

## 2020 – Challenge Camp After School Fall Workshops



For those of you that are new to Challenge Camp, here are **tips for understanding our Fall After School Course Catalog:**

1) **Our Fall After School classes meet once a week for 10 Weeks starting the week of September 28th.** Unless otherwise noted, the classes scheduled for 4:00 and 5:00 meet for a period lasting 50 minutes and the classes that are scheduled for 4:30 meet for a period lasting 80 minutes.

2) We use student's **CURRENT GRADE as of September 2020** for class selection.

3) There are over 80 STEM & Arts Enrichment Options for you to customize a schedule based on your child's interests. **To streamline the process, we highly recommend referring to the course selection charts to guide you to the grade level appropriate classes** for each day and time slot.

4) The instructors will use the Google Classroom page to post supply lists and any software or apps that your student will need to install to participate in the selected enrichment activities. **Parents are responsible for ordering supplies in advance of the session.** We encourage you to order sooner as delivery and shipping times now are unpredictable.

5) Certain courses may have a materials fee listed. These are for class kits or projects. **Where possible, we are working on making arrangements with vendors to ship items directly to you and included this in the listed material fee.** However, there still may be additional supplies required by the instructor. For classes with significant projects, like Drone Flight School **we have listed an estimated fee. We are trying to expedite the logistics where possible, but we may ask you to place the order directly with the vendor.**

6) If you need assistance or have any questions, please email [info@challengecamps.com](mailto:info@challengecamps.com) or call the office 914-779-6024.

## Alphabetical List – All Classes

1) Acting Up on Screen		Tuesday
	Grades K-2	4:00
	Grades 3-6	5:00

All the world is a stage, or these days a screen. Students in this class will learn acting and communication tips while playing cool improvisational theater games. Learn to film yourself like a pro as we interpret classics from Maleficent to Frankenstein and Beauty and the Beast as well as create our own original YouTube or Tik-Tok style scenes. The class will culminate in a live online performance.

2) Adventures in Art		Wednesday
	Grades 1-3	4:00

Calling all students who love experimenting with art materials. Inspired by famous artists, our projects will emphasize techniques that create surprising and exciting effects and rich textures such as: marbling, home-made paints, painted-paper collages, glue resists, scratchboard and more. We will draw, paint, squirt, and swirl, letting the element of discovery enhance our creativity. Share your projects during class and in our online art gallery!

3) Amazing Illusions, Puzzles & Tricks		Wednesday
	Grades 2-5	5:00

Prepare for your mind to be boggled! In this course, students will explore how science can explain optical illusions, puzzles and magic tricks. Then we will use scientific principles to create our own illusions, puzzles and trick photography.

4) Architecture and Design with 3Dux		Monday
	Grades 2-4	4:00
	Grades 4-6	5:00

Join us in this fun and informative architecture and design class. Take your ideas from schematic plans to finished builds using the 3Dux kit designed specifically for Challenge Camp. We will learn about architecture from primitive structures to golden spires and modern experimental buildings. Students will draw, design, build, decorate, and furnish structures from tiny dog houses to sprawling castles and complexes while focusing on physics, geometry, problem solving, and complex spatial thinking. The kit comes with a light set that allows for some extra bright designs and innovation.

Architecture Fee: \$50

5) Arduino Applications		Wednesday
	Grades 4 & Up	5:00

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

6) Astronaut Training		Tuesday
	Grades 2-4	4:00
	Grades 5-7	5:00

Curious about outer space and want to be an astronaut? Join us for this out-of-this-world course! Students will be introduced to STEM concepts and participate in simulated astronaut training activities as they solve STEM challenges, create various forms of rockets, and journey through the solar system. Basic engineering and physics concepts will be applied to the construction of straw rockets, simple launchers and more!

7) Black and White Drawing		Tuesday
	Grades 4 & Up	4:00

You have to think out of the box in this class 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 in your drawings using only simple lines, contrast and shadows!

8) Blender 3D Simulations		Thursday
	Grades 4 & Up	4:00

Blender is a powerful 3D computer graphics software toolset which is used to create animated films, physics simulations, video games and so much more. Using Blender, you can create an impossible scene by controlling and animating physics: Quickly build a tower just to knock it down and watch how it falls from any angle, Pour water into a glass cup and get the perfect, photo-realistic picture as it splashes out, write your name in big 3D letters and then hit it with a wrecking ball - smashing it into a million pieces! Computer creativity and imagination is all you need to produce endless animated possibilities.

