

Challenge Camp



A Summer of Fun and Learning, too!

This is our Challenge Camp class schedule for Summer 2025. The schedule is subject to change for compliance with State and County Health Department guidelines.

- 1) **A full day of camp consists of 5 classes and is from 9am – 4pm.** Morning Workshops are 90 minutes (9:00 and 10:30), and Afternoon Classes 60 minutes (1:00, 2:00 & 3:00) are a mixture of sports and enrichment options as campers are encouraged to challenge both their minds and bodies.
- 2) We use camper's **CURRENT GRADE as of September 2024** for class selection.
- 3) There are over 140 STEM & Arts Enrichment Options for you to customize a schedule based on your child's interests. Everything at Challenge Camp is elective, your camper takes the classes you select for the entire 4 week or 3 week session.
- 4) Certain courses may have a materials fee listed. These are typically for class kits or materials used in camper projects.
- 5) If you need assistance or have any questions, please email info@challengecamps.com or call the camp office on 914-779-6024.

Challenge Camp – Summer 2025

1) Science Magic **Session 1** **9:00** **Grades K-1**
Instructor: Michael Donovan **10:30** **Grades 2-3**

Get ready for a wondrous experience as we discover the magic of science through amazing hands-on experiments! Explore scientific principles as we create a fire tornado, put an egg inside a jar without touching it, make a candle suck up water, create glow-in-the-dark slime, make elephant toothpaste, explode a watermelon with rubber bands and more! Little scientists will learn how to think creatively, problem solve and draw conclusions independently through magical experiments they can touch, see, and feel.

2) How Things Work **Session 2** **9:00** **Grades K-1**
Instructor: Michael Donovan **10:30** **Grades 2-3**

We all wonder how important inventions and objects all around us seem to work. Join us as young inventors and curious thinkers explore the secrets behind everyday engineering! What are the mechanisms involved in a combination lock or a bicycle? Why does a magnet attract and how is a battery like your very own micro power plant? How does a piano, zipper, and all of that sunscreen that our parents make us wear actually work? Campers will be introduced to concepts like force, motion, energy, and mechanics in a way that's practical and fun. We'll even play "Junk in the Box", where your goal is to create an engineering marvel out of your team's box of random materials. You will test, experiment, innovate, invent and present to the class exactly how your invention "works."

3) Curious Creators **Session 1** **9:00** **Grades 2-3**
Instructor: Tamara Vazquez **10:30** **Grades K-1**

Get ready to build, create, and explore! This hands-on class combines the best of art and engineering, giving campers the opportunity to bring their wildest ideas to life. Campers will explore landscape architecture models and create models of their favorite places in the world including the study of various buildings including gardens, pond, town square and playground. Explore simple mechanics by creating moving parts and gadgets to build bridges, towers, and other exciting structures using recycled materials. Practice teamwork and critical thinking to solve fun engineering challenges. This class is perfect for young inventors and artists who want to create something extraordinary.

4) Art of Science **Session 2** **9:00** **Grades 2-3**
Instructor: Tamara Vazquez **10:30** **Grades K-1**

Calling mad scientists to create artistic masterpieces! Campers will have great fun creating imaginative works of art while exploring fascinating scientific concepts. We will make creations that ooze, fizz, drip, and spin by investigating topics such as gravity, density, cohesion, centrifuge and viscosity. Make nebulae out of glue, grow beautiful crystals, capture rainbows on paper, use flowers to make paint, create your own tie dye with Sharpie markers and more! This class will engage and inspire young artists to develop a lifelong interest in the amazing world of science. Grab your lab coat and your smock and join us!

5) Nature's Palette
Instructor: Erica Soto

Session 1 9:00 Grades K-1

Discover the beauty of nature through art! This enchanting art class invites young children to explore the beauty of the natural world through hands-on, nature-inspired art projects. Campers will connect with the vibrant colors of the environment while using natural materials and themes to create unique masterpieces.

6) Paint & Create
Instructor: Erica Soto

Session 1 10:30 Grades K-1

Let your creativity flow with brushes and paint! In this hands-on class, young artists will experiment with colors, shapes, and textures while creating masterpieces they will be proud to share. With step-by-step guidance and self-expression, campers will leave with a smile—and a canvas!

7) Art on the Move
Instructor: Linda Andrews

Session 2 9:00 Grades K-1

This energetic and imaginative class combines art and movement to engage young campers in self-expression and fun. Perfect for active and creative children, each session blends physical activities with hands-on art projects inspired by the joy of movement. We will begin each class with a themed dance such as "Hawaiian Luau" or "Animal Safari" and then create an art piece related to our dance using clay, colored pencils, cut paper and more.

8) Splash of Color
Instructor: Erica Soto

Session 2 10:30 Grades K-1

Celebrate summer with art projects inspired by sunshine, swimming, ice cream, and all things summer! Campers will create playful and colorful crafts that capture the joy of the season. Perfect for little hands ready to dive into the world of art and imagination.

9) Dino Detectives
Instructor: Al Pearlman

Session 1 9:00 Grades K-2
10:30 Grades K-2

Journey back in time to the age of dinosaurs in this fun and interactive class! Our paleontologists will discover fascinating facts about different dinosaur species, learn how fossils are formed, and explore the world they lived in millions of years ago. Through hands-on activities like fossil digging, dinosaur crafts, and creating their own dino dioramas, campers will ignite their imaginations while building knowledge about these incredible creatures. Perfect for curious minds and dinosaur enthusiasts, this class is a roaring good time!

10) DNAmazing
Instructor: Al Pearlman

Session 2 **9:00** **Grades 2-3**
10:30 **Grades K-1**

Why do you look like your Mom or Dad? Discover your genetic code through exciting hands-on investigation. Your biotech lab will lead you to uncover the blueprints of life. Experiment with a tomato to extract and play with its ooey, gooey DNA. Construct, split and replicate a DNA ladder. Grow germs and make them glow a brilliant florescent green. Create a family tree and see what traits you share. Assemble DNA models out of candy (yum!). Learn how Mendel discovered traits with pea plants. Analyze DNA evidence to solve a crime. Understand the mysteries of these and other fascinating elements of genetics and how DNA is the building block of all of us.

11) LEGO Tech Junior
Instructor: Reuben Bridges

Session 1 & 2 **9:00** **Grades K-2**

Use Legos as the inspiration to construct, investigate and communicate like little Einsteins. This interactive and educational course introduces young minds to basic scientific and engineering principles through the fun of LEGO. Students will use models to predict, observe, measure, and collect data, experiencing forces, motion, energy, mechanisms, and magnetism firsthand. They will develop complex problem-solving skills and understand the interaction between forces and motion, measurement, energy, speed (velocity) and weight (mass). Campers will construct and experiment with models of simple machines - levers, pulleys, and gears, learning how these fundamental mechanisms make our daily lives easier.

* **Lego Fee: \$25**

12) LEGO Tech
Instructor: Reuben Bridges

Session 1 & 2 **10:30** **Grades 2-4**

Are you curious about how things work? Discover the power of engineering with Lego's Simple and Motorized Mechanisms. This course is designed to give campers an understanding of machines, mechanisms, structures, and mechanical advantage. Campers will use LEGO to build dynamic models that showcase how renewable energy sources like wind, water and solar power can be harnessed. We will investigate energy supply, transfer, accumulation, conversion and consumption through activities and building exciting real-life models. Campers will explore scientific principles and engineering concepts by creating motorized LEGO machines, gaining an understanding of how these technologies can lead to a more sustainable future.

* **Lego Fee: \$25**

13) The Illusionist
Instructor: Joseph Fields

Session 1 & 2 **10:30** **Grades 1-4**

Have you ever wanted to make a coin disappear, read someone's mind, make solid objects pass through each other or cause a rope cut in two to magically restore itself? Learn how to do this and much more by joining renowned magician Joseph Fields to uncover magic's biggest secrets, fool your friends and be the life of the party. The delightful art of balloon sculpture will also be taught. Transform yourself into an illusionist with a personalized magic briefcase full of tricks!

* **Magic Fee: \$40**

14) Checkmate
Instructor: Chris O'Keefe

Session 1 & 2 9:00 Grades K-2
Session 1 & 2 10:30 Grades 1-4

Embark on a journey of strategy and critical thinking in the exciting world of chess. Chess enables children to develop and enhance their skills in discipline, concentration, and patience. Campers will learn fundamental opening, middlegame, and endgame strategies and how to achieve a proper coordination of pieces. Through interactive lessons focused on lecture, discussion and practice games, children will develop problem-solving skills, patience, pattern recognition, and sportsmanship. Chess notation will be taught in order to review games. This class is perfect for building a strong foundation in chess, setting the stage for future growth and enjoyment in this classic game of skill and intellect.

15) Konnichiwa – Introduction to Japan
Instructor: Gen Katano

Session 1 9:00 Grades K-2

Embark on an exciting journey to Japan in this interactive class. Through fun activities, games, and hands-on projects, students will learn basic Japanese phrases, numbers, and greetings while exploring the rich and fascinating culture of Japan. We will learn origami, write in calligraphy (kanji) and make mini-Zen gardens as we learn about celebrations, festivals and traditions through stories and crafts.

