

Afternoon Challenge Course Selections

1) AMERICAN CHEF - INTENSIVE

Designed for campers with experience in the kitchen. In this advanced cooking class, we will cook our way from California to Maine while learning about the culture, terroir, and ingredients from various regions of the United States. In addition to cooking regional desserts and entrees, we will learn to cook updated versions of recipes incorporating diverse ingredients reflecting our changing culinary landscape. Campers will learn to cook more intuitively to spark creativity in the kitchen with delicious results.

- **American Chef Fee: \$200**

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

2) ANIME-TION

The art of cartooning is full of creative expression, humor and fun. Join us to learn techniques of cartooning including sketching and use of color. You will learn to draw familiar faces such as Spiderman, Mickey Mouse and the Simpsons. Next, we will dive into the ultra modern art of Japanese anime. The wildly popular anime characters have larger than normal eyes, exaggerated expressions and a stylized type of design. Your original anime illustrations will reflect your own personality, imagination and artistic style!

3) ARDUINO APPLICATIONS

What is a robot without a brain? Why is a smart phone so smart? How do you make your computer turn a motor? All of these are a result of microcontrollers, the next step in computing and technology. Here is an opportunity to learn how to use microcontrollers using the Arduino platform. Learn the basics of electrical engineering and programming as we build a number of projects using a basic starter kit and your imagination!

- **Arduino Kit Fee: \$75**

4) ART ON THE MOVE

So much fun for our littlest campers! 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.

5) AWESOME ILLUSIONS & PUZZLES

More than meets the eye! In this awesome workshop, inspired by New York City's Museum of Illusions, students will explore how neuroscience explains different optical illusions. We will use scientific principles to create our own using color, light and patterns. In this workshop campers will create puzzles and illusions that will both inspire and boggle the mind! Campers will create 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) BASKETBALL

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.

7) BOLD Pop Dance

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 person's individual strengths and personality shine through the work we create together. All students will have the opportunity for a virtual performance at the end of the session. *Taught by BOLD Arts.*

8) CAINE'S ARCADE

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. The finished projects will be used in conjunction with the Junior Entrepreneur "Care"-nival to raise money for this year's charity.

9) CLOSING BELL

In this introduction to Wall Street class, students will build a virtual stock portfolio and compete for the "best stock picker" bragging rights. After examining the activity at the NYSE and NASDAQ each day, we will learn analytical and operating aspects of the stock market. We will begin by evaluating and comparing stocks. We will review our portfolios daily and debate our purchases while learning to use tools to assist in our decisions to buy, sell or hold individual companies. By understanding how the stock market works, we will know the pros and cons of investing and how to buy low and sell high!

10) CODE CENTRAL: EXCEL VBA

Excel is the most widely used technology platform in the world. Knowing Excel is one of the most critical skills any worker or student can have. VBA (Visual Basic for Applications) is the programming language embedded in Excel and is used widely in all fields, especially the business and financial worlds. In this course, students will get an introduction to Excel plus a deep dive into the VBA programming language. They will learn how to create variables, loops, control structures (if/then logic) and arrays. We will use this knowledge to create a chess board, a boggle board, dice games, a Yahtzee game and other games of our campers' imagination.

11) CODE CENTRAL: SCRATCH GAME CREATORS

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 work like whirling spirals, planets circling around the sun in the solar system, and spin art.

12) CODE CENTRAL: SCRATCH JR

In this class, 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. Unleash their creativity, innovation, and curiosity as they develop coding skills.

13) CODE CENTRAL STATION: PYTHON

This course aims to teach the basics of Python, an object oriented programming language. Perfect for beginning programmers or budding technologists to squeeze programming power and fun out of their computer, Python uses a simple syntax and has an easy learning curve. Learn about variables, loops, decision statements, and other basic programming concepts using this easy-to-read programming language. The coding principles will provide the building blocks to learn programming languages in the future. There are no prerequisites other than a desire to learn.

14) CURIOUS CHEF

In this class, 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**

15) DANCE A STORY

In this class, young dancers will bring books and stories to life. Children will dance along and be given a prompt to create their own choreography, using the story. Cha Cha and Tango with *Giraffes Can't Dance*, create flashlight solos with *Firenze's Light*, dive into a painting with *Flyaway Katie*, and more! This class is active, interactive, and filled with opportunities to create. *Taught by BOLD Arts.*

16) DIGITAL COMICS

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. You don't have to be an artist as there is themed art from you to pick 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!

17) DUNGEONS & DRAGONS

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.