\* Students must be on a PC or Mac

9) BOLD Pop Dance		Tuesday
	Grades K-2	4:00
	Grades 3-6	5:00

This vibrant 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 to perform at the end of the session. *Taught by BOLD Arts.*

10) Checkmate 1		Monday
	All Grades	4:00

An introduction to the exciting world of chess. Chess enables children to develop and enhance their skills in discipline, concentration and patience. Students will learn basic opening, middlegame, and endgame strategies and how to achieve a proper coordination of pieces. Chess notation will be taught in order to review games. Interactive instruction will focus on lecture, discussion and basic strategy.

\*Students should have a basic understanding of the pieces and how they move

11) Checkmate 2 Monday  
All Grades 5:00  
Intermediate Level Players

Suitable for students who have already acquired a working knowledge of chess. The course will focus on methods of attack and defense, on long term strategic planning as well as tactics and combinations. Students will learn useful skills such as pattern recognition, calculating and analyzing. Classroom lectures will emphasize the elements of logical thinking through interactive discussion and instruction.

12) Closing Bell Monday  
Grades 5 & Up 4:30-6:00

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 Closing Bell results at the NYSE and NASDAQ, we will learn the analytical and operating aspects of the stock market. We will begin by evaluating and comparing stocks. We will review our portfolios each week 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!

13) Code Central: Advanced Java Wednesday  
Grades 5 & Up 5:00

This is a course for students with some knowledge of programming and Java. We will broaden that knowledge through lessons about object-oriented design and inheritance plus a wide variety of challenging applications and games. What we learn and do together will be driven by the level of the children's knowledge and desires. Every student will be given a variety of programming challenges to solve. Examples include making games like hangman, battleship, various card games or tic tac toe. Creative techniques are required to solve the change return problem and the calculation of Armstrong numbers in a given range.

14) Code Central: Excel VBA Tuesday  
Grades 5 & Up 5:00

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 student's imagination.

\* Students will need to have a version of Excel running on their computers.

15) Code Central: Introduction to Java

Monday & Tuesday  
Grades 4 & Up 4:00

This course aims to teach the basics of one of the most powerful and wide spread programming languages—Java. You will learn about variables, loops, control structures (if/then logic), arrays and how to write classes. You will learn to think both algorithmically and creatively. We will use Java to calculate PI, and solve problems – for example, did the Indians 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 capital, and how to convert English into Pig Latin. There are no prerequisites other than a desire to learn.

16) Code Central: Javascript Animation and Design

Monday 5:00  
Grades 4 & Up  
Wednesday 4:00  
Grades 4 & Up

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. You will learn how to create variables, loops and algorithms.

17) Code Central: Python

Thursday 5:00  
Grades 5 & Up

This course aims to teach the basics of Python, an object oriented programming language with an easy learning curve. Python is a general-purpose, versatile and popular programming language used by many companies around the world. Students will become familiar with common computer science principles, such as data types (variables, strings, booleans, lists), functions, loops, and conditionals, while building games such as Rock Paper Scissors, Mad Libs, Magic 8 Ball, hangman, and a choose your own adventure game. These coding principles will provide the building blocks for other programming languages in the future.

18) Code Central: Scratch Game Creators

Monday 4:00  
Grades 2-4  
Monday 5:00  
Grades 4-6

Learn coding basics while creating games and animating stories using the online program Scratch. Scratch is a visual programming language and website that uses drag-and-drop blocks to make programming easy and fun to learn. Our young coders will learn computer science skills such as developing algorithms, variables, loops and control structures (if/then logic) while learning to work together, problem solve and think both creatively and logically. By the end of the session students will have created beautiful moving artwork, animated stories and their own video game!

19) Collaging Thursday  
5:00  
Grades 3 & Up

Our artists will create a great masterpiece using the unique process of painting and paper collage. Original drawings of animals, figures or portraits will dazzle when painted and completed with colorful papers from magazines or newspapers.

20) Conversational French Monday  
5:00  
Grades 6 & Up

“Oui, s’il vous plait!” Our discussions will be based on the individual French language proficiency and interests of the students. We’ll build upon grammar and pronunciation through various conversational themes. The interactive format uses a wide variety of mediums will raise the students’ level of confidence in speaking the language.

