citing evidence from the text and making connections.
Grade 5 Reading	Fifth Grade Reading will focus on making connections and developing comprehension skills using grade-level texts. There will be targeted vocabulary each week as well as routine writing. Novels are also incorporated into the course to recall relevant information and discuss.
Grade 5 Math	Fifth Grade Math focuses on advancing the students' math knowledge from previous years. We extend their understanding of how to apply prior knowledge in problem solving and understanding the relationship between fractions and decimals. Students will also learn how to apply the four operations to fractions and mixed numbers. They will expand their knowledge to find the volume of cubes and prisms as well as converting customary units of length, weight, and capacity.



Grade 5 Science and Social Studies	<p>Grade 5 Science-Students will take a close look at the structure of matter and organisms, simple machines, force and motion, energy, electricity, and plants.</p> <p>Grade 5 Social Studies- Students will study the history of America from the early inhabitants of North America through the American Revolution. They will learn about life in Colonial America and the events that led up to the Revolutionary War. Students will also be introduced to states and capitals in preparation for 6th-grade.</p>
Grade 5 Art	In this course students will learn about a variety of techniques to create and make through many different materials. Students will learn how to work with rulers, patterns, paintings, digital art and creating optical illusions. Students will also learn more about different art terms through each project. Students will have some directions to follow, but given the choice depending on the material or design.
Grade 5 Music	Students in fifth grade music will be exposed to a variety of musical topics and music theory that builds upon their previous knowledge. Students will be able to sing and perform using ukuleles. The students will review all instrument families, learn about the orchestra, and composers Mozart, Beethoven, and other classical composers.
Grade 5 Library	Students will become proficient in their use of technology including typing skills, safe internet practices, and programming. They will become proficient in their knowledge of book genres and the use of the Dewey Decimal System. They will also gain an understanding of encyclopedias, thesauruses, dictionaries, and copyright.

### Secondary Courses Grades 6 -12

Grade 6 Language Arts	This course is designed to deepen students' understanding of grammar, mechanics, and writing through practice and essay prompt responses. In addition, students will be expected to read a chapter book of their own choosing monthly which is a shared requirement of Reading 6. The primary goal of the course encourages the continued development of the students as independent writers and thinkers.
Grade 6 Reading	This course is designed to focus on both literature and nonfiction text. A variety of strategies will be used to enhance comprehension, vocabulary, critical thinking, and writing through all genres of literature including nonfiction. Students will also be asked to analyze and respond to text. In addition, students will be expected to independently read chapter books of their own choosing monthly and to respond to their reading through journaling. This chapter book is a shared requirement of Language Arts 6. The primary goal of the course is the continued development of the students as independent readers, writers, and thinkers.
Grade 6 Math	This course covers the 6th Grade Common Core Math Standards with a focus on four critical areas: (1) connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems; (2) completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers; (3) writing, interpreting, and using expressions and equations; and (4) developing understanding of statistical thinking.
Grade 6 Science	Science 6 is an integrated science course aligned to PSSA science standards designed for middle school students. Science 6 is centered around physical science concepts with a focus on basic science skills and measurement in the natural world. Students