18) ESPORTS ARENA

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: \$50**

19) FENCING

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**

20) FIBER ART

In this hands-on course we will discover traditional and innovative fiber arts approaches. This class will be filled with fun & learning but also will be a relaxed space for participants to create and chat together. We will hone our weaving, stitching and felting skills in a variety of projects as we make including key chains, pot holders, and dream catchers.

21) GALAXY QUEST

Drawing inspiration from the Mars Rover and Webb Telescope, during this course, we will discuss the development of humanity's understanding of the solar system, examining contributions by Aristotle, Ptolemy, Copernicus, Galileo, Newton, Einstein and others. What makes Earth different from all other planets? What has NASA discovered about Mars' suitability for life? What are super moons, eclipses, asteroids and comets? the Hubble Telescope and the Kepler Mission revealed over 2000 exoplanets around stars other than the sun. Create your own solar system incorporating our knowledge of the Milky Way, planets, moons, stars and other galaxies. We will debate if life really can exist on other planets and when humans will be able to visit them!

22) GRAPHIC DESIGN STUDIO

In this class, we will explore the methods which graphic designers use to communicate their ideas with impact, including playing with positive and negative space, scale (size,) color, typography and much more. Explore fun activities that will stimulate our creative problem-solving skills. We will discuss examples of creative work by professional designers, get our ideas flowing by making drawings and collages and then work to complete our designs. Projects will include T-shirt designs, posters, and animated graphics.

- **Graphic Design Fee: \$50**

23) INDIE GAME MAKER

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 main goal of this course is to have students design a game that's appealing and fun but also gives them a solid foundation in programming. Students 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.

24) IT'S A SMALL WORLD

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.

25) JUNIOR VARSITY

Specifically designed for 5-7 year olds, this sports activity and recreational games program is a wonderful introduction to the world of sports. All activities are designed to enhance and develop motor skills, coordination and sportsmanship through active play and instruction. Some of these activities include: running games, parachute challenges, throwing, catching, kick ball and more.

26) KITE RUNNERS

Kite flying is a very popular pastime in many countries including China where they were invented and which hosts the largest international kite festival on Earth. Colorful designs often emulate flying insects, birds and other animals. Campers will build artistic Chinese inspired life size and decorative kites to fly in the Challenge Camp sky.

27) K'NEXplorations

This is a hands-on building experience designed to promote creativity and problem solving skills. Mathematical and Science design projects will be integrated to develop skill in construction using Rods and Connectors.

28) LEGO MINDSTORMS

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.

29) LEGO SPIKE PRIME

We are excited to introduce you to LEGO SPIKE PRIME! This new innovative 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. SPIKE Prime will help campers develop the essential 21st century skills needed to become the innovative minds of tomorrow.

30) LEGO WEDO ROBOTICS

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.

31) LE PETITE PRINCE

Visual, audio and tactile stimuli are all intertwined to build literacy skills in French language. Celebrate French children's books by reading and performing dialogues and songs based on the stories. Characters we will meet include Madeline, Caillou, Petit Ours Brun, Oui-Oui and Le Petite Prince.

32) LOGIC PUZZLES

Train your brain as we tackle logic puzzles and other similar challenges. Develop your deductive reasoning skills as we learn Cryptograms, Nonograms, Syllogisms and Sudoku puzzles. We will even create our own puzzles to stump our family and friends.

33) MAGIC: THE GATHERING

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.

34) MATH TESTING TIPS & TRICKS

With standardized tests on the horizon for many of our campers, in this class we will learn tips and tricks for approaching math tests. Arm yourselves with strategies that allow you to determine the best approach to figuring out the solution while avoiding the traps set by the questions. Sharpen your pencils and your math skills!

35) MECHANICAL MARVELS

A Rube Goldberg machine is a deliberately over-engineered machine that performs a very simple task in a very complex fashion, usually including a chain reaction. In this class, dominoes may knock over a marble into a pegboard activating a pulley triggering a golf ball into a zip line starting a toy truck that eventually grabs a tissue! You will investigate the fundamental concepts of engineering and construct wildly imaginative group mechanical marvels. Our inventors will be able to view a video of their wacky creation online to show to family and friends. Learn more at www.rubegoldberg.com.

36) MINDFUL ART

Campers will create works of art that encourage and facilitate a relaxed peaceful state of mind. In a friendly, creative, judgment free zone campers 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 color pencil, paint, collage, and more. They will explore making mandalas, gratitude jars, dream catchers, dream paintings and beyond.

37) MINI NINJAS

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.

38) MIX MASTERS: THE ONES & TWOS

Have you ever wanted to be the life of the party? In this workshop, campers will spin into the fast and exciting world of DJing. We will explore software that will enable you to cultivate an epic playlist, and perform in front of a crowd. By learning the fundamentals of cutting and transitioning music tracks to have a cohesive flow, you will become a party rocker!