16) Pixicade Game Maker
Instructor: STEM STAFF

Session 2 9:00 Grades 2-3
10:30 Grades K-1

Have you ever wanted to create your own video game? Do you like to doodle or draw? In this class you will learn how to make your very own video games using Pixicade! All you need to do is draw, then watch your doodles magically come to life as playable games. Campers will learn to use the exciting new Pixicade App and all its editing and Power-Up features! This exciting class will teach campers game mechanics and concepts through STEAM and literacy exploration and mini drawing lessons. At the end of the session campers will have a collection of games they created from the stories, characters, goals, worlds, hazards, and game challenges developed in class.

* **Pixicade Kit Fee: \$30**

17) Willy Wonka
Artistic Director: Anne Pasquale
Musical Director: Regina Talbot

Session 1 9:00 Grades 1-4
10:30 Grades 4-9

Enter the whimsical world of Willy Wonka and bring the magic of his chocolate factory to life in this fun and creative theater class. Performers will explore acting, singing, and storytelling as they recreate iconic scenes and characters from *Charlie and the Chocolate Factory*. Through engaging activities, students will learn stage presence, character development, and teamwork while letting their imaginations run wild. The class culminates in a magical performance where the campers share their own "scrumdiddlyumptious" spin on this timeless tale. Perfect for aspiring actors and dreamers alike, this class is a golden ticket to creativity and fun!

* **Script, score, costume and materials fee: \$50**

18) Cinderella
Artistic Director: Anne Pasquale

Session 2 **9:00** **Grades 1-4**
10:30 **Grades 4-9**

Step into the enchanting world of Cinderella as performers bring this classic fairy tale to life. Campers will learn acting, singing, and storytelling skills as they recreate the magic of Cinderella's journey from the ashes to the royal ball. Develop confidence, teamwork, and creativity while playing beloved characters like the Fairy Godmother, the Prince, and the wicked stepsisters. The class concludes with a sparkling performance where the children showcase their talents and charm an audience with their own happily-ever-after story. It's a dream come true for aspiring actors and princesses alike!

*** Script, score, costume and materials fee: \$50**

19) Architecture and Design with 3Dux
Instructor: Jason Pritchett

Session 1 **9:00** **Grades 2-4**
10:30 **Grades K-2**

Join us in this illuminating architecture and design class, where creativity meets construction! Using a 3Dux Design kit created for Challenge Camp, campers will focus on model design, building, problem solving, and spatial thinking to build modern structures with simple machines. You can construct kooky characters, mini bots using basic motors, a tiny house or zoo with pulleys and levers or a sustainable community using wind turbines and solar power. Older campers will learn basic electrical engineering and circuitry concepts as we light up our projects. Designers will unleash their imagination balancing form and function in this building bonanza of imagination. The possibilities are endless!

*** Architecture Kit Fee: \$50**

20) Art Meets Minecraft: Creative Worlds
Instructor: Jason Pritchett

Session 2 **9:00** **Grades 1-3**
10:30 **Grades 1-3**

Step into a world where imagination knows no limits! In this unique class, artists will first explore traditional techniques—drawing, painting, and sculpting—to create vibrant, colorful works inspired by their dreams, favorite places, and big imaginations. But here's the twist: we will then bring those masterpieces to life in Minecraft Education! Campers will transform their artistic visions into digital adventures, designing and building their creations in the immersive world of Minecraft. From whimsical castles and enchanted forests to undersea cities and space adventures, every artwork can become a world to explore! Then campers will share their creations, collaborate with friends, and explore one another's unique worlds. This class blends creativity, technology, and fun—empowering campers to see their art in an entirely new way!

21) Around the World
Instructor: Rathi Gulati

Session 1 **9:00** **Grades 2-4**
10:30 **Grades K-2**

Travel around all seven continents in one camp session! The trips are planned, and your tickets have been purchased, but where in the world are you going? Follow the clues on our map to help us get to our destination. You will make your own passport and board a plane to explore each country as you solve the riddles that lead you to them. At each destination you will sample the food, listen to the music, play the games, enjoy the stories, create the art and celebrate the holidays of that country. If you have always wondered about life in faraway lands, then pack your bags as we take a memorable trip around the world!

Passport Fee: \$25

22) Minecraft City Builders
Instructor: Christina Murphy

Session 1 9:00 Grades 1-3
Session 1 & 2 10:30 Grades 1-3

How are cities planned? Who decides what a building looks like and where it should go? What role do parks and other public spaces play in a city? What are the integral components of cities that they need to function? Campers will plan, design and build a city using Minecraft Education edition! Minecraft will be used to enhance creativity, problem-solving, self-direction, and collaboration skills.

23) Little Fashionistas
Instructor: Linda Andrews

Session 1 9:00 Grades 2-4

Welcome to 'Little Fashionistas', a dazzling fashion class where campers can unleash their creativity and style and learn how to sew in the process. In this exciting course, young designers will learn the basics of fashion design, from sketching and color theory to fabric selection and accessory creation. Through hands-on projects and inspiring activities, they will bring their own fashion ideas to life. Cutting and pinning fabric, threading a needle and tying a knot, and learning different sewing skills will result in the creation of their very own accessory pieces. This class encourages creativity and self-expression while giving budding fashionistas a taste of the glamorous world of fashion design.

*** Fashion Fee: \$40**

24) Sew Cool
Instructor: Christel Araujo

Session 2 10:30 Grades 2-4

Discover the joy of sewing and unleash your inner designer. Campers will learn the basics of sewing, including how to thread a needle, make simple stitches, and use patterns to create their own unique projects. We will explore fashion design by choosing fabrics, colors, and styles to bring their ideas to life. From crafting accessories like tote bags and headbands to designing their first piece of clothing, this class is perfect for aspiring fashionistas and creative thinkers. Campers will build confidence, develop new skills, and create wearable works of art that debut at our class fashion show.

*** Fashion Fee: \$30**

25) Photo Finish
Instructor: Liz Steger-Hartzman

Session 1 10:30 Grades 3-9
Session 2 9:00 Grades 3-9

This exciting class will teach the fundamentals of basic digital photography to capture images throughout the camp or home setting. Campers are required to have a fully charged digital camera or cell phone camera. Each day, Liz will teach you all you need to know to develop your photographic eye. Class time will be spent learning technique, shooting pictures and creating your portfolio for weekly contests. Each camper will receive a personal printed portfolio featuring their outstanding work.

26) Fun with Photoshop**Instructor: Liz Steger-Hartzman****Session 1 9:00 Grades 5-9****Session 2 10:30 Grades 5-9**

Have you ever wondered how funny pictures are made? Have you seen a cat's head looking natural on a person's body? What about the imperfect photo made perfect? In this class you will learn about all of the tools to enhance your pictures and make fun photos. Topics include basic image editing, transformation, retouching, enhancement, and compositing taught by a professional photographer. Campers will work on their own portfolios and participate in group projects. We will be working in Photoshop CC and students participating in Photo Finish will learn advanced techniques.

*** Photoshop Fee: \$50**

27) Junior Entrepreneur**Instructor: Sid Jain****Session 1 9:00 Grades 3-5****10:30 Grades 5-9**

Have you ever wanted to run your own small business and make your own design, plan, price and sales decisions? Campers will enter the "shark tank" and become entrepreneurs building an idea from scratch and ending with a business plan. You will generate a product or service and decide how to market and advertise. After honing your analytical, logical and communication skills, you will be able to confidently present your plan to "investors" from Wall Street and raise play-money. Learning practical and operational aspects of the stock market, campers will determine the most viable businesses. With engaging activities, real-world examples, and mentorship, this class empowers young minds to think big and take initiative.

28) Swiftie Studio**Instructor: Diana Capasso****Session 1 9:00 Grades 2-4****10:30 Grades 4-6**

Step into the colorful, creative world of Taylor Swift's eras through this fun and interactive art class! Whether you are a fan of her country roots, enchanted by her whimsical Lover era, or drawn to the dark and moody vibes of Reputation, this workshop is designed to celebrate every chapter of her iconic journey. This is your ultimate creative outlet, enjoy a playlist of greatest hits while we work, setting the perfect vibe. Bring your love of Taylor's music, art, and community to create your own masterpieces using vibrant colors and symbols inspired by her albums.

29) Platform 9 3/4**Instructor: Diana Capasso****Session 2 9:00 Grades 4-6****10:30 Grades 2-4**

Calling all wizards, muggles, witches, and more! You have been accepted into Hogwarts School of Witchcraft and Wizardry. Before you can sit for your O.W.L. exams, you must create your own owl, snitch, wand, and master the potion required to create "butterbeer." Young witches and wizards will create spellbinding art projects inspired by the beloved series, exploring their creativity while immersing themselves in the magic of Hogwarts.

30) Edison Robotics**Session 2 9:00 Grades 2-4****Instructor: Christina Murphy**

Enter the world of robotics and coding with Edison Robotics. The Edison robot is a powerful, engaging tool for teaching children computational thinking and computer programming in a hands-on way. Campers can immerse themselves in a variety of STEM and engineering projects as they learn to build and invent. Using the EdBlocks and EdScratch software, these programmable robots will open up the world of coding and bring computer science to life. Students will take home their kit to continue exploring with Edison.