21) Curious Chefs Make Dinner Tuesday  
4:30 – 6:00  
Grades 1-3

Curious chefs will elevate their cooking into the realm of delicious salads, appetizers, soups, entrees, and desserts. We will focus on seasonal ingredients and foods that can be replicated for the holiday season. Note: A parent or guardian must be on hand to help the student in the kitchen.

22) Cybersecurity 101 Tuesday  
5:00  
Grades 5 & Up

In this rapidly evolving technology environment, everyone needs to be cognizant of cybersecurity and its impact on all aspects of daily life. Cybersecurity focuses on protecting computers, networks, and information from unauthorized access or attacks. Through hands-on activities we will learn to be good digital citizens, best practices for staying safe online and what the future holds for this incredibly popular industry.

23) Dance a Story Monday  
4:00  
Grades K-2

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! The class is active, interactive, and filled with opportunities to create. *Taught by BOLD Arts.*

24) Dancemakers Monday  
5:00  
Grades 3-6

This innovative class blends multiple modern dance techniques and basic dance composition skills that give dancers the tools they need to create their own exciting routines. Dancers expand their understanding of modern dance, build strength and coordination, develop creative problem-solving skills, and learn unique ways to approach choreography. Each performer's unique creative vision is celebrated as they choreograph, collaborate, and create! *Taught by BOLD Arts.*

25) Dash Robotics Tuesday  
Grades 3-6 4:00

Woohoo, meet Dash, a real 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. Students will use Wonder, Blockly, and other apps to create new behaviors for Dash — doing more with robotics than ever possible. 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.

\* Estimated Robot Fee: \$150

26) Digital Design & Engineering with Fusion 360 Tuesday  
Grades 5 & Up 4:00  
Wednesday  
Grades 5 & Up 5:00

Learn to use Fusion 360, the real world digital modeling and engineering program for students who want to learn to design real objects. Fusion 360 is one of the most comprehensive CAD (computer aided design) programs available. Learn 3D modeling and engineering fundamentals and then run simulations to see how your projects would function under real life conditions. All these features are built into the software. You will learn to use Fusion 360's many tools and features and eventually be able to design and test your own products. *Taught by Dazzling Discoveries.*

\* Students must be on a PC or Mac

27) DoodleMatic Game Maker Wednesday & Thursday  
Grades K-3 4:00

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 DoodleMatic Game Maker! All you need to do is draw and then watch your doodles magically come to life as playable games. The students will learn and use the exciting new DoodleMatic App and all of it's editing and Power-Up features! This exciting class will teach children game mechanics and concepts through STEAM and literacy exploration and mini drawing lessons! At the end of the session the students will have a collection of games they created from the stories, characters, goals, worlds, hazards and game challenges developed in class.

DoodleMatic Kit Fee: \$30

\*\* Requires a tablet or mobile device to install the free Doodlematic App

28) Drone Flight School Monday  
Grades 4 & Up 4:00  
Grades 4 & Up 5:00  
Wednesday  
Grades 4 & Up 5:00

Our beginning drone class will explore the various uses of drones. They can be used for delivery, surveillance and security, aerial photography, filmmaking and more. We will discuss safe and responsible drone operation and local laws that apply. The students will then fly their pre-assembled drones using Line of Sight (LOS) techniques. With practice, our new drone pilots will fly through obstacles and learn advanced flying techniques. Each student will take receive their own fully-functional drone.

\* Estimated Drone Fee: \$300

### 29) Drone Racing Simulation League

Grades 4 & Up Thursday 5:00

Our drone racing cadets will train for one of the hottest and fastest growing e-sports in the nation; right in your own home. Once registered and set up, the racers will familiarize themselves with the controller and the online simulator platform. By practicing the course, they will learn racing capabilities and procedures to compete in weekly league races. Throughout the Fall, studentz will have access to tutorials, mentors, workshops, tech support and unlimited simulation racing. As the pilots progress, they can unlock additional courses and drone components to make the racing more challenging and help improve their times. The Drone Racing Simulation League helps students learn drone flying skills while remaining highly challenged and engaged.

