Einstein Hour
All Academy students will participate in the Einstein Hour makerspace. This course will involve groups of up to five students who will build a solution to a design challenge. Students will apply the engineering design process to Ask, Imagine, Plan, Create, and Improve by collaborating to brainstorm, model, build, test, and modify their solution. Students are encouraged to use information, resources, and project work from their other courses to assist with completing their Einstein Hour project.

Gr. 1-2
Jr. Scientists courses:
Chemistry: Ready, Set, React
Calling all potion masters! This course will show you how chemical reactions rule the universe. Explore what makes bread to rise, cars to drive, and stars to explode. Class activities will focus on introducing students to chemical reactions while applying creativity, communication, collaboration, and observation skills.

Pet Care 101
Do you love pets? This course will show you how to properly care for our favorite, furry family members. Explore best practices for dogs and cats, along with a few exotic species like lizards and birds. Students may be exposed to a trained, gentle dog or cat as part of the course activities. Students who are allergic to or are afraid of dogs and cats (and other popular pets) are discouraged from enrolling in this course.

Sparkle and Shine
Are you attracted to gems that sparkle? Do you ever wonder how they are made? This course will show you how minerals found deep within the Earth become sparkly, shiny items from jewelry to coins. Explore which mountain chain's formation gave us most of our rubies, which minerals are the most rare, and how we manage to cut the world's hardest mineral: diamonds!

Jr. Tech Trailblazers courses:
Scratch Jr.
Calling all digital storytellers! This introductory programming and creative writing course is designed to challenge students to create stories using the Scratch Jr app. Students will explore the elements of storytelling while also learning programming logic.

Rainbow Electronics
Do you love taking things apart and putting them back together? Explore the basic principles of electronics using resources such as Little Bits. You will work in groups and individually on challenging electronics activities that promote problem solving,
collaboration, communication, and the engineering design process. Electronic inventions developed in class may include a vehicle and a throwing arm.

**Digital Puzzle Design**
Do you love puzzles? Do you want to create your own puzzles? In this class, you will develop conceptual and visual problem-solving skills and graphic design skills related to the creative organization of space and representation of information. In order to design your own puzzle, you must inquire, question, explore, and experiment. We will use a variety of jigsaw puzzle creator and picture puzzle maker to help you design the puzzles you like!

**Jr. Rising Stars courses:**
**Artist's Canvas**
Are you a Van Gogh or a Picasso? Whatever your style, find your inner artist through this extension of Painting Techniques. Explore the history of art through the evolution of painting techniques. Guidance will be provided by an experienced artist. You will complete painted works modeled after the style(s) of your choice.

**Create Your Own Commercial**
“Quiet on the set!” It begins with a product followed by brainstorming ideas for selling a product. Storyboards are created, scripts are written, actors are cast, and well, you’ll have to take this course to find out how to and actually create a commercial. Come prepared to learn the ins and outtakes of commercial production.

**Future Pop Star**
Pop Stars are a triple threat on stage. They can sing, dance, and act. Join us to practice your pop star vocals and moves. Learn how to interact with one another while singing and dancing to bring a “show” or an “act” to life. We will focus on projection of voice, timing in music, and stage presence. Do you have the skills to sing and dance at the same time?

**Jr. Explorers courses:**
**Passport to the World**
Do children around the world have to go to school? Do you know how other children your age spend their time? Using virtual means, we are going to travel across the continents to investigate how children your age (and adults) live, learn, work, and play. What continent and country would you like to explore?

**Clay Apprentices**
Put on your smocks and roll up your sleeves! You will be sculpting with clay and learning about clay art in other cultures. Your masterpieces may include pottery, figurines, and other items of your choice.

**Creepy Crawlers**
Creepy CRAWLIES! Yikes! Cool! Gross! Let’s work together and discover how cool insects really are! Can you imagine walking around with eight legs? Would you be faster and more powerful? We will work as scientists, researchers and investigators to gain a greater understanding of the tiny creatures we see every day. Come and discover why bees dance, observe the growth of silkworms and/or beetles, and explore the lifecycle of the butterfly!

**Arts & Recreation courses:**  
**G&T Chorale**  
Do you like to sing? Do you like to sing with your friends? In this course we'll sing fun songs with great melodies, harmonies, and fascinating rhythms! We'll have a chance to present a mini-concert.