*** Robot fee: \$75****31) Dash Robotics****Session 1 9:00 Grades 4-5****Instructor: STEM Staff****10:30 Grades 2-4**

Woohoo! Meet Dash, an innovative robot that will make learning to code fun. Responding to voice, navigating objects, dancing, and singing, Dash is the robot you always dreamed of having. Campers will use Wonder, Blockly, and other apps to create new behaviors for Dash from navigate mazes, to respond to voice commands, and even dance - doing more with robotics than ever possible. Each class is packed with fun and educational activities that not only teach the fundamentals of programming logic but also encourage problem-solving, creativity, and teamwork. Let Dash open a canvas for exploration and collaboration by unleashing your creativity as you program Dash to greet you, deliver a message to a friend, follow you on a journey, and become a true partner in fun.

*** Robot Fee: \$175****32) Dreamboard Designs****Session 2 9:00 Grades 3-6****Instructor: Erica Soto**

This class empowers campers to visualize their goals through creative Vision Board projects. Using a mix of collage, drawing, and personal inspiration, campers will create unique artworks that reflect their personality and aspirations. This class is perfect for nurturing creativity, self-expression, and goal-setting skills in a fun, supportive environment. Dream it, design it, create it!

33) The Restaurant Project**Session 2 9:00 Grades 3-5****Instructor: Rachel Schultz****10:30 Grades 5-9**

In this creative course, campers will dive into the world of hospitality and discover what it takes to turn a delicious idea into a thriving business by designing and building their own restaurant concept! They will learn how to develop a restaurant concept, menu planning, and décor. We will create branding and promotional marketing materials. Whether you're a future chef, entrepreneur, or creative thinker, this class offers a fun and inspiring way to explore the business side of food and an appreciation for the art of hospitality while building teamwork, communication, and innovation skills.

34) Architectural Marvels**Session 1 9:00 Grades 4-9****Instructor: Ana Saura**

Travel the world and discover the most amazing buildings and structures ever created. Young artists will explore the Wonders of the World, from ancient pyramids in Egypt to the Colosseum in Italy, Eiffel Tower in France, Great Wall in China, Taj Mahal in India and others. Campers will discuss the artistic purpose, ratio, proportion, design, engineering and construction of the wonders before deciding to build our own interpretation. All architectural projects will respect, honor and celebrate our planet's architectural and cultural diversity.

35) Graffiti Art**Session 1 10:30 Grades 4-9****Instructor: Ana Saura**

Explore the vibrant world of street art using bold colors and playful shapes inspired by artist Keith Haring, whose lively creations lit up the New York street art scene! Campers will learn his iconic painting techniques and discover his playful style while expressing themselves through their own meaningful and joyful street art.

36) Mixed Media Madness**Session 2 9:00 Grades 4-9****Instructor: Ana Saura**

An art palette is full of life-red roads, blue whispers and yellow yells! This dynamic class is perfect for artists who want to break away from traditional painting techniques and experiment with combining different colors, materials, textures, and styles. Campers will learn to use perspective and depth to create collages, landscapes and panoramic paintings in a modern style. Using acrylics, pencil, plaster, foam board, paper and more, students will learn how to blend various mediums to create unique, multi-dimensional and colorful works of art

37) MOMA Painting - Surrealism**Session 2 10:30 Grades 4-9****Instructor: Ana Saura**

Surrealism is about exploring the subconscious mind using dreams, imagination, and emotions as inspiration for artwork. In this captivating painting class, you will learn the history and techniques of surrealism, exploring how masters like Salvador Dali and Rene Magritte use symbolism, distortion, and fantastical imagery to create their paintings. Escape reality with an anything is possible art experience will inspire you to paint your own mind-bending masterpieces!

38) Code Central: Scratch Game Creators**Session 1 & 2 9:00 Grades 3-6****Instructor: Neil Grand**

Learn coding basics while having fun creating games and animation using the online program known as Scratch. Campers will learn to develop algorithms, use variables, loops and control structures (if/then logic) to create a multi-media experience. Scratch is a drag and drop website which makes programming easy, fun and painless. Campers will create games such as Flappy Birds, Space Invaders, Shoot 'em, Pong, Maze and other games of their own imagination. Your games will have obstacles, dragons, special ghosting and color effects, timers and scoring. Campers will also make beautiful, animated art like whirling spirals, planets circling around the sun in the solar system, and spin art.

39) Escape Room
Instructor: Jennifer Walford

Session 1 **9:00** **Grades 4-9**
10:30 **Grades 4-9**

Unlock the mystery in our escape room class, a unique and exhilarating course designed for campers to search for clues and solve several kinds of puzzles and riddles to plot their great escape. This class blends puzzle-solving, teamwork, and critical thinking, as students work together to solve challenging scenarios and 'escape' from various themed rooms. One of the themes for this summer will be Escape Rooms with a Medieval twist. Campers will research various topics on Medieval life and design a unique escape room experience for their fellow classmates! It is a perfect blend of education and adventure, encouraging students to think creatively and work effectively under pressure... assuming they ever make it out!

40) Digital Film Academy
Instructor: Donell Clark

Session 1 **9:00** **Grades 6-9**
10:30 **Grades 4-5**

Step into the world of filmmaking and bring your creative vision to life in this interactive, digital movie-making course. Students will immerse themselves in every stage of the production process, working alongside a professional director to craft an original short film. From brainstorming story ideas and costume design to scouting locations, writing the script, acting, shooting, and editing, campers will collaborate as a team to create a polished, high-quality film. Along the way, they'll gain valuable skills in digital media and learn how to navigate technology responsibly, becoming savvy digital citizens. Get ready for the red carpet premiere—your film debut is just around the corner!

* **Film Fee: \$60**

41) The Illusionist 2
Instructor: Joseph Fields

Session 1 & 2 **9:00** **Grades 4-9**

Would you like to perform like Criss Angel, David Blaine, and David Copperfield? If you would, this is your chance to discover the magic secrets that these and many other professionals use to baffle audiences worldwide. Join Joseph Fields this summer and learn the secrets, the sleight of hand and the proverbial tricks of the trade that helped make these professionals famous. Imagination, individuality and creativity will be encouraged to develop a personal magical act with polished showmanship. Extraordinary and advanced balloon sculpture techniques will be learned! Advanced magical secrets of illusion, levitation and sleight-of-hand will highlight this course as well as presentation and performance before an audience. Enhance your skills and transform yourself into a master illusionist with your personalized magic briefcase full of tricks.

* **Magic Fee: \$50**

42) Castles and Catapults
Instructor: STEM Staff

Session 2 **9:00** **Grades 1-3**
10:30 **Grades 3-5**

Travel back to the Middle Ages and discover the fascinating world of medieval art and engineering! Creators will explore the artistry behind illuminated manuscripts, stained glass, and castle architecture, while learning about the ingenious engineering behind catapults, drawbridges, and towers. Through hands on projects, students will design their own castles, create medieval-inspired art, and build working models of medieval machines. This class combines creativity, history, and problem-solving for a unique and exciting journey into the past. Perfect for curious minds and budding inventors!

43) Adventures in the Lab
Instructor: Natalia Potter

Session 1 **9:00** **Grades 3-5**
10:30 **Grades 5-9**

Are you fascinated by science? Embark on an exciting journey of discovery in this dynamic science class where we will perform hands-on experiments. We will learn about different chemical compounds, conduct demonstrations to observe different chemical principles, and make science come alive. In this immersive course, young scientists will explore a variety of scientific fields, from chemistry and biology to physics and earth sciences, through engaging and interactive experiments. Each day in the lab is an adventure, as students conduct experiments, analyze results, and learn to think like real scientists. This class not only deepens their scientific knowledge but also fosters critical thinking, curiosity, and a lifelong love for learning and exploration.

44) Atoms, Beakers & Bonds
Instructor: Natalia Potter

Session 2 **9:00** **Grades 3-5**
10:30 **Grades 5-9**

Experience the exciting world of molecules and reactions in our hands-on BioChemistry class. This dynamic course brings the periodic table to life through interactive experiments and engaging lab activities. Campers will explore fundamental concepts like chemical bonding, reactions, and the properties of different elements, all while conducting safe and supervised experiments that illustrate the principles of chemistry in action. We will learn the cell cycle and cell division by making our own microscopic slides, perform DNA extractions, see osmosis in action and use magnets to test our immune system. This is the perfect environment for young scientists to ignite their curiosity, develop practical lab skills, and gain a deeper appreciation for the science that shapes our world.

45) NASA Mission Control
Instructor: Kimberly Whyte

Session 1 & 2 **9:00** **Grades 5-9**
10:30 **Grades 3-5**

Calling all future astronauts, rocket scientists, and space explorers! In this hands-on adventure, campers will explore the wonders of space, the mysteries of faraway planets, and uncover the secrets of the stars. Using engineering and technology skills, we will build and launch rockets, design lunar rovers and simulate a mission to Mars. This course is packed with experiments, engineering challenges, and out-of-this-world fun. Get ready to shoot for the stars as we discover how amazing Earth is and explore the universe!