\* Estimated Course Equipment, Software License & League Program Fees: \$200

### 30) Dungeons & Dragons: Advanced

Grades 5 & Up Monday 5:00  
Grades 5 & Up Thursday 4:00

Jump right into adventure in this class aimed at students with experience with tabletop roleplaying games. Fight monsters, solve puzzles, and become heroes. This class will use 5<sup>th</sup> edition D&D and a theatre of the mind playstyle.

### 31) Dungeons & Dragons: Introductory

Grades 3 & Up Monday 4:00  
Grades 3 & Up Thursday 5:00

If you can imagine and think of lands and magical creatures, then you can play Dungeons & Dragons. Learn the basics of 5<sup>th</sup> edition D&D and apply them in an adventure. Mysterious places, magical items, and many surprises lie ahead.

### 32) Easy Weeknight Dinners

Grades 4 & Up Monday 4:30 – 6:00

Wouldn't it be fun to take over dinner one night every week? Become a better home chef while helping out your parents in the process. We will create fun and delicious meals such as meatloaf with homemade macaroni and cheese or chicken parmesan and host theme nights such as taco night or make your own pizza night!

### 33) Engineering with Paper

Grades K-3 Wednesday 4:00  
Grades 2-5 Wednesday 5:00

Build amazing projects with one of the most versatile materials available, paper. Explore engineering, architecture and physics while inventing and creating your own toys, games, structures and so much more. You will learn the Engineering with Paper “alphabet” of techniques and how to use that to turn your ideas into projects. Re-using and up-cycling supplies you already have will also be a focus of this class. A supply kit will sent to you. *Taught by Dazzling Discoveries.*

Engineering Fee: \$30

### 34) Escape Room

		Tuesday
Grades	4 & Up	5:00
		Thursday
Grades	4 & Up	4:00

Trapped in a digital breakout room with a group of friends and one way out, you must search for clues and solve several kinds of puzzles and riddles to plot your great escape. When the challenge has been mastered, you will be guaranteed laughter, a sense of accomplishment and a new respect for your classmates and their abilities. Groups will complete a series of escape room challenges together and will then design their own escape room models and games for others to solve. This is an experience that will be remembered for a lifetime... assuming you ever make it out!

### 35) Exploring Creative Writing

		Thursday
Grades	5 & Up	5:00

This class will introduce students to the short story form and get them writing. Students will learn the basic elements of fiction writing such as setting, point of view, conflict, dialogue, and characterization. Students will participate in collaborative and independent writing exercises. Have fun discovering the art of storytelling. Student work will be compiled into an anthology at the completion of the course and all will be made aware of publishing and contest opportunities.

### 36) Exploring Poetry Writing

		Tuesday
Grades	5 & Up	5:00

Students will learn about different types of poetry and creative approaches to poetry writing. They will write poems both independently and collaboratively while being exposed to elements of poetry such as imagery and concrete language, metaphor, rhythm, and rhyme. Have fun learning to explore and play with the power of words and discover your creative voice. Students will be encouraged to submit their work for publication and work will be compiled into an anthology at the completion of the course.

### 37) Extreme Science

		Tuesday
Grades	2-5	5:00

Uncover the science of wild weather, magic tricks, chemical reactions and simple explosions, gems and minerals, fossils, speed and impact, air pressure, and many other exciting topics in this hand-on science program. Through experiments, demonstrations and activities, students will explore scientific principles of the world around them. Each day children design and create projects that incorporate the science theme of the day. A supply kit will sent to you. *Taught by Dazzling Discoveries.*

Science Kit Fee: \$30

### 38) Fantastic Beasts

Grades 3 & Up Thursday  
5:00

Create characters using a variety of art materials, including felted wool (great for making soft cuddly animal buddies), paper-mâché, polymer clay, and more. Learn how to make them come to life and fly, walk, run or swim using stop-motion animation techniques. Construct scenery or import green screen backgrounds to set the stage for your beast's adventure. We will share our sculpture and painting projects in our online art and animation gallery. Bring popcorn for the virtual viewing party at the end of the term!

\*Requires a mobile device with either the free Stop Motion Studio or Pro version (\$4.99) app installed.

### 39) Fencing

Grades 1-3 Monday 4:00  
Grades 4 & Up 5:00  
Grades 3 & Up Wednesday 5:00

En garde! Learn the exciting Olympic sport of fencing - virtually! The students will learn how to parry, cut, and lunge, as they 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!