**Painting Techniques**  
Painting can be rewarding, challenging, and fun! Join your fellow aspiring artists in learning painting techniques and forms of painting. As an artist, you will learn how to express your ideas through a powerful, visual language.

**Yoga**  
The practice of yoga makes the body strong and flexible. Learn about the history of yoga and how it originated and has changed over the years. In this class, you will learn yoga poses to tone the whole body, strengthen muscles, improve posture, and increase your energy. Play fun, interactive games that incorporate yoga poses.

**Soccer**  
GOAL! Soccer is a staple in many countries around the world, testing players on their coordination, speed, strategy, and team play. The excitement and preparation for the World Cup alone puts people all over the world abuzz. We will be outside to practice techniques and strategies, skills and drills, and learn the rules of the game. This sport helps players increase coordination, agility, and endurance.

**Disc Olympics**  
Prepare for the ultimate showdown of disc sports! You will design and play some of the many games that involve discs: disc golf challenges, ultimate Frisbee, and other challenging games. During Disc Olympics, you will learn proper techniques for throwing, catching, and aiming discs. At the end of the three weeks we will have a day of challenges, tricks, and the ultimate Disc Olympics showdown!

**Gr. 3-4**  
**Scientists courses:**  
**Ninja Physics**  
Do you find yourself calculating how to jump, roll, or climb over obstacles? Do you love parkour, martial arts, or American Ninja Warrior? Join us as we examine the physics behind human motion. Find out how to choose the best angle, velocity, and
placement for various movements. Be prepared to both calculate and demonstrate throughout this interactive class. Hi-ya!

**Jr. Vets: Pet Care and First Aid**
Do you love animals? Are you thinking about becoming a veterinarian? Students will explore the characteristics and behaviors of dogs, cats, and other pets. They will learn about and practice giving emergency first aid as well as preventative care: how to identify and prevent food poisoning, and many other techniques used by animal health professionals. Students may be exposed to a trained, gentle dog or cat as part of the course activities. Students who are allergic to or are afraid of dogs and cats (and other popular pets) are discouraged from enrolling in this course.

**High Tech Minerals**
Ever wonder where they find the minerals used to make cell phones? Or cars? This course will show you how minerals found deep within the Earth become skyscrapers, cars, computers, and other objects. Explore the mining process, how mineral availability affects production, and how we manage to cut diamonds, the world's hardest mineral.

**Tech Trailblazer courses:**

**Ruby Programming**
This introductory programming class uses Ruby, a dynamic, open source programming language with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write. You will learn how to write programs that perform simple tasks. You will gain insight into the mind of a computer programmer as well as a basis for further education in software development. Advanced students may create more complex programs or attempt a Ruby on Rails project.

**Tech Innovators**
Your work matters! We challenge you to identify a real-life problem in your world, and then engineer real change! You will identify problems, brainstorm possible solutions, and use the engineering design process to plan, create, and improve your invention, and then present it to potential investors.

**Digital Nonogram Design**
Nonograms, also known as picture crosswords, are picture logic puzzles in which cells in a grid must be colored or left blank according to numbers at the side of the grid to reveal a hidden picture. Come to this class and discover how numbers are a form of discrete tomography and reveal a hidden image in a fun and challenging puzzles! You will be able to design your own colorful nonograms using grid paper and grid software. This is a perfect course for those who wants to bring in their logic thinking ability, analytical ability, and creativity!
Rising Star courses:

Artist's Canvas
Are you a Pollock or a Picasso? Whatever your style, find your inner artist through this class. You will explore the possibilities of realism, representation and abstraction. You will also develop an awareness of and an appreciation for the major movements in painting that are the foundation of contemporary painting. As an artist, you will learn how to express your ideas through a powerful, visual language. You will complete painted works modeled after the style(s) of your choice.

Digital Media Design
How does a video go from idea to the latest BatDad Vine or Star Wars film? Explore how digital media is produced and distributed across different platforms. Work collaboratively and individually on digital media projects. Explore how digital content continues to change how society is informed and entertained.

Write, Compose, Perform
Be prepared to bring your pens, creative minds, and music instinct to this class! You will use your writing skills and creativity to write lyrics and compose music. After that you will be able to perform your music and lyrics through singing, dancing, or playing a musical instrument! Take this course if you love music and dance and want to use your imagination and creativity!