46) Da Vinci's Workshop
Instructor: STEM Staff

Session 1 **9:00** **Grades 5-9**
10:30 **Grades 3-5**

Step into the mind of one of history's greatest visionaries. Leonardo da Vinci was a master of both art and engineering, and in this hands-on course, students will explore his incredible legacy through creative projects and innovative problem-solving. We will examine his works of art and explore his unique techniques. Learn about his groundbreaking inventions, and how they shaped the future. Campers will create their own masterpieces inspired by Leonardo's style and experiment with designing and building simple mechanical models. We will develop critical thinking and creativity while blending art, science, and engineering. Through interactive activities and a blend of art and STEM challenges, students will leave with a deeper appreciation for the genius of Da Vinci and the confidence to think like a Renaissance innovator.

*** Da Vinci Engineering Fee: \$50**

47) Challenge Makerspace 2.0**Instructor: Natasha Dooley****Session 2****9:00 Grades 5-9****10:30 Grades 3-5**

Are you eager to create and experiment utilizing engineering principles? Challenge Camp Makerspace combines design, engineering, and problem-solving as campers tackle exciting projects that challenge their imaginations and technical skills. One of the featured projects is designing and building a custom lamp, where campers will learn about circuits, lighting, and design principles to create a functional and unique piece of art. Throughout the course, we will explore various tools and materials, while collaborating with peers in a supportive and innovative environment. This class encourages experimentation, critical thinking, and the joy of making something extraordinary with your own hands. Let's build something amazing together!

*** Makerspace Fee: \$75****48) The Great Debate****Instructor: Ellen Feig****Session 2****9:00 Grades 4-9**

Step into the world of persuasive arguments and critical thinking. In this dynamic and interactive course, campers learn the art of constructing compelling arguments, conducting research, and speaking confidently in public. We will tackle a range of topics, from current events to ethical dilemmas, engaging in spirited debates that hone their reasoning and listening skills. This class promotes oratory prowess and fosters a deeper understanding of diverse perspectives, preparing campers for future academic and personal challenges.

49) Model United Nations**Instructor: Ellen Feig****Session 2****10:30 Grades 5-9**

Dive into the world of diplomacy and international relations with our Model United Nations class. In this class, campers will step into the shoes of UN delegates, learning about global issues, international politics, and the art of negotiation and public speaking. Through simulating UN conferences and debates, we will develop skills in research, diplomacy, and collaboration, while gaining a deeper understanding of world affairs. This enriching experience educates students about the complexities of global governance and empowers them to become informed and active global citizens.

50) Sew What?! Sewing Bootcamp**Instructor: Christel Araujo****Session 2****9:00 Grades 4-9**

Do you dream of becoming a fashion designer? In this class, students will be introduced to the process of creating clothes! Sewing students will learn to draft, pin, and cut a sewing pattern, how to use a home sewing machine and even how to take measurements. Students will complete a final project involving the designing and sewing of shorts, pajama pants, or a reversible tote bag. All items will be personalized to show off each camper's unique style at a fashion show!

*** Fashion Fee: \$50**

51) Bling It Up a Notch**Session 1 10:30 Grades 4-9****Instructor: Linda Andrews**

Focusing on metal stamping and design, this class teaches students how to create beautiful, personalized pieces while learning professional jewelry-making skills. Campers will gain an understanding of tools, materials, and the craftsmanship as we combine stamping with crystals, stones, charms and beads to create jewelry with extra bling. Design and craft unique bracelets, necklaces, and earrings to produce wearable works of art.

*** Jewelry Design Fee: \$40****52) Gelli Printmaking****Session 2 10:30 Grades 3-9****Instructor: Linda Andrews**

Dive into the vibrant and playful world of gelli printmaking. This hands-on course introduces the fun and versatile technique of gelli printing, where campers will use gelatin plates to create unique and colorful prints. They will experiment with textures, patterns, and shapes, learning how to layer colors and forms to produce their own artistic masterpieces.

*** Printmaking Fee: \$30****53) Law & Order****Session 1 9:00 Grades 5-9****Instructor: Ellen Feig****10:30 Grades 3-5**

Learn the basics of the legal system and about how laws shape our world. From figuring out why we have rules to how the legal system works, you'll get to play detective, lawyer, and maybe even a judge! Campers will learn the basics of the legal system through engaging activities like creating their own courtroom, participating in a mock trial, and solving everyday legal puzzles. We will discuss topics like fairness, justice, and why rules matter as we explore real life scenarios. We will explore famous cases, understand our rights, and learn how laws affect everything—from social media to sports. Expect role-playing, lively discussions. Campers will earn a certificate of completion and a mini "law book" they create throughout the class.

54) Drone Flight School**Session 1 10:30 Grades 3-9****Instructor: Drone Cadets****Session 2 9:00 Grades 2-5****Session 2 10:30 Grades 4-9**

Drone Cadets will spark the bright young minds of students of all ages and light up new pathways for further scientific exploration. Drones can be used for delivery, surveillance and security, aerial photography, filmmaking and more! Campers will receive practical, hands-on instruction that gives them the exciting experience of flying a drone through obstacles, while learning the FAA required rules and safety procedures. As their skills progress, they will begin coding autonomous drone flight to promote further STEM learning and provide real-world career insights. Campers will fly and take home their pre-assembled drones.

*** Drone Fee: \$350**

55) Drone Racing Club
Instructor: Drone Cadets

Session 1 9:00 Grades 5-9

Drone Racing is one of the hottest and fastest growing esports. Campers will use a simulator to learn how to fly from a First Person View (FPV) perspective, and practice flying and racing techniques, and compete in our own drone races! We will learn about drone technology as we build microquad drones and transition from flying Line of Sight to FPV which makes you feel like you are in the cockpit! With practice campers will master this advanced flight skill and begin racing in real life. We will address safe and ethical uses of drones and learn to be responsible drone operators and owners. Campers will assemble and keep their own fully functional drone and FPV goggles.

*** Drone Fee: \$550**

56) 3D Printing Lab
Instructor: Frank Cortalano

Session 1 & 2 9:00 Grades 4-9
Session 1 & 2 10:30 Grades 4-9

This course is designed to introduce 3D modeling and printing techniques to beginners. Campers will learn an overview of the components of the printer and how the process works. They will learn how to navigate a variety of 3D design software including the popular TinkerCad, Cura and Meshmixer to develop their own 3D models. In this project-based course the students will learn the possibilities for creativity are endless and will take home a printer and filament to continue inventing.

*** 3D Printer and Filament Fee: \$400**

57) Code Central: Introduction to Java
Instructor: Neil Grand

Session 1 & 2 10:30 Grades 4-9

This course aims to teach the basics of one of the most powerful and widely used programming languages—Java. You will learn about variables, loops, control structures (if/then logic), arrays and how to write classes. Learning to think both algorithmically and creatively, we will use Java to calculate PI, and solve problems – for example, did the Native Americans get a good deal when they sold Manhattan to the Dutch for \$24 in 1626? We will create games like Mad Libs, guess the state capitals, and how to convert English into Pig Latin. There are no prerequisites other than a desire to learn.

58) Minecraft: Challenge Camp Edition
Instructor: Matt Cooke

Session 1 9:00 Grades 4-9
Session 2 9:00 Grades 3-6
Session 1 & 2 10:30 Grades 4-9

Minecraft combines easy to use graphics and game play coupled with multi-player in several different modes accessible to learn at different levels. Journey from simple game play to more complex world creation and server hosting. Campers will work together to create their own computer-generated worlds with an almost infinite combination or primitive mechanical devices, electrical circuits, and logic gates built with an in-game materials known as Redstone. Using teamwork to create a world from the ground up, Minecraft will serve as a gateway to enlighten students how to safely and securely utilize technology involved in game creation. Aspects of the computer science and information systems worlds will be introduced including, but not limited to, software programming, overall concepts and principles of networking and the hardware required in building these seemingly complex systems.

PLEASE HAVE A CURRENT MINECRAFT ACCOUNT PRIOR TO THE START OF CAMP

59) PC Builders Academy
Instructor: Carlos Meder

Session 1 10:30 Grades 5-9

Unleash your inner tech wizard as you dive into the world of PC assembly and customization! In this course, we won't just teach you how to build a computer; we will guide you through the exciting journey of crafting your own cutting-edge PC. From the sleek, blank canvas of a bare case to the heart of the machine – the motherboard – and all the way to fine-tuning the operating system and software, you will be the mastermind behind your very own lightning-fast PC. Bid farewell to that outdated desktop as you upgrade to a personalized powerhouse. Are you ready to build, tweak, and conquer the digital realm?

Computer Fee: \$900

60) Machine Learning and Artificial Intelligence
Instructor: Carlos Meder

Session 1 9:00 Grades 5-9
Session 2 10:30 Grades 5-9

This year Chat GPT has generated headlines, but how do you teach a computer to follow your instructions? Machine learning is the science of getting computers to act without being explicitly programmed. Researchers think it is the best way to make progress towards human-level Artificial Intelligence, and in the past decade, machine learning has given us self-driving cars, practical speech recognition, and effective web search. You will learn to use Teachable Machines software from Google which lets you create computer programs that can make decisions based on setting you "teach". You can use images, sounds or motions to control the outcome using this cutting-edge technology.