### 40) Finance "FUN"damentals

Grades 4 & Up Thursday  
4:00

In this engaging class we will learn the basics of personal finance. Through fun interactive games and challenges students will learn financial concepts and terminology. There are always new videogames, cell phones or apps, but how do you set a budget and differentiate between what you want and what you need? We will ask ourselves questions about how to manage our money - if you receive an allowance, how do you decide what to save, spend or share. Learn how to plan, prepare and execute financial goals in this real-life math class where we engage students to think critically and strategically.

### 41) Fortnite the Next Level

Grades 5 & Up Tuesday 4:00  
Grades 5 & Up Wednesday 5:00

Fortnite has taken the world by storm. Join our squad of Challenge Camp gamers as we improve our skills and learn advanced strategies for Battle Royale competitions. Fortnite has been described as a cross between Minecraft and the Hunger Games. The students will refine their building techniques and develop methods for cooperative play and coordinating strategies. We will practice our jubilation dances both on and off screen. Take your game to the next level in a tournament setting and be tested against the Fortnite Master himself, Mr. Geoff to see who can be the ultimate survivor... Good Luck!

**YOU MUST HAVE A CURRENT FORTNITE ACCOUNT PRIOR TO THE START OF THE SESSION**

**\*\* Fortnite is Rated T for TEEN by the ESRB \*\***

42) Fun with Photoshop - Advanced! Thursday  
Grades 4 & Up 4:30 – 6:00

Take your Photoshop skills to the next level. In this class, we will learn how to make professional adjustments to your images utilizing layers, masks and more advanced editing tools. A student should be familiar with Photoshop or have taken “Fun with Photoshop for Beginners.”

43) Fun with Photoshop for Beginners! Tuesday  
Grades 4 & Up 4:30 – 6:00

Photoshop is a powerful and magical program. Together, we will become familiar with all of the tools, filters and applications of Photoshop as a whole. With newly learned techniques and a creative eye, we will begin editing altering and merging photos to get fun, professional results.

44) Glee Wednesday  
Grades All Grades 4:00

Be a musical star in our show choir class as we perform works from various Broadway shows, from Rodgers and Hammerstein classics and Disney musicals to the latest pop songs. The virtual version of this class we will focus on vocal technique, performance practice, stage presence and basic choreography. Songs will be presented and learned together as a class, and there will be opportunities for solo singing with a goal of each student making a video of themselves performing. We will review various recording methods and students will use their own device for their projects.

45) Graphic Novels Wednesday  
Grades 4 & Up 4:00

A picture tells a thousand words, and graphic novels use these representations to tell a story. In this class children will use myths, legends, games, and their original writing and artwork to create a four-page story suitable for publication. Students will learn how to adapt text to a comic style format, to design characters, to create visual environments, and to color their creations as well. The only limit is where imagination stops!

46) Great Fall Bake Off Wednesday  
Grades 4 & Up 4:30 – 6:00

Fall is a great time for baking! There are so many great seasonal ingredients and themes that remind us of autumn. Carrot cake, pumpkin muffins & Halloween themed treats are just a few things that make this season great!

47) Gwenn’s Secret Garden Thursday  
Grades 3 & Up 4:00

Learning to grow plants is a skill everyone should have for a sustainable future. In this class students will learn gardening basics, germination for seeds, pits, and cuttings, hydroponics, harvesting and seed storage, and how to use even the smallest indoor space to grow herbs and edibles. If you have a sunny window and want to grow your own food, this will be an eye opening experience.

#### 48) Highly Logical

Grades 5 & Up Thursday  
5:00

Logic is everywhere! Whether you want to be a doctor, lawyer, teacher, or a major league pitcher, you make use of logical arguments to guide your decision making processes all the time. Develop critical reasoning skills by engaging in a variety of logic games to test your wits. Tackle grid puzzles, cryptarithms, numerical sequences, Sudokus, Ken-Kens, mazes and all sorts of devilish brain teasers. Challenge your friends and family with the puzzles that you create.