	will investigate matter and energy while they explore heat, electricity, chemistry and motion. Students will be given hands-on activities each quarter that will help them model and explore various concepts related to class work.
Grade 6 Social Studies	<p>Pennsylvania and the World</p> <p>The first semester of sixth-grade social studies focuses on map and globe skills. Students will concentrate on learning the names and locations of the countries around the world. This section of the course will culminate with a novel unit based on the Jerry Spinelli book, <i>Maniac Magee</i>. During the second semester, students will concentrate on Pennsylvania History. The students will use Pat Hughes's book, <i>Breaker Boys</i>, to make connections to the PA coal mining industry. Both 6th-grade Reading and PA and the World courses are linked together, allowing for assignments to be graded and evaluated by both teachers.</p>
Grade 6 Physical Education	This introductory middle school course is all about sports and movement. Students enrolled in this course will be introduced to information which they can utilize to develop a healthy, active lifestyle. Students are introduced to a wide range of sports and athletics, including winter sports, team sports, individual sports, motor sports, and more. The course includes activity logs with an expectation of 150 minutes of documented physical activity per week.
Grade 6 Library	Library Science is an introductory course to research where we become quasi expert Googlers and masters of information. You will learn to search different databases using effective internet strategies while learning how to identify credible sources. We will discuss Intellectual Property Rights and how the internet has changed these laws for the betterment of creativity, we will also delve into coding and the potential dangers of being connected to the internet.
Grade 6 Music	Music - 6 is an overview of different topics in music broken down into six modules. The first module focuses on the classical composer "Beethoven." The second module looks at different composers from different eras: Handel, Debussy, Berlin, Sousa, and Whitacre. The third module focuses on music theater by looking at "Into the Woods," "Newsies," and "Hamilton." The fourth module reviews basic note reading skills to prepare for module five. Module five is a brief unit on composition using the "Chrome Song Maker" application in Google. The last module (six) introduces five careers in music outside of performing or teaching.
Grade 6 Art	6th Grade ROC Art explores the elements of art, the basic compositions of traditional and digital art forms. Students will explore one-point perspectives, pop art, color techniques, and use their skill set to create a final project they are proud of. Students have the ability to use digital or traditional methods for creation.
Grade 7 Language Arts	<p>The overall goal in Language Arts is to help you become stronger readers, writers &amp; thinkers. We will work closely with your READING course to create lessons that will help you in both classes. The primary purpose of this course is to enable students to communicate effectively in English. Students will learn English through an integrated approach incorporating writing, reading, vocabulary, grammar, spelling, and speech. Using the <i>Prentice Hall Literature Volume II</i> book, seventh grade Language Arts will read drama, poetry, and folk tales. Some of the reading this year will be done in class, although some outside reading will be required.</p> <p>Using the <i>IXL</i> and other online sources, students will review the parts of speech and be expected to apply the skills they learn in class to their writing. These exercises will help</p>

	<p>them learn to apply specific spelling and grammar proofreading skills that are expected across the curriculum areas when they write. They will also write formal and informal compositions to correspond with many of these cross-curricular writing &amp; reading units. Some of the writing will be done in class, although some outside work will be required. All formal compositions will emphasize the writing process and will include lessons on our newest writing format, the Text Dependent Analysis.</p>
Grade 7 Reading	<p>This course focuses on reading comprehension and reading strategies. Students will benefit from a wide variety of fiction and non-fiction literature from magazines, newspapers, novels, websites, and the Prentiss-Hall Literature book. Assignments will be dedicated to practicing and mastering skills in reading comprehension, vocabulary, writing, and analysis of text.</p>
Grade 7 Math	<p>This course covers the 7th Grade Common Core Math Standards with a focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples.</p>
Grade 7 Science	<p>In this course students will be introduced to basic concepts in ecology and life science. Some of the ecology topics that students will be instructed on include: how energy moves through an ecosystem, water testing, point source and non-point source pollution and biotic and abiotic factors that affect an ecosystem. Some life science topics include cell structure, cell processes classification of life.</p>
Grade 7 Social Studies	<p>Ancient World begins with the dawn of humanity with the study of prehistoric man and archaeology. The course then moves into the earliest farming villages and the development of civilization. Students will learn about the early river valley civilizations of Mesopotamia, Ancient Egypt, and China. The course will also cover early Judaism, Christianity, Hinduism, and Buddhism. Finally, the course wraps up with the great classical civilizations of Greece, Rome, Carthage, and Persia.</p>
Grade 7 Physical Education	<p>In this course, middle school students will learn information which they can use to help them develop an active, healthy lifestyle. Topics covered include assessing personal physical fitness, skill-related fitness, health, sports practice and participation, the Physical Activity Pyramid, safe physical activity, and aerobic and muscular fitness. The course includes activity logs with an expectation of 150 minutes of documented physical activity per week.</p>
Grade 7 Technology Education	<p>The seventh grade ROC technology education class will give students an introduction into technology, technology education and engineering. These concepts will be reinforced by implementing them into a bridge component where students will learn about forces, loads and shapes that engineers must consider when creating structures such as bridges. Students will engage in a number of assessments in the form of quizzes, videos, hands on assignments and traditional assignments.</p>
Grade 7 Family and Consumer Science	<p>During this 30-day course students will be exploring their personal development and relationships. They will be able to gain an understanding of themselves in relation to their surroundings and others. Three main topics will be covered: personal development, families, and developing communication skills.</p>
Grade 7 Music	<p>Music 7 is a general music class focused on music literacy and theory as well as the history of rock in America. Students discover the basic building blocks of the music</p>

