## 2017 Summer STEAM Weekly Camp

### Morning Camp 9:30-11:30
Morning Drop off 8:30-9:00
Reading/Meeting Friends 9:00-9:30

<table>
<thead>
<tr>
<th>Week</th>
<th>Morning Camp</th>
<th>Afternoon Camp</th>
<th>After Camp Classes</th>
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<td>July 10-14</td>
<td>Create Your Own Eco System, Java Programming A***, Crime Scene Investigation, Outdoor Multi Sports (select one)</td>
<td>Chemistry Concoctions (select one), Presentation by Design, Golf, C++ Programming A***</td>
<td>Daily Chinese or Spanish &amp; Vocabulary (M, W) &amp; Math (T, TH)</td>
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<td>July 24-28</td>
<td>Design Thinking: Digital Art Studio, Young Writers: Developing Characters, Outdoor Multi Sports, USA Computing Olympiad Workshop A***</td>
<td>Marine Science, Leader in Training, Design Thinking: 3D Animation (select one)</td>
<td>Daily Chinese or Spanish &amp; Vocabulary (M, W) &amp; Math (T, TH)</td>
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<td>July 31-Aug 04</td>
<td>Young Entrepreneur: Businesses Going Green (select one), 3D Modeling: Architecture, Outdoor Multi Sports</td>
<td>Journeys and Exploration, AFA Cyber Patriot, Comic and Cartooning (select one)</td>
<td>Daily Chinese or Spanish &amp; Vocabulary (M, W) &amp; Math (T, TH)</td>
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<td>Aug 14-Aug 18</td>
<td>Digital Filming &amp; Visual Effects, Outdoor Multi Sports (select one)</td>
<td>Computational Thinking without Coding, Painting &amp; Drawing (select one)</td>
<td>Daily Chinese or Spanish &amp; Vocabulary (M, W) &amp; Math (T, TH)</td>
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<td>Aug 21-Aug 25</td>
<td>Creative Web and Blog Design, Chess, Outdoor Multi Sports (select one)</td>
<td>AFA Cyber Patriot (select one), Summer Memory: Scrapbook Making</td>
<td>Daily Chinese or Spanish &amp; Vocabulary (M, W) &amp; Math (T, TH)</td>
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11:30-1:00 Lunch and movie/game time. Hot lunch is available at $5/day.


** There will be $20 extra tuition fee if a student enrolls in Rhythmic Gymnastics camp (full week enrollment is required).

*** Computer Programming Camp (full week enrollment required): —Morning Camp (9:00am-12:00pm) $275 per week. —Afternoon Camp (1:00pm-4:00pm) $275 per week (10% off second Computer Programming camp in the same week)
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Course Description

Week 1: 6/19-6/23
3D Modeling & 3D Printing
Explore the interesting world of 3D Modeling. In the class, you'll learn the basics of perspective scale drawings and how to use 3D software to design. You will also learn how this technology is revolutionizing social progress from rapid innovation in business to formerly unprecedented breakthroughs. This class will engage students in conceptual and practical spatial problem solving and precise geometric formulation.

Machines in Motion: Trebuchet
Students will explore the physics and construction of machines and engineering gadgets to build their own Battleship machines, in particular, Trebuchets. In this camp, Students will gain skills in engineering, creativity, and collaboration.

Week 2: 6/26-6/30
Rocketry & Space Simulation
Our society lives in the commercial space age. In 2015, it was speculated that, "the first person who will walk on Mars is currently in 3rd grade." Humans are developing systems for space tourism, asteroid mining, reusable rockets, nuclear propulsion, and self-assembling structures for colonizing the moon and other planets. The people who brave the next frontier will be specialists and highly trained professionals unlike any before. In the same way that over the decades, computer programming transitioned from obscure science to a common children's activity so too will rocket science.

The inGenius Rocket Science Summer Camp is designed to proliferate a student's imagination about the practice and theory of space exploration and the vehicles that will take us there. This course will teach students the vocabulary and math behind rocket thrust and orbital trajectory. Students will create and test motion hypothesis using model rockets and they will explore rocket building and space travel using the rocket simulation software.

Under the Microscope
Students will learn scale and size and proper use of microscopes. Students then examine and compare one-celled and multi-cellular organisms. One of the topics will include cell structure, nutrient needs, and growth. Students will learn to appreciate the complexities of familiar things such as newsprint, fibers, or blades of grass. They develop laboratory skills including staining, and DNA extraction. They will also explore the various ways microscopes are used in the fields such as forensic science.

Week 3: 7/03,05,06,07
American Revolution
The struggle for independence is more than charts, trends, and abstract academic theories. Each day of camp is dedicated to a different aspect of the American Revolution. The students will learn about a concept of the American Revolution and participate in an activity designed to bolster each lesson. Re-live that great and arduous struggle for liberty and bring the American Revolution alive!
Represent Me!
Through simulations and games, students will learn and practice civic duties, democracy, politics, check and balance. They will assume positions, at different levels of governments, of legislator, executives, judges, juries etc. They will be challenged with diverse opinions and demands of voters and constituents of various backgrounds.

Makers engineering
Using both LittleBits blocks and hands-on experiments, kids learn about electrical engineering, structural design and space flight. It’s a chance to introduce kids to a wide range of science subjects while exploring the theory behind electronics, architecture and flight.

Design Thinking: Virtual City Design
This is a fascinating class that, through computer games, will introduce the thrill and hardships of creating and maintaining a real city. No more messing with paper, scissors and glues. Through simulation, Students will engage in urban planning by controlling your own roads, public services, transportation and more. You’re only limited by your imagination, so take control and reach for the sky!