#### 49) The Illusionist

Grades 1-4 Tuesday  
3:30

Have you ever wanted to make a coin disappear, read someone else'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

#### 50) The Illusionist 2

Grades 4 & Up Monday  
5:00

Would you like to perform like Criss Angel, David Blaine, and David Copperfield? If you do, this is your chance to discover the magic secrets that these and many other professionals use to baffle audiences worldwide. Join Joseph Fields 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

#### 51) Inventors Workshop

Grades K-3 Monday  
4:00

Makers and inventors wanted. Think it, design it, build it in this hands-on interactive class. Using STEM principals of science, technology, engineering and math, children will learn about "how things work" as they take ordinary supplies and transform them into games, toys and projects. Learn about physics and engineering while inventing and creating. Explore the mechanics of familiar objects and apply the concepts to create projects. A packet of supplies will be sent to you at the beginning of the term. A supply kit will sent to you. *Taught by Dazzling Discoveries.*  
Inventor Fee: \$30

#### 52) Iron Chefs Make Dinner

Grades 4 & Up Thursday  
4:30 – 6:00

Elevate your chefs skills to the next level as we go beyond simple recipes to make more complex appetizers, salads, entrees, and desserts just in time for dinner! Seasonal ingredients will be highlighted whenever possible.

53) Junior Entrepreneur Wednesday  
Grades 4 & Up 4:30 – 6:00

Have you ever wanted to run your own small business and make your own design, plan, price and sales decisions? Students will enter the shark tank and become entrepreneurs building an idea from scratch and ending with a business plan. You'll be challenged from concept to generation of a product or service including marketing, advertising and bringing your idea to reality!

54) Kindfulness Kidz Wednesday  
Grades 2-5 4:00

Explore social responsibility, respect, fairness, trustworthiness, perseverance, citizenship, and kindness with peers as we learn skills not taught in the classroom. Social and emotional skill building is more important than ever and we will focus on mindfulness and empowerment. The class is formatted as a super fun interactive, quiz-show style game where students get to role play, create art, meditate and use their imaginations while building teamwork and connections with others.

55) Kirigami Books Tuesday  
Grades 4 & Up 4:00

Kirigami is a variation of origami that includes cutting the paper. In this class students will focus on making and creating folded and cut Kirigami books from the simplest star book, to the complex flexigon changing picture book. The focus will be on thematic design, and our young artists will manage, master, and refine simple, then complex, skills and techniques. Kirigami books are incredibly fun to make and can be used for anything from book reports to intricate art objects and personalized gifts for loved ones.

56) Kitchen Chemistry Tuesday  
Grades 3-5 4:30

Everything that happens when we cook food is a chemical reaction and many ingredients that we use are chemical compounds. Join us and witness color changes with natural pH indicators such as cabbage juice, make invisible ink from household materials, create a lava lamp, make ice cream without needing an ice cream maker, and separate different pigments from a leaf or a sharpie. Behind all these fun and easy experiments there are fundamental chemistry concepts, including density, decomposition and synthesis, crystallization and polymerization, and reduction-oxidation. We will also learn about physical phenomena such as diffusion, osmosis and chromatography.

57) Machine Learning and Artificial Intelligence Tuesday 5:00  
Wednesday 4:00  
Grades 4 & Up

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 Google's Teachable Machines software which lets you create computer programs that can make decisions based on setting you "teach" it. You can use images, sounds or motions to control the outcome. *Taught by Dazzling Discoveries.*

### 58) Minecraft: Challenge Camp Edition

		Monday
Grades	3-5	4:00
Grades	6 & Up	5:00
		Wednesday
Grades	4 & Up	4:00

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. Students 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. Many 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.

**\*YOU MUST HAVE A CURRENT MINECRAFT ACCOUNT PRIOR TO THE START OF CAMP**

### 59) Mini Space Explorers

		Wednesday & Thursday
Grades	K-2	4:00

Curious about outer space? Want to be an astronaut? Join us for this out-of-this-world class! Students will learn about the solar system, the moon, rockets and more as we journey through the solar system! We will create art based on our intergalactic travels and new knowledge using markers, cut paper and supplies you have at home.

### 60) Mix Masters: The Ones & Twos

		Thursday
Grades	4 & Up	5:00

Have you ever wanted to be the life of the party? In this workshop, students will spin into the fast and exciting world of DJ-ing. 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! For our final project, we will create original DJ sets using music we've collected from each other!