	we listen to enabling them to read, compose, and potentially learn to play music. The history sections cover the emergence of rock n' roll in America through the British Invasion of The Beatles.
Grade 8 Language Arts	The primary purpose of Language Arts 8 is to help students improve students' understanding of poetry, drama, and mythology and the way these types of writing relate to other works of literature. This course also aims to improve the stylistic elements of students' writing. This will be accomplished through the study of figurative language, various poetry, plays, instruction on the writing process, and completion of several essays.
Grade 8 Reading	This course focuses on building upon student's ability to analyze what they have read. Students will read a variety of fiction and nonfiction texts. There will also be a focus on reading comprehension strategies, as well as written expression. Students will respond to texts and will receive instruction designed to improve fluency, comprehension, grammar, and writing. There are projects scattered throughout the course to give students the opportunity to demonstrate their mastery of skills. A few projects and units will be shared between the Reading 8 course and the Western Civilizations course. For these projects students will receive a grade in both courses.
Grade 8 Math	Students will be introduced to the abstract concepts of algebra as they continue to build on the concrete concepts of basic mathematics. Grade 8 Math deeply explores the concepts of geometry, exponents, transformations, measures of central tendency, and number theory. Students will learn to solve multi-variable equations and direct/inverse variation problems. The course will introduce new concepts including graphing linear functions, slope-intercept equations, applications of the Pythagorean Theorem, and properties of circles, arcs, and sectors.
Grade 8 Science	Science 8 is an integrated science course aligned to PSSA science standards designed for middle school students. These activities will guide students as they learn about our natural world, space and the natural events that shape our lives. Students will be given hands-on activities each quarter that will help them model and explore various concepts related to class work.
Grade 8 Social Studies or Western Civilizations	As a continuation from Ancient World, 8th grade begins with a focus on the European Dark Ages. Students learn how the Germanic nations struggled with the help of the Catholic Church to remake civilization in the Middle Ages. Medieval topics include the crusades, the Mongol invasions, and the rise of trade and industry. The course finishes up with the Renaissance, the Reformation, and the establishment of the 13 colonies in the Americas. Throughout this course, students will read five different novels connected to the content.
Grade 8 Physical Education	In this course, middle school students will learn information which they can use to help them develop an active, healthy lifestyle. Topics covered include assessing personal physical fitness, sports and recreation, muscular fitness, health, the Physical Activity Pyramid, body composition, nutrition, and setting fitness goals. The course includes activity logs with an expectation of 150 minutes of documented physical activity per week.
Grade 8 Technology Education	The eighth grade ROC technology education class is the continuation of the seventh grade Technology Education class. This course will provide students with additional exposure to technology and engineering. Students will engage in a number of