Explorers courses:

Globonauts
Calling all Globonauts! Do children around the world have to go to school? Do you know how other children your age spend their time? Using virtual means, we are going to travel across the continents to investigate how children your age (and adults) live, learn, work, and play. What continent and country would you like to explore?

Clay Masters
We will be working with clay! Create sculptures, pottery, jewelry, and learn about how different cultures use clay. We will be working on coiling to create vessels, creating pinch pots, and ultimately creating small sculptures. This class will be using self-hardening clay to create masterpieces.

Superhero Insects
How do insects perform heroic feats of strength? What tricks or traits could we borrow from insects to become superhuman? You will explore the world of insects to investigate how they do super things every day.

Arts & Recreation courses:

Videogame Design
Make you own original games with a powerful, easy-to-use design tool and a library of hundreds of sprites! In this class, you will use Gamestar Mechanic to design your
own video game. You will go on quests that power up your game design skills and let you earn items you can use to make your own games. No programming skills are required! Bring your creativity and problem-solving skills and come to this recreational and rewarding class!

**Calligraphy and Penmanship**  
Calligraphy has a unique history in art and writing. Calligraphy is a formal form of writing and has been used by knights in castles, authors, artists, and is still used today. In this class you will learn basic calligraphy techniques for writing and art. Learn how to create beautiful line work for handwriting, and create works of art using calligraphy ink.

**Chess**  
This chess course is designed for anyone interested in chess, at any level of skill. By the end of the course, you will demonstrate mastery of rules, strategy, opening analysis, endgames, analysis of a famous game, and variations of chess. You will also be able to analyze chess using standard terminology.

**Disc Olympics**  
Prepare for the ultimate showdown of disc sports! You will design and play some of the many games that involve discs: disc golf challenges, ultimate Frisbee, and other challenging games. During Disc Olympics, you will learn proper techniques for throwing, catching, and aiming discs. At the end of the three weeks we will have a day of challenges, tricks, and the ultimate Disc Olympics showdown!

**Soccer**  
GOAL! Soccer is a staple in many countries around the world, testing players on their coordination, speed, strategy, and team play. The excitement and preparation for the World Cup alone puts people all over the world abuzz. We will be outside to practice techniques and strategies, skills and drills, and learn the rules of the game. This sport helps players increase coordination, agility, and endurance.

**Gr. 5-6** (Note: courses are listed to allow for themed tracks, i.e. the first course in each list is a humanities choice, the second choice is a math/business applications choice, etc.. Students have the option of taking any combination of Course 1, 2, and 3 choices.)

**Period 1 Course choices:**  
**Mysteries, Conspiracies, and Intrigues**  
A course guaranteed to fascinate and challenge both history and mystery lovers alike. Subjects covered include the disappearance of Amelia Earhart, the explosion of the Hindenburg, the “death” of Beatele Paul McCartney, mysterious Stonehenge, the incredible conundrum of Princess Anastasia, the true meaning of the Wizard of Oz, the Bermuda Triangle, the presidential assassinations and so much more. In short, we
will investigate the most fascinating and thought-provoking events of all time. Armed with film, historical artifacts, and a dash of speculation, this course promises to be an entertaining and unique opportunity to study, learn, and enjoy the pursuit of historical truth.

**Human Calculators**
Can you find the cube of a 100 digit numbers? Can you do it without a calculator? How is it possible that a human being can calculate faster than a calculator? In this course, you will learn how mathematical prodigies calculate numbers in their minds. You will also apply the mathematical tips and tricks you have learned to solve real-world problems. Use your analytical and problem-solving skills, you may be the next one to be invited on the Ellen DeGeneres Show or Today Show!

**Biomimetics**
How have we learned from nature to solve engineering problems? From Da Vinci’s flying machine to nanomedicines, society has used the patterns, chemicals, and processes found in nature to help solve our problems. Work collaboratively and individually to explore and apply nature’s solutions as our own.

**If Picasso Went to the Zoo**
What will happen if Picasso went to the zoo? Come to this course and find out how art, history, biology, zoology, alliteration, and poetry can be combined! Purchase of the book *If Picasso Went to the Zoo* will be required.