61) Super Smash Bros.
Instructor: Carlos Meder

Session 2 9:00 Grades 5-9

Super Smash Bros. is the fastest growing ESports game for high school and college students. Campers will learn strategy, teamwork, and gaming skills through the exciting world of competitive ESports! As one of the most popular and skill-driven games, learn the strategies and teamwork that make competitive gaming so much fun. Explore character abilities, stage dynamics, and advanced techniques to analyze their plays and level up their gameplay. Learn essential esports values - good sportsmanship, communication, and teamwork, how to support teammates, respect opponents, and handle wins and losses with a positive mindset. If they are new to Super Smash Bros. or already seasoned players, every camper will leave with a deeper understanding of the game, improved skills, and the excitement of competing on an esports team.

62) YouTube Content Creator
Instructor: Donell Clark

Session 2 9:00 Grades 6-9
10:30 Grades 4-6

Like and subscribe to this inventive class and show off your creative talent. Campers will develop the tools they need to create a sustainable YouTube or Twitch channel. Campers will learn how to create serialized content about areas that interests them. Topics explored include how to develop an audience and how to generate an on-camera personality. The course will give campers the digital skills of basic video editing and proper green screen use. Media ethics and strategies for staying safe online will be prioritized.

Afternoon Challenge Course Selections

PLEASE REFER TO THE COURSE SELECTION CHARTS FOR CLASS TIMES BY GRADE LEVEL

1) 3D STUDIO ART

Session 2

Dive into the exciting world of three-dimensional art in this project-oriented class integrating science and art to explore 3D modeling. From sculpting clay to constructing with recycled and mixed materials, students will learn techniques to bring their artistic visions to life.

2) ADOBE ANIMATION

Session 1 & 2

Bring your creativity to life with the power of animation! In this exciting class, campers will enter the world of Adobe Animate, learning how to design, animate, and tell stories through motion graphics. Perfect for budding animators, storytellers, or digital artists, this class combines technical skills with creative expression. Campers will have a strong foundation in animation and a portfolio-ready project to showcase their skills!

Adobe Animation Fee: \$50

3) AQUA CHAMPS

Session 1 & 2

Campers will learn to swim and have an introduction to the world of sports in this combination class. Swimming instruction will occur on Mondays, Wednesdays and Fridays in the Iona athletic center indoor pool. On the alternate days, campers will participate in sports activities designed to enhance and develop motor skills, coordination and sportsmanship through active play and instruction. Campers must provide a swimsuit, towel, goggles and Ziploc bag for wet items on swim days.

4) ARDUINO APPLICATIONS

Session 1 & 2

Ever wondered how robots think or what makes a smartphone so smart? Uncover the secrets of technology's brains with our Arduino Applications course. Dive into the realm of microcontrollers, the heartbeat of modern computing. Using the versatile Arduino platform, you will explore the fundamentals of electrical engineering and programming. Get hands-on experience as you bring your imagination to life, creating a variety of projects with a basic starter kit. This is your chance to become a tech innovator and decode the language of microcontrollers!

Arduino Kit Fee: \$75

5) AWESOME ILLUSIONS & PUZZLES

Session 1

More than meets the eye! In this awesome workshop, inspired by New York City's Museum of Illusions, campers will explore how neuroscience explains optical illusions. Campers will explore the secrets of mind-bending illusions, tricky puzzles, and cool optical effects and will create their own deceptive and misleading brain images like impossible waterfalls, visual paradoxes, mind-bending patterns, mirror illusions and create trick photography to provide a boost of brainpower and ignite your logic skills!

6) A BAKER'S DOZEN - INTENSIVE

Session 2

Pack your ingredients and let's embark on an international baking tour! In this class, young bakers will learn to bake treats from around the world including alfajores, sponge cake, biscotti, soufflés, cream puffs, and tres leches cake. These classic desserts will be delicious beyond measure!

- **A Baker's Dozen Fee: \$200**

**** This class is a double period intensive elective**

7) BASKETBALL

Session 1 & 2

Campers will learn the FUNdamentals of basketball. Through drills and instruction campers will have a great time practicing dribbling, shooting, jumping and game play that emphasizes teamwork and sportsmanship.

8) BLACK AND WHITE DRAWING

Session 1

You must think out of the box to create extraordinary artwork with the absence of color. Using pencils, Sharpies and paper, you will learn how to draw graphic designs of animals, trees and faces. You will be amazed at the movement and dimension using only simple lines, contrast, and shadows in your drawings!

9) BLING IT ON

Session 1 & 2

This imaginative class centers around the design and creation of beaded jewelry. Color, pattern and individual style using beads, jewels, shells and feathers will set your designs apart! Bracelets, earrings, necklaces, pins, jeweled masks and anything you design is sure to shine!

10) BOARDGAME BUILDERS

Session 1

Bring your creativity and love of games to life as we learn the process of designing and creating your very own board games. We will start by analyzing games you already know, then create a theme, title, setting and goal for your gameboard. We will think through rules, objectives, and game mechanics as we plan a layout that is both functional and visually appealing. Campers will combine creativity, strategy, and problem-solving to build a game they can play and share with friends.

11) BOLD POP DANCE

Session 1 & 2

This vibrant dance class blends the energy, freestyling, storytelling and power of hip hop and breaking, with jazz technique, while embracing the creativity of the dancers. Students will develop musicality, choreographic skills, strength, teamwork and confidence both onstage and off. A signature of all BOLD Arts programs is that each camper's individual strengths and personality shine through the work we create together. All students will have the opportunity to perform at the conclusion of the session.
Taught by BOLD Arts.

12) BONJOUR – CONVERSATIONAL FRENCH

Session 2

"Oui, s'il vous plait!" Our discussions will be based on the individual French language proficiency and interests of the students. We will build upon grammar and pronunciation through various conversation themes. The interactive format using a wide variety of mediums will raise the camper's level of confidence in speaking the language.

13) CAINE'S ARCADE

Session 1

Inspired by the documentary film *Caine's Arcade* this class will be amazing, creative and fun. We will use cardboard and a variety of found and recycled objects to create our own carnival games style arcade. Campers will develop an understanding of the physics and engineering behind their creations.

14) CANSAT SATELLITE ENGINEERING

Session 1

Step into the exciting world of aerospace with CanSat Satellite Engineering! In this interactive course, students will learn the fundamentals of satellite design, build their own CanSat (a miniaturized satellite the size of a soda can), and experience the thrill of a simulated launch. Soldering components and diving into basic coding, campers will explore the science of satellite engineering. We will be using sensors to collect data - including temperature, altitude, and learning to analyze data like an aerospace engineer. This course is perfect for curious minds interested in space exploration that enjoy building, experimenting, and problem-solving.

- **CANSAT Satellite Fee: \$400**

**** This class is a double period intensive elective**

15) CHESS CHALLENGE

Session 1 & 2

Chess is a tremendously popular activity at Challenge Camp! Come to play individual and team games against opponents of all ages and abilities. Develop your own chess strategy and tactics through supervised play.

16) CHOCOLATE WORKS ACADEMY

Session 1 & 2

Indulge in the delightful world of chocolate making in in this hands-on, fun-filled course takes young learners on a delicious journey from bean to bar, teaching them the basics of chocolate making. Campers will get to mix, mold, and decorate their own chocolate creations, learning about different types of chocolate and the art of tempering. This experience is perfect for the aspiring bakers and chefs who love attention to detail and have the patience to precisely manage the production from melting wafers, dipping, decorating and packaging. It's a sweet blend of culinary skills and creativity, leaving them with both new knowledge and tasty treats to share with family and friends.

- **Chocolate Fee: Session 1 - \$75, Session 2 - \$60**

**** NOT RECOMMENDED FOR CAMPERS WITH FOOD ALLERGIES ****

17) CLAY CREATIONS

Session 1 & 2

Get your hands messy and your creativity flowing in this fun and interactive clay sculpting class. Campers will learn foundational techniques like rolling, pinching, coiling, and slab building to sculpt animals, pots, and imaginative characters. We will experiment with textures and tools to bring detail to our work, then paint and glaze the finished creations.

18) CODE CENTRAL: PYTHON

Session 1 & 2

Embark on a coding journey with Code Central: Python! Perfect for beginners and budding technologists, this course unravels the basics of Python, an object-oriented programming language. Discover the joy of programming with Python's simple syntax and easy learning curve. Explore variables, loops, decision statements, and other fundamental programming concepts that serve as building blocks for future languages. No prerequisites required—just bring your eagerness to learn. Unlock the potential of coding at the heart of Code Central: Python!

19) CODE CENTRAL: JAVASCRIPT ANIMATION & DESIGN

Session 1 & 2

Learn coding basics while having fun creating animation, games and sketch art. We will be using a version of JavaScript known as p5.js. JavaScript is the most widely used computer programming language and the backbone to most web pages. p5.js makes coding fun and easy for artists, designers and beginners. In less than 15 lines, you will be able to create an arrow shooting across the screen or a waterfall of balloons of different sizes and colors bouncing around the screen (and needing to be popped!) p5.js is great for visual learners. Learn how to create variables, loops and algorithms.