	activities and hands on assignments in this course that will serve as a gateway to high school technology education courses.
Grade 8 Computer Applications	Students are introduced to basic touch keyboarding, data entry, and basic business skills as they create documents, presentations, drawings, and spreadsheets. Modern digital health concepts are also discussed, including digital emotional intelligence, digital dependency, online privacy, and evaluating content for accuracy and perspective. Students will also be introduced to basic computer programming through block coding concepts.
Grade 8 Art	8th Grade ROC Art builds on the elements of art foundation and explores the principles of art and design. Students will take an in depth look at painting styles, artists, and time periods that are significant to art movements. Students will use historical information to shape their own art projects and develop their voice as an artist. This course will conclude with a final choice project, allowing students to showcase their work and efforts.
Academic English 9	This introductory level course is designed to transition students from middle school reading and language arts to the expectations of a high school English classroom. Studies will focus on the reading of many forms of literature, various styles of writing, vocabulary, and grammar skills. Additionally, this course helps students develop research skills. Students will read short stories, a novel, drama and poetry. Students will compose creative writing pieces, as well as informative, and persuasive pieces.
Academic English 10	This course focuses on literature by authors from around the world. However, it is also designed to help students master writing, speaking, reading comprehension, listening, and research skills. Academic English 10 includes a variety of elements that will help you function in the college and working worlds AND help you make sense of the world around you. We will read classic academic novels, short stories, poetry, and nonfiction as a class and discuss their significance to our world. Students will complete various types of formal essay writing and creative writing assignments, including a research paper.
Academic English 11	The ROC 11th Grade English course focuses on the chronological study of American literature beginning with Pre-Colonial literature and ending with contemporary literature. Students will improve their writing, reading, and analytical skills as they progress through a variety of texts including <i>The Crucible</i> and <i>The Great Gatsby</i> . Students will continue to improve their writing skills by composing a variety of texts for a variety of purposes. Students will expand their research capabilities through an independent research study.
Academic English 12	In this course, students will read and analyze various pieces of British literature. By the end of the year, students should be able to demonstrate knowledge of British literature, the origins and progression of British writing, and the various periods in history that affected British authors. Students will do this in several ways, including writing essays and creative assignments, writing research papers, and producing computer-generated projects. We will read classic academic novels, short stories, poetry, and nonfiction as a class and discuss their significance to our world. Students will complete various types of formal essay writing and creative writing assignments, including a research paper.

Grade 9 Academic American Cultures I	American Cultures is a study of the United States and its people. It covers colonization, the American Revolution, the constitution, the presidents, slavery, the Civil War, and reconstruction. Skills emphasized are map reading, notetaking, cartoon analysis, creative writing, and critical reading.
Grade 10 Academic American Cultures II	Students will analyze and discuss America's achievements and mistakes in both foreign and domestic policy from the western movement through World War II. A major goal of this course is to develop within students a working knowledge and appreciation of our past and present American culture. While achieving this goal, students will also become aware of the evolution of their individual rights and freedoms as American citizens.
Grade 11 Academic US and the World	The third course in the American historical sequence begins with a post-World War II era and continues to the present. The emphasis of the course is on the role of the United States as a world leader and its interaction with other regions of the globe. Both domestic and foreign affairs will be studied in this context. Intertwined with the American emphasis, the course will be an overview of significant Western and non-Western cultures and how they interact with the United States.
Grade 12 Academic American Government and Economics	The first half of the year students will learn about basic constitutional principles that affect all levels of government and, ultimately, the people of the nation. Considerable time will be spent on the organizational structure of the federal, state and local government and how each level affects the lives of the American people. The rights and responsibilities of a citizen within the system will be heavily emphasized. Current events, as related to the study of government, will be an integral part of the course. During the second half of the year the focus of the course changes to economics and the student's role as a consumer. Heavy emphasis will be given to the concepts of capitalism in a market economy: basic principles, the role of resources, the role of government, and the role of the consumer. Much of the course will be devoted to consumer economics: wise consumption, budgeting, wise use of credit, banking, and the role of taxation. Emphasis will be given to the problems facing our economic system.
Grade 9 -12 Wellness	Students are introduced to a broad range of topics, issues and information as they explore personal health and wellness. The importance of knowledge, attitudes, and behavior are emphasized as students reflect on their current lifestyle practices and explore models of behavior change to implement strategies and techniques promoting lifelong healthy lifestyle choices. Students are encouraged to take responsibility for personal wellness as they investigate topics in physical fitness, healthy eating, weight management, psychosocial components of health, stress management, sexual health, disease awareness and prevention, substance use, misuse, and abuse, personal safety and social media awareness.
Algebra 1	Algebra 1 topics include operations with real numbers, solving equations and inequalities, graphing and solving linear equations and inequalities, operations with polynomials, evaluating exponential expressions, factoring, simplifying rational expressions, and solving/graphing systems of equations. There will be a focus on problem-solving and word problems as well. At the end of this course, students will be taking the state standardized test, the PA Keystone Exam.
Algebra 1A	Algebra 1A covers the prerequisite skills and problem-solving skills necessary to ensure students are ready to successfully master the content of Algebra 1. Once these