### 61) Model United Nations

		Thursday
Grades	6 & Up	4:30 – 6:00

This course will simulate a Model United Nations club and international conference. Students will be delegates representing countries around the world in order to research and debate geopolitical issues. Students will learn how to write a position paper and the key elements of Model U.N. decorum. At our virtual conference, students will engage in formal diplomatic debate procedures, collaborate on writing working papers, and vote on resolutions. We will send our final resolutions to the U.N. for feedback! Students will need access to a computer as well as Zoom to engage in this course. It is recommended that students also use a headset with a microphone.

62) Mummies, Mt. Olympus and Mosaics: Discovering Ancient Civilizations		Monday
	Grades 1-3	4:00
	Grades 4 & Up	4:00

Explore a different facet of an ancient culture each week: Ancient Egypt, Ancient Greece and Ancient Rome. Gods and goddesses, mythology, art, architecture, pharaohs, emperors & kings, pyramids and temples, and much more will be discussed in this thorough and engaging class. Each day explores a different topic or theme within the ancient civilization, and connections between all three ancient cultures, as well as to our modern life, will be made. Virtual field trips to The Metropolitan Museum of Art to view primary objects and artworks will take place regularly. Small, themed projects will be completed each week. *Taught by Museums with Marisa.*

63) One-man Band: Digital Music with GarageBand		Wednesday
	Grades 4 & Up	4:00

What do your favorite songs all have in common? Chances are they were all made in a recording studio! A "recording studio" can be refer to a fancy, expensive, high-end recording facility, or it can be as humble as your home bedroom. In this workshop, students will learn techniques for creating their own original music on GarageBand. No musical experience is necessary. We will use our combined creativity to produce, arrange, and record original songs. Whether you want to be the next Rihanna, Ryan Tedder, or the person who produces for them, this class is awesome! For our final project, we will add original music to videos we find online.

64) Painting the Masters		Monday
	Grades 4 & Up	4:00

An instructional and magical painting class inspired by the great French masters Paul Cezanne and Henri Matisse. We will create our own beautiful acrylic paintings from studying their different techniques of color, drawing and style.

65) Positive Fitness Training		Wednesday
	Grades All Grades	4:00

In this class we will focus on the importance of fitness, coordination, balance, self-awareness and discipline. Come ready to stretch, move and sweat as Gen leads this special student fitness class with positivity and great energy!

66) Roblox Game Developer		Tuesday
	Grades 4-7	4:00
		Thursday
	Grades 4-7	5:00

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. \* Students must be on a PC or Mac

### 67) Satellite Radio

Grades 3-6 Thursday  
4:00

Tune in to the coolest radio station riding the airwaves. Students will create their own world through a radio show featuring interviews, sports broadcasts, weather and traffic updates, and much more. We will write, produce content, and record original broadcasts. The Satellite Radio crew will even create our own advertisements! This class includes plenty of laughs and fun while we learn. It's hands-on, interactive, fun and educational! As a final project, we will record and release a mock broadcast involving all the components of a satellite radio show!

### 68) Science & Engineering Adventures

Grades K-3 Thursday 4:00  
Grades 2-5 5:00

Is your child a budding scientist who also loves to invent and build? Through experiments, demonstrations and hands on activities, we will explore real world scientific principles and engineering concepts. From rockets to rainbows, animal habits to architectural wonders, each day your child will design and create projects based on the theme of the day. We will have fun while learning about interesting and surprising science concepts and engineering principles. A supply kit will sent to you.

*Taught by Dazzling Discoveries.*

Engineering Fee: \$30

### 69) Sleuth Science

Grades 2-5 Monday  
5:00

Mysteries are all around us, waiting to be explained. Using both scientific and detective skills we will explore the secrets behind how things work. From secret codes and magic tricks to the how and why of chemical and physical reactions, we will uncover the mysteries hidden in our daily lives. Part cool science, part detective wizard, join Sleuth Science for an exciting adventure revealing hidden wonders in the world around us. A supply kit will sent to you. *Taught by Dazzling Discoveries.*

Sleuth Fee: \$30

### 70) Sports Math

Grades 4 & Up Wednesday  
4:00

"Curry for 3... BANG!" He makes it look easy, but does the arc or angle of a shot matter? We often look at sports for socialization, teamwork, athletic training and watching our heroes perform. However, there is a world of math behind the scenes that can predict results and improves an athlete's performance. Learn to calculate statistics for teams and individuals and create formulas used to determine coaching game plans. Explore analytics in everyday sports to determine batting averages, penalty killing percentages, speed calculations and more. Does Lebron James shoot better from the right corner 3 or left? Will Mike Trout hit over 30 homeruns this season? How fast is Serena Williams' first serve? This is a fascinating introduction to interconnected world of math in sports!