20) CODE CENTRAL: SCRATCH JR

Session 1 & 2

Young campers will be introduced to coding basics using the Scratch Jr. software. Scratch Jr. is a visual programming language that enables students to create games and animated projects. Using visual code blocks, Scratch Jr. guides you through programming concepts – such as loops, conditional logic, sequencing, and algorithmic thinking. Campers will unleash their creativity, innovation, and curiosity as they develop coding skills.

21) CONFIDENT CHEFS

Session 1

Designed to give campers confidence in the kitchen. Come and have some fun rolling sushi, making dumplings, learning the art of Mexican street tacos and more. Treat friends and family to interesting decadent desserts such as mochi madness, cheesecake cupcakes, chocolate chip cookies, pop tarts to name a few. Campers will learn to prepare ingredients, organize their work space and use tools of the trade. Our confident chefs will learn how to properly season meals while developing their critical palate. Bon appetit!

- **Confident Chefs Fee: \$120**

22) CREATING WITH CANVA

Session 1 & 2

Unleash your creativity and learn the art of design using Canva, a user-friendly graphic design tool. Campers will explore how to create stunning visuals for school projects, social media, and personal use. We will master the basics of Canva, including templates, text tools, and design elements as we create posters, presentations, flyers, and graphics. Campers will delve into key design principles like layout, color, and typography. This class is perfect for aspiring designers, creative thinkers, or anyone who loves to express themselves visually as we turn ideas into an eye-catching design portfolio of projects!

23) CURIOUS CHEF

Session 2

Campers will learn the basics of cooking and healthy eating. Cooking is math, science and an art. Chefs will learn kitchen organization, following directions, measuring, and preparing ingredients to complete a recipe from start to finish. Experience making simple foods from scratch and create the foundation to be good chefs and more informed eaters.

- **Curious Chef Fee: \$100**

24) DIGITAL COMICS

Session 1 & 2

Digital graphic comics and stories are extremely popular with campers of all ages! In this engaging digital storytelling class, we will read, write and illustrate our own comics and designs. Beginning artists are more than welcome as there is themed art from you to choose from, incredible animation and loads of templates to start story building with! If you have an idea, you can quickly create visually dazzling content for your story. Create and animate your characters, word balloons, sound effects and bring your original stories to life on screen!

25) DRONE LIGHT SHOWS

Session 2

Soar into the future with Drone Light Shows! In this exciting and educational program, kids will learn the basics of coding and design as they create their very own dazzling drone light shows using Litebee Star drones. Campers will master drone safety, programming, and teamwork while transforming their imaginative ideas into stunning visual performances. Whether it's crafting colorful patterns or telling stories with light, this class combines STEM learning with artistic expression for an unforgettable experience.

- **Drone Light Show Fee: \$150**

26) DRONE SOCCER

Session 1 & 2

Drone Soccer is a fast-growing ESport. It is a thrilling indoor team sport played with radio-controlled quadcopters in protective exoskeletons designed for collisions. Teams of up to five players face off in a netted arena where they ram and block the opposing team to prevent them from scoring. But before pilots can compete, they must first learn to build, program, fly, and repair high-performance drones. Learning these engineering skills can lead to exciting careers in technology and aviation. To learn more about this emerging sport, visit <https://www.dronesoccer.us/>.

- **Drone Soccer Fee: \$150**

27) DRUM ROLL

Session 1

Feel the beat as you drum to your heart's content. Enjoy a hands-on and unique experience studying rhythm and percussion in many forms. We will discuss the history of percussion and explore rhythms from around the world. Lessons will include hand drums, drum circles and more! Learn about a variety of percussion instruments such as congas, shakers, cow bells, and tambourines while performing with a professional musician.

28) DUNGEONS & DRAGONS

Session 1 & 2

If you can imagine and think of lands and magical creatures, then you can play Dungeons and Dragons. Think of yourself as a character in a book. Imagine magical places and items – many surprises lie ahead. For campers with significant D&D experience, this year we have created a separate Advanced section.

29) EDISON ROBOTICS

Session 1

Enter the world of robotics and coding with Edison Robotics. The Edison robot is a powerful, engaging tool for teaching children computational thinking and computer programming in a hands-on way. Campers can immerse themselves in a variety of STEM and engineering projects as they learn to design and invent. Using the EdBlocks and EdScratch software, these programmable robots will open up the world of coding and bring computer science to life. Students will take home their kit to continue exploring with Edison.

- **Edison Robot Fee: \$75**

30) ESPORTS ARENA

Session 1 & 2

Esports and casual competitive electronic gaming is a billion-dollar industry, and high schools and colleges are responding to the growth of this field by creating programs that can lead to career pathways. Esports provides a sense of community, children learn to create and follow strategies, work cooperatively with teammates and can foster digital citizenship skills and good sportsmanship. Join us in the arena as we delve into a variety of age-appropriate Esports titles and genres including Rocket League, Fortnite, Among Us, League of Legends, Starcraft and more!

- **Esports Fee: \$75**

31) FASHION ILLUSTRATION

Session 2

Calling all fashion designers! Campers will be introduced to beginner fashion illustration techniques. Students will learn basic skills of the trade, such as drawing a fashion croquis (or illustration) and learning to illustrate movement. All designers will create a fashion mood board to display their creations. Join the fun and live out your passion for fashion!

32) FENCING

Session 1 & 2

En garde! Learn the exciting Olympic sport of fencing! Parry, cut, and lunge, as you improve strength, coordination, focus, balance and more. Fencing is a high-speed, exhilarating sport that relies on quick wits and cunning, and engages the entire body along with the mind... most importantly, it's FUN!

- **Fencing Fee: \$100**

33) FUTURE LEADERS

Session 1 & 2

Empower your camper to shine as a confident leader, skilled team player, and well-rounded individual. Participants will learn essential preparing them for success in school, relationships, and life. Each session is packed with fun, hands-on experiences like role-playing, creative teamwork exercises, and personal growth reflections. Through these engaging activities and group challenges, campers will learn to work collaboratively, resolve conflicts, and build trust. Our Future Leaders will be inspired, equipped to communicate effectively and lead with confidence.

34) GUITAR JAM

Session 1 & 2

For campers with guitar experience to expand to the fundamentals of guitar performance. Campers will learn to play elementary chords, melody and proper hand techniques. Each class is a fun environment where we study and play popular songs. Music theory will be introduced to emphasize guitar technique and performance. Bring your own guitar, or we have several that students can use during class.

35) IMAGINATION STATION

Session 1 & 2

Enter the Imagination Station, where creativity and curiosity come to life! Campers will dive into a STEAM world of colorful art, and exciting projects that inspire wonder. From designing art masterpieces to experimenting with colors in science, or making gooey slime, each session inspires creativity. Campers will engage in fun, interactive activities that build problem-solving skills and teamwork. Join us in the Imagination Station, where fun meets learning!

36) INTRODUCTION TO GUITAR

Session 1 & 2

In this beginner-friendly course, young musicians will learn the basics of guitar playing, including chord progressions, strumming patterns, and simple melodies. From holding the guitar properly to playing their first song, this class introduces children to the joy of music. Playing guitar also helps in developing fine motor skills, enhancing concentration, and fostering a lifelong love for musical expression. If you do not own a guitar, we have several that students can use during class.

37) IT'S A SMALL WORLD

Session 1

Through music and songs, we will discover many countries and their musical culture: Korea, France, Ireland, Africa and the United States. You will build a likembe, also called kalimba and make your own "one of a kind" instrument out of recycled materials.

38) K'NEXplorations**Session 1 & 2**

Dive into a world of creativity and engineering and become master builders using K'nex. This hands-on class encourages children to think outside the box as they construct everything from towering skyscrapers to intricate vehicles, learning about basic engineering and architectural principles along the way. Campers work both individually and in teams, fostering problem-solving skills and collaboration. This is an ideal environment for young builders to unleash their imagination, develop fine motor skills, and gain confidence in their ability to create amazing structures.

39) LEGO MINDSTORMS**Session 1 & 2**

Bring the fascinating world of robotic technology alive with Lego Mindstorms EV3 Robots! This robotics course teaches the students the principles of assembling and operating an interactive Lego Robot. Mathematical standards will be addressed as well as hands on building of mechanical and electrical systems in robotics. Accurate measurement, geometric relationships, problem solving and reasoning skills will be stressed for success. Students will bring science to life utilizing many possible Lego designs in addition to their own creations.

40) LEGO SPIKE PRIME**Session 1 & 2**

The innovative Spike Prime system integrates Engineering, Robotics and Computer Science and promotes critical thinking through playful learning. Using LEGO bricks, the programmable multi-port Hub, and a coding language based on Scratch will help you build confidence, teamwork and solve complex problems with real world relevance. In units like "Competition Ready" you will build and program robots for competitions. Join the "Invention Squad" and focus on the engineering design process to create limitless possibilities. SPIKE Prime will help campers develop the essential 21st century skills needed to become the innovative minds of tomorrow.