	skills are masters, students will begin to learn the basic Algebra 1 concepts. The pacing of the course enables for more time to practice skills and concepts. Topics include operations with real numbers, simplifying algebraic expressions, solving equations and inequalities, graphing and solving linear equations and inequalities, and basic statistics and probability.
Algebra 1B	Students who have completed Algebra 1A will enroll in Algebra 1B, which is a continuation of the Algebra 1 concepts learned. With a focus on problem-solving, topics include solving equations and inequalities, graphing and solving linear equations and inequalities, performing operations with polynomials, evaluating exponential expressions, factoring, understanding rational expressions, and solving/graphing systems of equations. By the end of this course, students will be prepared to take the state standardized test (PA Keystone).
Algebra 2	The topics covered in Algebra II are functions - linear, radical, quadratic, exponential, and logarithmic - and their graphs, rational expressions and equations, linear and compound inequalities, rational exponents, solving systems of linear and quadratic equations, and systems of linear and quadratic inequalities. The content of algebra II is organized around families of functions which will be represented in multiple ways - as verbal descriptions, equations, tables, and graphs. Real world applications using functions will be modelled and problems arising from those situations will be studied.
Geometry	In this course students will learn the following topics: Essentials of Geometry, Basic Geometric Proof Writing, Parallel and Perpendicular Lines, Congruent Triangles, Relationships within Triangles, Similarity, Right Triangles and Trigonometry, Quadrilaterals, Properties of Circles, Measuring Length and Area, and Surface Area and Volume of Solids. Students will learn geometric properties and theorems and how to apply them to solve problems. Logical thinking and problem-solving skills will be developed by working through various geometry problems.
Precalculus	The topics covered in Precalculus weave together previous study of algebra, geometry and functions as a preparatory course for calculus. The course focuses on a more complete mastery of skills necessary for subsequent math courses at the college level. The topics included are: intermediate algebra, systems of equations and inequalities, functions and graphs, polynomial functions, rational functions, inverse functions, logarithmic and exponential functions, trigonometry, and an introduction to limit concepts. This course will develop skills both in traditional calculation and the use of technology to advance understanding. Text: Precalculus with Limits, 2nd Edition, Larson.
Physical Science	This course is designed to introduce students to the coursework that they may encounter as they progress through the high school science curriculum. This course will closely match the content of the traditional brick and mortar Physical Science 9 course. The major topics covered will include scientific method, physics, chemistry and environmental science.
Comprehensive Science	This high school science elective course is designed to review both life science and physical science concepts to upperclassmen. In this course students will review the major themes of Biology with more of a macroscopic, human centric focus than the first-year biology course. The course will also review physical science topics with