**Roots of Human Behavior**
What makes the mind work? From motivation to emotion, this course will explore the roots of human action and interaction. Students will explore concepts such as nature vs. nurture and the basics of human psychology.

**Astrophysics**
When you look up at the night sky, do you wish that you had an ultimate telescope that could visualize different types of particles? Embark on a deep dive worthy of Einstein and Hawking, an intergalactic exploration from how stars and galaxies function to the theory of relativity. Discover how we have developed ways to observe the universe from telescopes to the Large Hadron Collider. Work collaboratively and individually to explore strange objects and analyze different types of processes. This course will encompass many advanced topics but will focus on particle physics and quantum mechanics.

**Period 2 Course choices:**
**Building Disney**
One would be hard pressed to find a more influential man than Walt Disney. From humble origins he and his descendants created one of the largest corporations in the world, invented feature-length animated films, won more Oscars than any other
individuals and created an amusement park aptly labeled “The Happiest Place on Earth.” In this course we will trace the rise of this entertainment genius and the incredible success of the Disney brand. With extensive use of film clips and archival photographs we will journey through the Wonderful World of Disney. From Steamboat Willie to Frozen and beyond, to Disney World’s ever-changing landscape and intriguing food menus, to the fascinating plans for future Disney adventures, we will cover it all. Join us on our expedition to the Magical World of Disney.

Credits and Debits
This course will act as an introduction to business and financial accounting. You will learn how to account for various financial transactions and how such information is used in the presentation of the four basic financial statements (profit and loss, balance sheet, cash flows, and owners’ equity). The course will examine how well known corporations manage difficult financial decisions and present information to their owners and stakeholders. Learning activities will place you into real life scenarios that will aid in your understanding of the role of accounting.

Marine Biology
How does the ocean support life? What does the Atlanta Aquarium need to know to properly keep whale sharks? Embark on a virtual tour of aquatic creatures great and small. Work collaboratively and individually to explore and understand how the marine environment functions.

Digital Photography
“Smile!” This course will explore the techniques necessary to successfully take professional-quality photographs. Students will work collaboratively and individually to design, shoot, modify, and critique photographs of a variety of subjects in different settings. Digital cameras will be provided, however students are encouraged to bring their own digital cameras and accessories.

Understanding the Gifted Mind
In this course, you will find intellectual peers who share the same excitement for learning as you do, as well as peers who may have similar challenges as you do in school. This course will help you better understand the academic, social, and emotional lives of gifted students and how you can better advocate for yourself.

Jr. Aviator
Learn about aviation history and the physics that makes modern flight possible. We will investigate aviation concepts, such as center-of-gravity, Bernoulli’s Principle, and Newton’s Laws, aviation occupations, and key historic individuals. Students will explore a variety of aircraft designs, including kites, hot air balloons, dirigibles, gliders, helicopters, planes, and rockets. This course is perfect for students new to aviation or those looking to build on their knowledge.
Period 4 Course choices:

Voyage through Ages
If you think history is boring, think again! This new offering will investigate the most fascinating and thought-provoking events in human history. We will explore the fall of mighty Rome, the rise and impact of the Viking invasion, the Crusades, the Tudors, and the War of the Roses. We will take a look at the founding fathers, the incredible miracle of our victory in the Revolutionary War, the impact of the death of Lincoln and JFK, and the life of King Arthur and the pursuit of the infamous Holy Grail. Join us for an unforgettable journey through the pages of time.

Social Media Marketing
In this course, you will examine the ways in which interactive technologies are changing the rules and processes for customer engagement. You will be exposed to case studies and actual examples of successful, as well as less than optimal, marketing efforts that use such tools. The social media tools to be analyzed include Google, Facebook, LinkedIn, Twitter, Reddit, Instagram, Pinterest, YouTube, 4Square, Tumblr, BlogSpot, and Yelp! The course will introduce you to the above commonly used social media tools in the marketing and business context by critically examining the functionality and technological underpinnings that enhance their utility as marketing devices as well as the risks that might be associated with their use.

Neuroscience
In this class we will explore the mysterious world of Neuroscience. Discover the complex world of the brain, spinal cord, senses, and neurons. Neuroscience labs can be noisy! Crackling occurs from amplified responses of neurons, machines pump, and needles slide across paper recording responses. Be prepared to go in-depth learning about what different sections of the brain are responsible for.