41) LEGO WEDO ROBOTICS**Session 1 & 2**

Introduce robotics and computer programming with the award-winning Lego WeDo! This is a hands-on, challenging and fun way to learn about robots! This class will expose students to engineering, logical thinking, computer programming and team working skills. Campers will build a variety of robots with Lego's and program their models to complete challenges, enhancing creativity and problem-solving abilities.

42) LOL IMPROV**Session 1**

In this improv comedy class, we will help build self-confidence and self-awareness by exploring our creative sides. Campers will need to be quick on their feet utilizing critical thinking, public speaking, listening, and selective attention skills...and best of all, we will laugh a lot! Join us as we write, edit and perform hilarious skits, silly songs, stories, dances and learn the thrilling art of improv. Campers will have the opportunity to perform unforgettable short action-packed comedy shows.

43) MAGIC: THE GATHERING**Session 1 & 2**

Back by popular demand! A game battle in which you and your opponent represent powerful sorcerers attempting to drive each other from the lands of Dominia. Your deck holds your tools: creatures, land, spells and artifacts.

44) MINDFUL ART

Session 1 & 2

Campers will create works of art that encourage and facilitate a relaxed, peaceful state of mind. In a friendly, creative, judgment free zone students will be encouraged to tap into and connect with their mind, body, and soul that they will express through visual arts. Campers will experience working in many mediums including colored pencil, paint, collage, and more. They will explore making mandalas, gratitude jars, dream catchers, dream paintings and beyond.

45) MINI CHEFS

Session 1

Mini Chefs will introduce campers to kitchen awareness. Whisk up some fun making macaroni and cheese bites, breakfast bars, Rice Krispie creations, and learning how to bake and decorate cookies and more. In this hands-on course campers are introduced to the basics of cooking in a safe and nurturing environment. We will learn fundamental skills such as measuring, mixing, preparing ingredients and following recipes.

- **Mini Chefs Fee: \$120**

46) MINI MAKERSPACE

Session 2

Dive into the world of STEAM and design your own amazing creations. Become an inventor, engineer, and artist where YOU get to choose what you want to build, create, and explore! Our Mini Makerspace is a place where your imagination and creativity come to life. Building robots, designing fantastical buildings, creating working games, or experimenting with art and simple machines - the choice is yours! Every project is an opportunity to experiment, solve problems, and have fun.

- **Mini Makerspace Fee: \$40**

47) MINI NINJAS

Session 1

In this active class designed for younger campers, they will have fun exploring movement through creative elements. Utilizing props and obstacle courses, all will be physically challenged in a multitude of ways, helping them gain body awareness and coordination. Campers will explore a range of movements including dynamic jumping, leaping and running as well as more controlled balance and stretching.

48) MODEL MAGIC MONSTERS

Session 1

Say goodbye to monsters under the bed and hello to your own one-of-a-kind Monster masterpieces! Young artists will use Crayola Model Magic and their imaginations to design and sculpt fun colorful monsters. Through guided instruction, campers will explore basic sculpting techniques, learn about shapes and textures, and bring their ideas to life with vibrant colors and playful details.

49) MONEY MATTERS

Session 1

Navigate the world of money management in this personal finance class. Campers will learn the fundamentals of personal finance, including budgeting, saving, and the basics of banking and investment. Through interactive activities and real-life scenarios, we will gain an understanding of how to manage money wisely, the importance of financial planning, and the value of smart spending and saving habits. This class is a vital step towards financial literacy, equipping children with the skills to make informed financial decisions in the future.

50) NINJA WARRIOR

Session 1

In this active class, campers will have fun exploring movement through creative elements. Utilizing props and obstacle courses, all will be physically challenged in a multitude of ways, helping them gain body awareness and coordination. We will explore a range of movements including dynamic jumping, leaping and running as well as controlled balance and stretching. Speed and endurance will be improved as well as elements of engagement and focus as we build body confidence and have fun.

51) PAINTING ROCKS!

Session 2

Rock painting is a wonderful way to decorate indoor or outdoor spaces. After selecting and priming your rocks, you'll turn them into animals, foods, images, or even characters like Minions and emojis! The possibilities to enhance nature's wonders are endless. Bring happiness to your home or garden with your one-of-a-kind hand-painted rock collection.

52) PEACE YOGA

Session 1 & 2

Peace Yoga is designed to help participants develop self-confidence, self-respect, and self-awareness. This age-appropriate class is geared towards the physical and emotional wellbeing of participants. Campers will learn various yoga poses as well as breathing and mindfulness techniques. We will work together in partner and group poses and incorporate games, music, and other fun props. No previous yoga experience is necessary – if you can breathe, you can do yoga! Proper exercise clothing required: loose pants, T-shirt and towel or yoga mat.

53) PICKLEBALL

Session 1 & 2

This fast-growing sport combines the elements of badminton, tennis and ping pong. Played on a court with paddles and wiffle balls, pickleball is simpler than tennis and fun to play with your friends.

54) PINBALL WIZARD

Session 1 & 2

Construct your own PinBox Pinball machine with two interchangeable playboards that you will design. For makers, creative thinkers and game designers, the PinBox 3000 is a tabletop cardboard pinball kit that artfully integrates mechanical engineering, physics, sculpture, product design and performance! Light up your play board and be ready to "Tilt the Future!"

- **Pinball Kit Fee: \$50**

55) PIXICADE GAME MAKER

Session 1

Have you ever wanted to create your own video game? Do you like to doodle or draw? In this class you will learn how to make your very own video games using Pixicade! All you need to do is draw, then watch your doodles magically come to life as playable games. Campers will learn to use the exciting new Pixicade App and its editing and Power-Up features! This exciting class will teach campers game mechanics and concepts through STEAM and literacy exploration and mini drawing lessons. At the end of the session campers will have a collection of games they created from the stories, characters, goals, worlds, hazards and game challenges developed in class.

- **Pixicade Kit Fee: \$30**

56) POKEMON TCG

Session 1 & 2

Pokemon TCG is an exciting and longtime favorite card game of strategy and skill where campers collect, train, and battle the cute Pokemon characters that inhabit their world. Beginning and experienced players will take on the role of a Pokemon Trainer and play another Trainer to knock their opponent's Pokemon out of the battle! Your camp Pokemon deck will be supplied and booster packs await the masters!

- **Pokemon Fee: \$25**

57) POP ART PAINTING

Session 1

Enter the world of Andy Warhol and Roy Lichtenstein in this multimedia painting class. We will use papers, magazines, plastics and more to complete your pop art paintings! Made on canvas, these inspired, bright and modern works of art will allow you to spark your imagination and creativity!

58) POP UP BOOKS

Session 1 & 2

Bring stories to life in this exciting pop-up book-making class. Learn how to turn ideas into vibrant, interactive books filled with eye-popping 3D designs. From drawing and coloring characters to folding and crafting clever paper mechanisms, each camper will have the chance to design a one-of-a-kind masterpiece. This hands-on workshop combines art, storytelling, and a touch of engineering, helping students develop their creativity, fine motor skills, and problem-solving abilities. Let your imagination soar as you create stories that leap off the page.

59) PRINTMAKING

Session 1

Explore the fascinating intersection of art and science in this engaging printmaking class as we combine artistic expression with scientific exploration. We will explore our surroundings to collect leaves, flowers, twigs, and other found objects. Campers will create dimensional prints utilizing various materials and techniques. We will observe how different textures affect their designs and explore the chemistry behind color mixing and ink transfer to make imaginative projects.

60) PSYCHOLOGY 101

Session 2

Discover the fascinating world of mind and behavior! Psychology helps us understand why people think, feel, and act the way they do. Dive into topics like emotions, how we make decisions, what motivates us, and how we can interpret the actions of friends and family. How do our brains work? How can we encourage healthy habits and be kinder and more empathetic to others. Through interactive activities, games, and discussions, you will see that we are all connected, enabling us to build stronger relationships. Get ready to explore Psychology, the science of YOU!

61) RASPBERRY PI

Session 1 & 2

Unlock the potential of the world's smallest, most affordable, and incredibly powerful computer – the Raspberry Pi! Originating from a British endeavor to revolutionize computer education, the Raspberry Pi introduces you to the real essence of computing. From mastering Linux shell commands to diving into basic programming with scripting languages, you'll embark on a journey of digital discovery. We will explore the limitless capabilities of the Raspberry Pi 5, to equip you with the skills to play games, engage in web browsing, and tackle a myriad of projects. Each camper will receive a basic Raspberry Pi starter kit and a project guide, ensuring you leave with the tools and knowledge for endless experimentation. Get ready to unleash the potential of this pint-sized powerhouse!

- **Raspberry Pi Kit Fee: \$150**

62) RECYCLED ART

Session 1

Repurposing materials is a great way to be ecologically conscious. We can recycle empty jars and containers and turn them into wonderful works of art! We will use paper, paint, twine and found objects to decoupage, embellish and beautify empty cans, bottles, drawer dividers, boxes, paper bags and flowerpots.