	chemistry and physics being the main focus. As the students review these topics, they will also be challenged to develop problem solving skills along the way.
Biology	This high school course is designed to introduce and review the science discipline of biology. In this course students will learn about the Characteristics of Life, The Basic Chemistry of Biology, Cell Biology (structures and functions), Genetics, Evolution, and Ecology. The goal of this course is to develop a better understanding of the living world and our place in it. This is also a Keystone Tested Subject that will prepare students for a cumulative assessment at the end of the course.
Chemistry	This is an introductory chemistry course. A strong background in algebra and biology is recommended. Units of measurement, temperature, conversions, and structure of the atom will first be reviewed. Students will then learn about current atomic theory, chemical bonding and chemical nomenclature. Knowledge of nomenclature will then be applied to write, balance, and classify chemical equations. Mathematical skills will then be applied to the study of composition and reaction stoichiometry. Problem solving skills are heavily emphasized.
Child Development 1	After studying Child Development, I, you will be able to explain how social and economic changes will increase the need for child care services and early childhood teachers. You will also be able to describe career opportunities in the early childhood field and determine personal characteristics that can help early childhood teachers care for and educate young children. You will be exposed to the various types of early childhood programs available to parents and be able to assess the advantages and disadvantages of each type of program. You will also be able to recognize licensing rules and regulations that help keep centers safe and list the components of center accreditation. During this course you will also learn about the physical, cognitive, emotional, and social development of children up through the age of 12. You will be able to chart, describe, and explain how children from birth to age 12 grow in all four areas of development and what milestones you can identify to help assess their progress. You will learn about the purpose and importance of assessment and be able to compare and contrast each method of assessment appropriate in the early childhood classroom. Last but not least you will be able to summarize how theories about development can be used as practical guides to early care and education. This will include contrasting the developmental theories of Erikson, Piaget, Vygotsky, and Gardner. This course is designed to help prepare you for the Child Development Associate Credential and a possible career in the early childhood field.
AP European History	The European history elective reviews modern political, economic, and cultural events of Western and Eastern Europe from the medieval era to the present day. Advance placement (AP) students will experience college level skills of lecture, reading, document analysis, and free response essay writing. Students may use the AP title on their college applications, even if they do not receive the necessary college credits. Those receiving a higher score of the AP test may be able to apply for college credits depending on their future university. Taking the AP exam at the end of the year is strongly recommended. There is an exam fee. However, for students have an economic need, the test is free.
Spanish 1	The primary goal of this course is to introduce students to the Spanish language and culture. We will focus on 4 skills to help students achieve the goal of Spanish



	<p>proficiency at the beginner level. These skills include: reading, writing, listening, and speaking. Students will be introduced to vocabulary on basic greetings, numbers, school, families, activities/hobbies. Students will learn to converse in the present tense. Culture and customs will be introduced to help students make a connection between the USA and other countries.</p>
Spanish 2	<p>The goal of Spanish 2 will be to build upon the fundamental language elements taught in Spanish 1 and continue to focus on the language skills of reading, writing, listening, and speaking in Spanish. Students will continue to develop vocabulary with units on food, celebrations, music, clothing, weather and activities. Students will continue to develop cultural awareness by discussing the vocabulary themes. Students will expand their concept of grammar by learning the past tense.</p>
French 1	<p>During this French I course students will learn new knowledge about the French language and culture. They will practice skills in pronunciation, grammar structures, and vocabulary. Oral practice, homework assignments, games, songs, watching videos and DVDs, quizzes, tests, projects, and class activities, etc. will be used to accomplish this goal. The different cultures of the French-speaking world are emphasized through readings, videos and other activities. Taking the time to learn another language is a mind-expanding activity that can open up a world of opportunities and advantages. Students will be able to talk about themselves, their family and their hobbies by year-end.</p>
French 2	<p>During this French II course students will expand on the knowledge gained from French I and further develop their skills in pronunciation, grammar structures, and vocabulary. Oral practice, homework assignments, games, songs, watching videos and DVDs, quizzes, tests, projects, and class activities, etc. will be used to accomplish this goal. The different cultures of the French-speaking world are emphasized through readings, videos and other activities. Taking the time to learn another language is a mind-expanding activity that can open up a world of opportunities and advantages.</p>
Studio Arts	<p>This course is designed to acquaint you with basic techniques of art. It is a project-based class where you will be creating in several mediums, such as drawing, painting, computers, sculpting, and more. There is an emphasis on good craftsmanship and improvement. Several of the projects will have an art history component as a take-off point for the lesson. This class is designed for you to be successful at many levels of skill. You should plan to successfully complete all of the projects and document your progress. The documentation will allow for feedback as you complete your assignments and make improvements as needed to complete your work successfully. All work must meet class standards and be completed by the due dates. All supplies will be provided by the school as needed.</p>
Photography	<p>Digital Photography is a yearlong course that offers students an opportunity to learn the elements of art and photography. Students will learn the basics of photographic composition and lighting, the basics of using a digital camera and how to digitally manipulate their photographs to enhance the final image. Students will also learn basic color theory and the fundamentals of image processing. This course is designed for the student who has no background in photography. Students must have access to a digital camera. Digital cameras that can be used for this course are: cell phone cameras, point and shoot digital cameras, prosumer digital cameras or DSLR digital</p>