Art in Nature
Can you imagine walking through an art gallery and not seeing any paintings or photographs of flowers, trees, animals or majestic mountains or languid lakes? It's impossible to imagine because nature is reflected in art! Many great works of art and the artists who create them are inspired by the colors, textures, and even the sounds found in nature. In this course, you will create and exhibit nature-inspired art projects.

G&T Debate
Prove you have what it takes to craft and deliver polished responses as part of the Gifted & Talented Debate Team! Verbal communication mastery is a highly valued skill. Work collaboratively and individually to practice your written and verbal communication skills. From doctors and lawyers to parents and politicians, your debating skills will serve you well.

Robots as Problem Solvers
Save the world with robots! This engineering applications course is designed to challenge students to choose a real-world problem to solve and use robots as the focus of the solution. Investigate the problem, then design, model, and build the solution using computer design software and available parts. You will present your solutions, critique each other’s projects, and use the feedback to improve their solutions.

**Arts & Recreation courses:**

**Speaking off the Cuff: Improv**
What does improvisation have to do with public speaking? Everything! Improvisation teaches us how to leverage creativity and already acquired knowledge in how we respond. This class will be rooted in drama techniques. The students will go through basic improvisation exercise and then discover how these are used in everyday life. Activities will include topic specific question games, creating the dialogue in clip of a silenced television show, and any others. In improvisation it is necessary to be aware of your surroundings and figure out how to use what is around you. We cannot wait to see where your imaginations and improvisation skills take you.

**Chess**
This chess course is designed for anyone interested in chess, especially those who are of beginning or intermediate level. Each class period is composed of instruction followed by you playing in open or small tournament games. By the end of the course, you will demonstrate mastery of rules, strategy, opening analysis, endgames, analysis of a famous game, and variations of chess. You will also be able to analyze chess using standard terminology.

**Video Game Design**
Make you own original games with a powerful, easy-to-use design tool and a library of hundreds of sprites! No programming skills are required! In this class, you will use Gamestar Mechanic to design your own video game. You will also have a chance to publish your games and connect with a community of over 250,000 designers whose games have been played over 5 million times! Bring your creativity and problem-solving skills and come to this recreational and rewarding class!

**Pilates**
Need to improve your physical strength? Need to enhance your mental muscles? Need to increase overall flexibility and endurance? Then, you NEED to take this course!

**Soccer**
GOAL! Soccer is a staple in many countries around the world, testing players on their coordination, speed, strategy, and team play. The excitement and preparation for the World Cup alone puts people all over the world abuzz. We will be outside to practice techniques and strategies, skills and drills, and learn the rules of the game. This sport helps players increase coordination, agility, and endurance.
Gr. 7-12 (Note: courses are listed to allow for themed tracks, i.e. the first course in each list is a humanities choice, the second choice is a math/business applications choice, etc.. Students have the option of taking any combination of Course 1, 2, and 3 choices.)

Period 1 Course choices:

**Mysteries, Conspiracies, and Intrigues**
A course guaranteed to fascinate and challenge both history and mystery lovers alike. Subjects covered include the disappearance of Amelia Earhart, the explosion of the Hindenburg, the “death” of Beatle Paul McCartney, mysterious Stonehenge, the incredible conundrum of Princess Anastasia, the true meaning of the Wizard of Oz, the Bermuda Triangle, the presidential assassinations and so much more. In short, we will investigate the most fascinating and thought-provoking events of all time. Armed with film, speculation and actual historical artifacts, this course promises to be an entertaining and unique opportunity to study, learn, and enjoy the pursuit of historical truth.

**Public and Private Accounting**
A career in public and private accounting can be both personally and financially fulfilling. The demand for accountants has been steadily increasing as more and more businesses and corporations require a means to track financial records and make important decisions. You will explore information relevant to the fields of taxation, auditing, and advising with the focus of determining whether a career in public accounting is right for them.

**Anatomy and Physiology**
Do you wonder how our organs work? Have you ever wanted to see a real, mammalian brain? Join us as we work collaboratively to investigate the organs and systems of the human body and what happens to us when things go wrong. You will learn all about bones, muscles and many other interesting anatomical features of the body. Note this course includes the dissection of mammalian organs.