63) ROBLOX GAME DEVELOPER

Session 1 & 2

Roblox is one of the largest online gaming platforms, with millions of games created by its users. Students will learn to use the Roblox Editor and the Lua coding language to create adventures which can be published to smartphones, tablets, desktops, or consoles. They will explore programming concepts such as loops, arrays, and more on their journey and will learn fundamentals of game making including game mechanics and level design.

64) ROCK BAND

Session 2

Have you always wanted to play in a band? This class is your opportunity to unleash your inner rock star. In this ensemble course musicians will experience all facets of performance from rehearsing to performing songs as a part of a rock band. This course is recommended for campers with musical training and a willingness to bring their own instruments. The culmination of this rock band class will include a performance for fellow campers as a final project.

65) ROCKET UNIVERSITY

Session 1 & 2

Campers will train to be real “rocket scientists” and “aerospace engineers” in this inspired offering. In “Rocket University” you will learn about the history of rockets from ancient Chinese fireworks to modern day spacecraft and military applications while discovering principals of launching, trajectories, thrust, navigation, flight paths, altitudes, orbits, recovery methods, safety and more! Students will receive their individual rocket kits and assemble them while applying what they have learned to their design and construction. You will launch your rockets and record data.

- **Rocketry Fee: Session 1 - \$120, Session 2 - \$100**

66) SOCCER

Session 1 & 2

Soccer is the most popular team sport in the world. Learn the strategies for playing offense and defense and improve your dribbling, passing and shooting skills in this fast paced, action-packed class.

67) SPA SCIENCE

Session 2

Explore the fascinating world of cosmetic chemistry for aspiring formulators, science enthusiasts, and beauty product aficionados. We will create our own formulations, including moisturizers, lip balms, serums, facial masks and more, while mastering the principles of ingredient selection, stability, and safety. We will use scientific testing methods to evaluate over-the-counter products by analyzing product efficiency, such as hydration levels, UV protection, and anti-aging claims. Participants will develop a foundation in cosmetic science, gain practical lab experience, and acquire critical thinking skills for assessing both homemade and commercial beauty products.

- **Spa Science Fee: \$40**

**** Not recommended for campers with allergies or skin sensitivities. ****

68) STAGE DOOR**Session 1 & 2**

Enter the world of theatrical production! Learn the art of costume and set design. Under the guidance of our artistic director, we will research, measure, design and create original costumes for the musical theatre productions of "Willy Wonka" and "Cinderella". Costumes / scenery will be constructed of fabric, paper, foam board, paint and other materials. This imaginative behind the scenes process will bring our production to life and provide an awareness of the importance of stagecraft and design skills to the production. Participants from the theatrical cast are encouraged to join and other non-performers are all welcome!

69) STOCK MARKET ANALYTICS**Session 1**

This is a class for students who want to understand how the stock and bond markets function. Campers will build their own stock portfolio in the Stock Market Game by using qualitative and quantitative analytical approaches. With the qualitative approach, campers will be choosing companies with products they like (ie Nike or Coca Cola) and that they are familiar with. The quantitative approach will involve analyzing data using Excel, and the campers will learn both basic and advanced tools for forecasting and monitoring their portfolios. We will learn which methods perform best and see if we can beat the market at its own game.

70) STOP MOTION LABORATORY**Session 1 & 2**

Whether you love drawing, painting and sculpture or whether you would like to write stories or act out dramatic scenes, you will have fun exploring the possibilities of animation. Spend a little time learning the basics of handling the camera setup and stop-motion app, then let your imagination take off as you bring your drawings to life or create your own 3-D characters with modeling clay. You can also use small toys, or even animate real people in your films. Students will receive a digital copy of their films.

71) STORYBOOK YOGA**Session 2**

Storybook Yoga combines yoga poses and movements with popular children's stories. In our class the priority is fun! We will move our bodies and use our breath to embody the stories we read, with the help of games, music, and other mindful activities to bring books to life. We will also use our vibrant imaginations to create our own poses as we transform into storytellers ourselves.

72) SWIMMING**Session 1 & 2**

Learn to swim and have a splashing good time in the wonderful indoor pool this summer. Swim instruction and free swim time will be held on campus each day in the Iona athletic center! Challenge Camp follows the American Red Cross swim progression. Campers must provide a swimsuit, towel, goggles and Ziploc bag for wet items.

73) TAE KWON DO**Session 1 & 2**

Literally "the art of kicking and punching", Tae kwon do is a martial art that has developed over the course of thousands of years with the earliest records of its practice dating back to 50 B.C. from Korea. It is a highly disciplined art of self-defense, physical prowess, and moral discipline. It is distinguished from other martial arts by its varied and unique powerful kicks.

74) THIS LAND IS YOUR LAND**Session 2**

Discover the beauty of Folk and Native Heritage music by learning songs that explore these meaningful times. Have fun singing and learning the historical nature and cultures that inspired songs like Yankee Doodle, I've Been Working on the Railroad, This Land is Your Land, Oh Susannah and more!

75) TOY INVENTOR'S WORKSHOP

Session 2

Through imagination and creativity, campers will build their own toys using the concepts of simple machines and engineering like motion, force, tension, and balance. You will have great fun building a homemade dart board, inventing a marble maze, creating a corn hole toss game, designing a structure made out of popsicle sticks and more! Our dynamic toy workshop is about experiencing the joy of making something of your own from start to finish.

- **Toy Inventor Fee: \$40**

76) TURBO TRUCKS

Session 2

How would you like to race a remote-control truck on the Challenge Speedway? In this class you will have the opportunity to race a fully ready Traxxas Rustler, known for fun and durability and with more power, smoother control, better grip, and performance that makes it one of the fastest electric trucks available. Race your car on outdoor courses that you design with cones, ramps and more. Campers will take home their car/equipment. With Traxxas' exclusive waterproof electronics, your Rustler can blast through dirt, puddles, mud and even snow, your R/C adventures are limited only by your imagination.

- **Truck Fee: \$200**

77) ULTIMATE FRISBEE

Session 1 & 2

Ultimate Frisbee is an exciting, non-contact team sport that is played throughout the world and whose popularity continues to rise. Ultimate is a unique mixture of Frisbee, football and soccer, providing an exhilarating workout. The spirit of the game stresses sportsmanship and fair play.

78) UNITY GAME MAKER

Session 2

Calling all aspiring video game developers! Using the Unity game engine, students will create a 2.5D platformer using various 2D, 3D, & Sound assets. The goal of this course is to have students design an appealing and fun game that gives them a solid foundation in programming. Campers will be able to create their own C# scripts that control behavior of the objects on screen as well as modify pre-written code provided by the instructor. Whether you have experience in coding or not, all that is required is a little bit of creativity and a passion for video games.

79) VIVE LA FRANCE

Session 1

Hop aboard the TVG and travel to Paris and the provinces of France. Discover the French countryside and Versailles. Traverse the Loire River, villages, food, and music. Students will pack their suitcase and travel with a real boarding pass and train tickets from the SNCF. This is a very interactive program including role-plays to allow students to learn the basics of the French language. Allons-y!

80) THE VOICE

Session 2

Sing, shine, and create in this dynamic vocal, musical theater, and songwriting class, perfect for children who love the spotlight! Students will explore a wide range of music, from catchy pop hits and enchanting Broadway showtunes to beloved Disney classics, with opportunities to sing their favorite songs karaoke-style. Alongside developing their singing and acting skills, young performers will dive into the basics of songwriting, learning simple harmonic progressions, melody writing, and lyric crafting. This lively and supportive environment builds confidence, encourages creativity, and prepares students for thrilling end-of-course performances that showcase their talents and original songs.

81) VOLLEYBALL**Session 1 & 2**

Bump, set, and spike your way into fun as we learn the basics of volleyball in a supportive and energetic environment. Practice teamwork, communication, and sportsmanship through drills and games. Campers will learn essential skills and build confidence on the court.

82) WATERCOLOR WONDERS**Session 1**

Splash, blend and create magical works of art in this class that introduces young artists to the world of watercolor painting. You will explore vibrant colors, experiment with different techniques, and create beautiful artwork that's full of imagination. With every brushstroke, you will discover the joy of painting butterflies, birds, flowers, rainbows and the endless, unique possibilities that watercolors can offer!

83) WIX WEB DESIGN**Session 1 & 2**

Creating interesting, dynamic Websites begins with knowing how to use the tools of Web design. We will be mastering Wix, an online software tool that will allow campers to create professional looking content. Through exploration of design concepts such as layout, contrast, readability, and interactive elements we will develop an understanding of what makes a great user experience. Campers will create websites on a variety of topics including movie reviews, game history, favorite musical genre, "how to..." and more. We will develop documentation skills through digital photography, explore proper digital citizenry and etiquette, and create interactive Web sites that will showcase campers' interests.

84) WONDERLAB**Session 2**

Step into the lab and unleash your inner scientist! This class is an explosion of fun (sometimes literally!) as we delve into the wonder of experiments across biology, chemistry, and physics. Grow crystals, create colorful chemical reactions, build gadgets that defy gravity, and solve puzzling science mysteries. With bubbling beakers, glowing gizmos, and fascinating discoveries, learn the secrets of the natural world while having a blast. Are you ready to make science the coolest thing ever?