	cameras. Students will also have the opportunity to apply the concepts they learn with the goal of building a photography portfolio at the end of the course.
Marketing	This course is an introduction to the basic principles of marketing. Topics include the Marketing Mix (product, place, price, promotion), Marketing functions and utilities, SWOT analysis, Marketing research and segmentation, and branding. Students will prepare a Marketing Plan as a final project.
Accounting	In this course, you will learn introductory concepts and practices that form the foundation for further study of accounting, or to better manage your own personal finances. Students interested in careers in business, especially management, finance, or entrepreneurship, should complete at least one accounting course. Truthfully, accounting is the language of business. Without accounting information, stakeholders would not be able to make sound business decisions, and leave their business's future up to chance.

**New Electives for the 2022-2023 School Year**

Child Development 2	The Child Development 2 course offered through ROC will be a continuation of the Child Development 1 course currently offered. In Child Development 2 we will discuss how to develop guidance skills to help children through their development years and establish classroom limits. Students will have the opportunity to participate in an on-line mandated reporter training and receive a certification stating that they successfully completed the course. Students will also learn about the early childhood learning standards established by the state of Pennsylvania and the effect they have on the curriculum. Students will be required to create lesson plans throughout the course keeping in mind the PA standards. We will continue by working through multiple chapters and learning how to teach early childhood students about science, social studies, art, block-building and creating effective lessons along the way. Throughout this course, students will have the opportunity to receive multiple certifications/credentials to help establish a successful path to graduation.
Computer Science	Prerequisite--in order to be successful in this course, students must have completed an Algebra I course with at least an 80% grade.  Students enrolled in this course can expect to learn the introductory concepts of coding using Carnegie Mellon University's CS Academy. CMU CS Academy is an online, graphics-based computer science curriculum taught in Python. This course will challenge the student's problem-solving and math reasoning skills while gaining confidence in computer science concepts.
Creative Writing	This course will focus on expressive writing in many different forms. Students will explore several different types of poetry and prose styles by reading a variety of existing literature samples. They will analyze these works to better understand the authors' meanings and what makes literature appealing to read. Students will be encouraged to discover who they are as individuals and as authors and poets. They will be encouraged to be themselves in their writing and let their personalities shine through. Originality and creative thought will be the focus of writing activities. Students in Creative Writing will write poems, short stories, plays, children's

	books, a memoir and other types of writing that express creativity. Peer discussions and editing sessions will be an essential part of the course.
Criminal Justice	Criminal Justice is presented as a practical, inquiry base course that is combined with competency building activities to help promote critical thinking and problem-solving skills. Students will progress through four modules; each module is devoted to a different area of our current justice system. Beginning with learning the basics of law, the legal system, and proceedings in a courtroom, students will have the opportunity to learn about and participate in activities that develop their knowledge of the foundation of the law and legal system in America. This is followed by the history of crime in the United States, a detailed examination of the ancient beginnings of law through the present day. Additionally, students will develop critical thinking skills as they dive into the unit on criminals and types of crime, where they learn to classify and analyze criminals based on their criminal behaviors. Finally, students will combine all of their content knowledge for a two-part research paper and project detailing the criminal justice process of a famous criminal. They will detail the crime and process through the criminal justice system along with creating a brochure for a famous prison that they will present to the class.
Ecology/ Environmental Science	Ecology is the study of organisms and how they interact with the environment around them. This course will include all the topics of Ecology regarding populations, communities, ecosystems and biosphere. The overall theme will be recognizing connections, interactions, impacts, and relationships.  This ROC course will use real stories from curated sources to learn more about the larger connected environment of our world. In this course we will stretch our boundaries and learn from real stories and connect those stories to what it means to be part of the population of Earth. Storytelling is one of the most impactful ways to gain perspective about things not personally experienced. The stories will come from a variety of reputable sources such as children's books, excerpts from published works, magazines, and websites. The stories will be the starting point for exploration, resulting in a deeper knowledge of ecology, biology, species relationships, energy, and other topics based on where the stories lead.
French 3	During this French III course students will expand on the knowledge gained from French I and II. Students will further develop their skills in pronunciation, grammar structures, and vocabulary. Oral practice, homework assignments, games, songs, watching videos and DVDs, quizzes, tests, projects, and class activities will be used to accomplish this goal. The different cultures of the French-speaking world are emphasized through readings, videos and other activities. Taking the time to learn another language is a mind-expanding activity that can open up a world of opportunities and advantages. Students will be able to talk about themselves, their family and their hobbies by year-end in several tenses.
LS HS English	Students in this English course will be given an adapted curriculum based on their Individualized Education Plan. This course will include vocabulary terms of common prefixes, suffixes and root words, high interest novels with activities that will guide their reading, aspects of plot, figurative language and creative writing styles. This English course will prepare students for the Language Arts Keystones Exam.
LS HS Math	Students in this Math course will be given an adapted curriculum based on their Individualized Education Plan. This course will focus on helping the student achieve