**Ruby Programming**
This introductory programming class uses Ruby, a dynamic, open source programming language with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write. You will learn how to write programs that perform simple tasks. You will gain insight into the mind of a computer programmer as well as a basis for further education in software development. Advanced students may create more complex programs or attempt a Ruby on Rails project.

**SAT Prep (English and Reading)**
Daunted by the SAT? Determined to ace the test? Discover more than 25 test taking strategies as well as exercises to strengthen your critical reading, writing, and vocabulary skills. Let us provide you with all the tools you need to foster success.

**Period 2 Course choices:**

**WoW! Literacy Theories**
In an applied way, using a range of primary texts, students will be introduced to some of the critical methods used in the field of literary studies. Students will use these methods to transform their understanding of multiple and varied texts (from Shakespeare to Solzhenitsyn, from Hitchcock to Rowling). This is a pre-college prep course.

**Big Data**
Do you want to understand big data and how it will impact your life? The recent explosion of social media and the computerization of every aspect of economic activity resulted in creation of large volumes of mostly unstructured data: web logs, videos, speech recordings, photographs, e-mails, Tweets, and similar. This course introduces you to several key IT technologies that you will be able to use to manipulate, store, and analyze big data. You will look at the basic tools for statistical analysis, R and Python, and a few key methods used in Machine Learning. Previous programming experience is not required! By following along with provided code, you will experience how one can perform predictive modeling and leverage graph analytics to model problems.

**Bioengineering**
Humans have looked at nature for answers to problems throughout our existence. Nature has found ways to solve problems such as self-healing, environmental tolerance and resistance, as well as harnessing solar energy. We will be investigating and analyzing how systems in nature have been adapted to solving issues and problems in medicine, technology to make everyday life easier. You will plan for and design a prototype biomimetic device.

**Digital Animation**
Do you love Disney, Pixar, and DreamWorks animations and wonder how these amazing animations are made? In this class, you will learn to model, texture objects, compose and light scenes, animate, and add dynamics, as well as to render your animations into movies and to composite movies, audio, titles, and credits in post-production. By the end of the class, you will have your own original portfolio-ready animation.

**SAT Prep (Math)**
Daunted by the SAT? Determined to ace the test? Discover more than 25 test taking strategies as well as exercises to strengthen your pre-algebra, elementary arithmetic,
algebra and geometry skills. Let us provide you with all the tools you need to foster success.

**Period 6 Course choices:**

**Current Controversies**
Yesterday is history. Events we are reading or hearing about right now is also history. Have you ever heard a news story on the radio or read a news piece online and wondered why it was important? We will be discussing current events including the Electoral College, gay rights, controversial innovations in Silicon Valley, and many more controversial topics. In combination we will research to see if these events are tied to previous events in history. We will be writing, researching, and discussing current news topics in this class. Topics will focus on current events in science, the arts, and global affairs.

**Predictive Analytics**
Statistical experiment design and analytics are at the heart of data science. In this course you will design statistical experiments and analyze the results using modern methods. You will also explore the common pitfalls in interpreting statistical arguments, especially those associated with big data. Collectively, this course will help you internalize a core set of practical and effective machine learning methods and concepts, and apply them to solve some real world problems including but not limited to forecasting weathers and predicting economic trends.

**Surgical Techniques and Technologies**
"Scalpel, please!" Surgeons are regularly innovating new techniques for accessing different parts of the body. Work collaboratively and individually to explore and apply surgical techniques. Note, this course will include the viewing of surgery videos and the hands-on application of techniques on non-human items such as sheep organs.

**Wearable Technology**
How does a Fitbit work? What makes a dress shirt resist stains? The ability to wear technology has quickly expanded, especially over the past decade. This course will challenge students to investigate a variety of technologically advanced clothing and accessories. The final project will involve students designing and developing the marketing plan for their own wearable invention.

**WoW! Your Own Personal Statement**
Your personal statement is your opportunity to sell yourself in the college application process. Come to this class and learn about what questions to ask yourself before you write. Learn about how to answer the questions that are asked, how to tell a story, how to be specific, how to find an angle, and how to write well and correctly. Our experts will guide you through the writing process. By the end of the class, you will have an AWESOME personal statement that will help you shine in the application process!
Arts & Recreation choices:

G&T Debate
Prove you have what it takes to craft and deliver polished responses as part of the Gifted & Talented Debate Team! Verbal communication mastery is a highly valued skill. Work collaboratively and individually to practice your written and verbal communication skills. From doctors and lawyers to parents and politicians, your debating skills will serve you well.