- **Mix Master Fee: \$50**

39) NINJA WARRIOR

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. Campers will explore a range of movements including dynamic jumping, leaping and running as well as more controlled balance and stretching. Speed and endurance will be improved as well as elements of engagement and focus. The goal of this class is to build body confidence and have fun.

40) ORIGAMI

The term origami comes from the Japanese words “Oru” meaning “folded” and “Kami” meaning “paper.” It is an ancient art form spanning over 1000 years that has evolved into an international creative pastime! Through literature and folktale, we will learn the exquisite art of paper folding. Using a single (or several sheets) of decorative paper there are infinite creative possibilities and you will be amazed at the results of folding and manipulation! Part sculpture, part paper folding and all rigorous engineering. Origami today, embodies animals and fantasy figures in an array of dimensions.

41) PICKLEBALL

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

42) PINBALL WIZARD

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**

43) PIXICADE GAME MAKER

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 and then watch your doodles magically come to life as playable games. Campers will learn and use the exciting new Pixicade App and all of it's 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**

44) POKEMON TCG

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 each other's Pokemon out of the battle! Your camp Pokemon deck will be supplied and booster packs await the masters!

- **Pokemon Fee: \$25**

45) POP ART

Enter the world of Andy Warhol and Roy Lichtenstein in this multi media 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!

46) PROJECT RUNWAY

Budding designers can create paper doll international wardrobe designs for tops, jeans, dresses, gowns and even shoes. Students will develop their own stylish textile designs from a variety of materials including fabric, gauze, cotton, tulle, silk, cardboard, linen, paper and feathers. Their runway collection will be stored in their stylish designer trunk of haute couture clothes collages in petite sculptures.

47) ROCKET UNIVERSITY

Students 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: \$100**

48) SKATEBOARD DECK DESIGN

Skateboarding is about having fun and expressing your own individual style. Explore the world of pop and graffiti art by designing, sketching, drawing and painting to create your own brand of skateboards, logos, and all things skater! Your canvas is a skateboard, and campers will leave with their personally designed skateboard deck protected with clear coat, perfect for hanging as wall art or ready to add hardware for skating! Think of the possibilities and make your skateboard the coolest one on the block!

- **Skateboard Fee: \$100**

49) SOCCER

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.

50) STAGE DOOR

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 “The Descendants” and “Kid Frankenstein”. 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!

51) STOP MOTION LABORATORY

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.

52) STRETCHING & MINDFULNESS

Campers will move through a fun and active yoga flow. They will learn how to utilize different breathing techniques to help calm down, cool down, and find their center. We will explore several different stretching and mindfulness activities to help campers stay present, positive, and happy. Balance body and mind by developing both strength, flexibility and mental well-being to help campers create their own harmonious flow. Throughout the session, campers will keep a notebook so that they can continue to practice stretching, breath work, and mindfulness activities beyond their camp experience. Proper exercise clothing required: loose pants, T-shirt and yoga mat or towel.

53) SURVIVOR 2.0

Orienteering, wilderness survival and emergency preparedness is about more than just lighting a fire and pitching a tent. Survivor 2.0 has been reimagined to inspire both new and returning campers. Campers can build a water filter from found objects, use emergency signaling methods, build shelter, find food, make emergency fires more than 5 different ways...even with a cell phone. First aid simulations, scavenger hunts, and geocaching challenges will teach campers valuable life skills. Our session will end with a “wild marshmallow” hunt, s’mores, stories and songs.

54) SWEET & JOYFUL BAKING

In this baking class, we'll whip up a variety of different cookies and other sweet treats and focus on cookie decorating with amazing colors and styles! This class will offer artistic creativity while incorporating elements of math and science as it relates to baking. Campers will delight their families with the delicious goodies they will bring home to share.

- **Baking Fee: \$100**

55) SWIM & SPORTS

Campers will learn to swim and have an introduction into the world of sports in this combination class. Swim 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 swim suit, towel, goggles and Ziploc bag for wet items on swim days.

56) SWIMMING

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! Campers must provide a swim suit, towel, goggles and Ziploc bag for wet items.

57) TURBO TRUCKS

How would you like to race a remote control truck on the Challenge Speedway? In this class you will have the chance 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 around outdoor courses that you design with cones, ramps and more. Campers will take home their car/equipment in this action packed driving and racing class. 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. See your car at <https://traxxas.com/products/models/electric/37054-1rustler>

- **Truck Fee: \$200**

58) VIVE LA FRANCE!

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 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!

59) WIX WEB DESIGN

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.

60) ULTIMATE FRISBEE

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.