	<p>in math and obtain proficiency on the Algebra 1 Keystones Exam. The content of the course will be completely driven by the needs of the individual student ranging from basic math through Algebra 1 concepts. This course can be taken for multiple years in attempt to obtain proficiency and to comply with the expectations outlined in a student's Individual Education Plan.</p>
Personal Finance	<p>This course covers all of the essential personal finance topics necessary to become a financially capable student and young adult. Topics include: taxes, banking, saving, credit, investing, insurance, budgeting, and more. The course concludes with a simulation that showcases a family working with their teenage child to create a spending plan. Students identify the family's values, needs, and wants to make major expenditure decisions and create a spending plan.</p>
Psychology	<p>Psychology is the study of human behavior and mental processes. This class is a survey course that covers the history, modern debates, and some of the major principles of psychology. The topics include; the history of psychology and its major schools of thought, influential psychologists, nature vs nurture, personality, abnormal behavior, conditioning and learning, consciousness, sleep and dreams, memory, perception and sensation, and research methodologies, and experimental psychology. There is an emphasis on the practical application of psychological principles.</p>
Spanish 3	<p>The student will expand listening, reading, writing, and speaking skills, through oral and written work. The key components of communicating in the Spanish language and application of culture to real-life situations will be emphasized. The student will use the Spanish language to facilitate daily activities, communicate about self and others, adapt to a foreign speaking environment and explore the components of the target culture. Emphasis of everyday useful vocabulary, grammar review, reading and discussions of short, humorous stories, essays, composition, conversation, and magazine articles.</p>
Trigonometry and Statistics	<p>This is a semester course. The prerequisite for this course is to pass Algebra 2. The beginning of trigonometry reviews skills from prior courses to help students be more successful; such topics include: Pythagorean Theorem, Simplifying Radicals, Special Right Triangles. The first chapter focuses on the unit circle and students will learn: how to convert from degree to radian measure (and vice versa), how to use special right triangles to find the 6 trigonometric functions, The next chapter focuses on identifying odd and even functions along with graphing the trigonometric functions and their transformations. The last portion of this course focuses on solving trigonometric equations and using/verifying fundamental trig identities.</p> <p>Statistics is a semester course. The pre-requisite for this course is to pass Algebra 2. In this course we explore data analysis, we find variance and standard deviation of data sets; we find z scores of data and identify percentiles using z tables; we discuss normal distribution and its applications. We use technology and formulas to determine linear regression of scatterplots. We also explore probability concepts such as fundamental counting principle, sampling, Venn diagrams, permutations and combinations, odds, and conditional probabilities. We also calculate binomial expansions and apply the binomial theorem to probability.</p>

The Rockets Online Campus offers students choices to guide their educational experience while attending the Rockets Online Campus. Our Rockets Online Campus faculty, staff, and administration team will work endlessly to support your student and your family as your child goes through their educational journey. Our flexibility, passion for support, and solid curriculum will provide all Rocket Online Campus students with a superior educational opportunity. Please reach out to us and let us help you and your child choose their paths and make their education a positive and rewarding experience.

Thank you,

The Rockets Online Campus Team