App Development
Develop your own app! Students will explore how to develop an HTML5 app using Adobe PhoneGap. Investigate the logic and functions necessary to design and build your app. Students will be encouraged to create apps that either accomplish goals in other courses, i.e. Social Justice Statistics, or help to either educate the user about or directly solve a real-world problem. Students and their parents are responsible for posting the app for review and public release if they choose to do so.

Treehouse Architecture
Have you ever dreamed of living in a treehouse - or even designing one of your own? During this course you will explore many amazing treehouses around the world. Learn the basics of architectural design, then work in the natural environment to engage in the design of your own private "retreat" in the trees.

Badminton
Badminton is an Olympic sport where players hone their skills serving, scoring, and positioning on court. We will learn the rules of the sport and practicing racket movements. This sport helps players increase stamina, agility, strength, and work on motor coordination. We will practice swings, learn about the different equipment, and learn different strategies of the game.

Contemporary Dance
That dance looks so easy! Do you have what it takes to dance like a star? We will be working on movement and learning the dance moves in current pop music. We will go through movement, focus on exaggeration, facial expressions, and learn how the pop-stars pull it all together! Come learn how to Tone Up, Get Fit, and Be Active. Pop dance is all about fun and enjoyment. This class will be fast paced, so be prepared to move!

Online Courses (Gr.4-8)
Chemistry of Food
Do you see your kitchen as your lab? Explore the chemical reactions necessary for us to enjoy our food. Discover at the molecular level what occurs when dough expands or a sauce thickens. Successful students are those who enjoy finding patterns in data, who are observant and inquisitive, who are not afraid to actively contribute to scholarly
discussions among peers, who have a strong command of written and verbal English, and who possess a sustained motivation to complete tasks on time. This course includes one hour of online discussion per day, three times a week over the course of each 3 week session, so students will need Internet access to communicate via the Canvas learning management system.

The Architectural Experience
This conceptual architecture course is designed to enrich and extend the focus on introducing students to architectural patterns and techniques through activities, photos, and videos. Students may need to use common household items such as rulers, straws, and cardboard to complete their own architectural models. This course will address CCSS Math 5.MD.C.3 through C.5, 5.G.B.3, 5.G.B.4, and 6.G.A.4, and NAEA Visual Arts Standards VA:Cn11.1.4a through 1.7a, VA:Re9.1.4a, VA:Re7.2.5a, VA:Re7.1.6a through 1.8a. Successful students are those who enjoy finding patterns in data, who are observant and inquisitive, who are not afraid to actively contribute to scholarly discussions among peers, who have a strong command of written and verbal English, and who possess a sustained motivation to complete tasks on time. This course includes one hour of online discussion per week over the course of the nine-week session, so students will need Internet access to communicate via the Canvas learning management system.

Biodiversity
This conceptual life science course is designed to enrich and extend the NGSS life science standards by exploring biomes through the lens of ecosystem operation. Specific species such as the whale shark will be introduced each week to highlight the importance of biodiversity to support the local ecosystem. Students will be challenged to consider how energy flows through an ecosystem’s food web and discuss environmental factors that could affect ecosystem operation. This course will address NGSS Life Science Standards 3-LS4-2 through 4-4, 5-LS2-1, MS-LS1-4 and 1-5, MS-LS2-1 through 2-5. Successful students are those who enjoy finding patterns in data, who are observant and inquisitive, who are not afraid to actively contribute to scholarly discussions among peers, who have a strong command of written and verbal English, and who possess a sustained motivation to complete tasks on time. This course includes one hour of online discussion per week over the course of the nine-week session, so students will need Internet access to communicate via the Canvas learning management system.

Python Programming
No, this course has nothing to do with snakes! Python is an advanced, multi-paradigm programming language that tends to be more versatile than C++ or Java. Students will work collaboratively and individually to create their own animations, games, tools, or anything else they can think of in a fun and interactive environment. Students will gain insight into the mind of a computer programmer as well as a basis for further education in software development. This course includes one hour of online discussion per day,
three times a week over the course of each 3 week session, so students will need Internet access to communicate via the Canvas learning management system.