71) Stop Motion Laboratory		Wednesday
	Grades 3-6	5:00
		Thursday
	Grades 3-6	4:00

Create short, experimental animations using small toys or your favorite art materials such as clay, pastel, markers, and more. Learn to make your characters defy gravity or take them on an epic adventure using green screen backgrounds. Each week a new animation technique will be demonstrated for students to in their projects. We will share our projects at class meetings throughout the session, culminating with a virtual viewing party to see everyone's films. Bring your popcorn!

\*Requires a mobile device with either the free Stop Motion Studio or Pro version (\$4.99) app installed.

72) Super Science		Tuesday
	Grades K-3	4:00

Explore the why and how of the world around us. Through hand-on science activities and experiments, children will have fun while learning about science in their daily lives. Together we will explore rainbows, gravity, sound, senses, nature, weather, motion, magnetism, outer space, and other real life topics. Each day children design and create projects that incorporate the science theme of the day. A supply kit will sent to you. *Taught by Dazzling Discoveries.*

Science Fee: \$30

73) Test Taking Tips & Tricks: English & Math	Grades 6 & Up	
	Monday	4:30 – 6:00

This course will be designed to give students experience in answering standardized test questions correctly and thoughtfully. Students will learn testing tips and tricks to prepare in English and / or Math. The instruction will provide the tools and confidence to learn how to trouble shoot and problem solve standardized testing questions.

74) Unity Game Designer		Tuesday
	Grades 5 & Up	4:00

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. \* Students must be on a PC or Mac

75) Vive la France!		Monday
	Grades 2-4	4:00

An immersive voyage to discover Paris, historic castles, rich culture and delicious food! We plan and pack for this exciting journey together. We take an airplane to Paris where we stay at a virtual hotel room. Our exciting days discovering France will be filled with adventures such as climbing the Eiffel Tower, visit local pastry shops and take one of the fastest trains in the world to Nice. Adventure awaits!

76) VR Cadets: World Traveler Wednesday  
Grades 4 & Up 4:00

Alright cadets grab your VR goggles, we are going on a trip far, far away. Did you know students just like you are exploring unique places in all corners of the world through Virtual Reality to learn history, art, culture and more. Travel to the Taj Mahal and Machu Picchu, or visit museums in other countries in this VR experience.

\* Requires a VR Headset or Google Cardboard (or similar) with a mobile device

77) Watercolor Wonders Wednesday  
Grades 4 & Up 4:00

A famous watercolor painter said "There is an extraordinary quality in the reflection of transparent watercolor against the white of the paper that is uniquely brilliant and appealing." Learn the beautiful and whimsical art of watercolor painting techniques and create original works of flowers, water, forms, skies and magical sunsets.

78) Who Was History & Improvisation Wednesday  
Grades 3-6 4:00

Inspired by the "Who Was?" book and Netflix series, each month our class will choose a different historical character or event and work together as investigative reporters to explore its secrets. Possible subjects include Queen Elizabeth, Hatshepsut the Crowning of Egypt's First Female Pharaoh, Escapees on the Underground Railroad, Secret Soldiers of the Revolutionary War and more. We'll gather photos, stories, music of the time and collaborate to create a real and imagined live broadcast for an audience of family and friends delivering the fascinating stories and amazing facts about trailblazers, legends, places and events.

79) Yoga & Mindfulness Thursday  
All Grades 4:30

Students 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 mindfulness activities to help all stay present, positive, and happy. Students will create their own yoga-pose deck of cards so that they can continue to practice yoga, breath work, and mindfulness activities.

80) Zoom to Algebra Tuesday  
Grades 5 & Up 5:00

For students that are in pre-Algebra or want to expand their knowledge, Zoom to Algebra highlights essential topics and concepts. Algebra is logical thinking about numbers that can be applied to solving real life problems. We will dive into topics including real number operations, linear and quadratic equations, factoring, and exponents. We can use these techniques as a foray into the lighter side of mathematics using logic, magic squares, Sudoku, cryptarithms and so much more can be achieved with these skills! Join us for a math adventure as we Zoom to Algebra.