Acrylic & Water Color
In this camp, students will have a blast painting with acrylics and watercolor. They will create paintings on canvas and watercolor paper and learn about color theory and different painting techniques. Students will also learn best studio practices, including how to choose and protect supplies. Your young artists will fill your home with unique and beautiful artwork by the end of this week.

Week 4: 7/10-7/14
Create Your Own Eco System
An ecosystem encompasses all the living things in a designated area. That means animals, plants and any other organism, and it also includes the environment they live in. The cool thing about ecosystems is when so many things combine into one. The elements of a sustainable ecosystem play off one another for survival. In this class, student will learn and create their own ecosystem. This is a perfect boot camp for our young ecologists and biologists.

Crime Scene Investigation
Campers will learn to become Crime Scene Investigators during actual crime scene setups! Campers will learn how law enforcement professionals solve crimes. Campers will learn how a crime is actually solved and learn how Biology, Chemistry, and Physics play a major role in the investigation! Sample Projects: Crime Scene Analysis, Blood and Fiber Analysis, Handwriting Analysis, Fingerprinting, and DNA Analysis!

Chemistry Concoctions
It is time for Glues, Brews and Goos! From our stock pile of hundreds of recipes and formulas, we have chosen our top favorite chemistry activities. Campers will love digging into and examining the results of these crazy chemical concoctions! In addition: Campers will create several other wacky, wild and crazy concoctions! Campers will also realize the importance of measurement and sequencing, especially as they create some edible experiments

Presentation by Design
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You never get a second chance, to make a first impression! This camp teaches hands-on discovery of all the elements of a successful presentation: your message, storytelling, visuals and oratory. This camp provides a quick guide for creating your own presentation from scratch, or improving an existing one, using the 10-step Extreme Presentation method. The Extreme Presentation method takes a marketing approach to presentation design: focusing on how to “sell” your ideas to your audience. In this week kids will learn how to use different tools like PowerPoint, Prezi to make eye-catching presentation.

**Week 5: 7/17-7/21**

**Data and Probability**
Students develop a fundamental understanding of probability and statistics through fun activities and real word examples. Students will work with both first-hand and second-hand data. They will to conduct experiments and surveys. They will also obtain data from newspapers and journals. Using the data, they will generate graphs, charts, and tables to discover patterns, draw conclusions and make predictions.

**Physics Science**
This camp covers similar topics as Fun with Physics but with more advanced activities. Students will learn about how energy is generated, and will experience concepts of physics!

**Debate**
Too many students have something to say but do not have the tools to speak in public effectively and with comfort. Sharpening communication abilities helps students succeed in a world that demands confidence, articulation and the ability to clearly communicate ideas. By building superior speaking skills, students will be prepared to excel in school, attain their dream jobs, defend their beliefs and values, and become leaders in their communities. This camp will be an emphasis on oral communication as well as writing skills in this course, arguing the topics of the day.

**The Ancient World**
Students will study the richness and diversity of ancient cultures that have lasting impacts on today’s world. They will examine the daily life, religions, governments and economies of the ancient civilizations. They will also explore myths, legends, and arts. Some of the interesting topics may include Greek mythology, pharaohs’ pyramid and dragons of Chinese emperors. Through group work and individual research, they will acquire critical-thinking and research skills.

**Multi Media: Explorations in Arts**
Working in a variety of mediums of Visual Arts, young artists will experiment with paint, collage, found objects, and natural materials. They will develop their skills and artistic expression.

**Week 6: 7/24-7/28**

**Design Thinking: Digital Art Studio**
This course help students builds skill to generate, from scratch quality images of varying subject matter. Lesson on drawing techniques will be given to allow the project content to come fluidly from the student, as the content becomes a creation of their own design. A more in-depth experience on what it means to truly create without the accompaniment of premade images or in the least use premade images with advance modification to fit the students work. Students will develop necessary creativity skills to allow for greater creative vision and planning.

**Young Writers: Developing Characters**
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Students will crucially examine the hero and villain across cultures and time. Students will investigate the hero and villain’s journey and explore the cultural purpose such characters. Activities includes close reading, group discussions, and writers’ workshops. Students will practice analytical skills and critical thinking skills to read and respond thoughtfully to a variety of texts.

Marine Science
This camp offers an exciting avenue into the oceans of our world. Through a blend of engaging education and hands-on fun, kids will discover a passion for marine biology. Whether your child simply enjoys animals or thirsts for an adventure in the seas, a marine science camp could be just what you’re looking for.

Leader in Training
Leadership Camp is where the campers will learn the characteristics of a good leader while being team players. We encourage our campers to become strong independent leaders and thinkers through challenging activities. Through friendship, workshops and encouragement, we help build positive values and to provide growth to prepare them for roles as leaders. Through our programs, we aim to help children develop: Responsibility, self-respect, curiosity for learning and an eye for caring for others.

Week 7: 7/31-8/04

Young Entrepreneur: Businesses Going Green
Business going green is worthwhile and potentially good for the bottom line. Explore the profitable side of going green, and learn how to distinguish between what’s hype and what’s hip. Students will also practice critical thinking by envisioning counter arguments others might offer and considering how such opposition might be rebutted.

3D Modeling: Architecture
Explore the interesting world of architecture & 3D Modeling. In the class, you’ll learn the basics of perspective and architectural scale drawings and how to use 3D CAD software to design your dream house. You will also learn how this technology is revolutionizing social progress from rapid innovation in business to formerly unprecedented technology breakthroughs.

Journeys and Exploration
Students will follow famous explorers, such as Marco Polo, Zheng He, Hernán Cortés, around the world for fame, for wealth or just out of curiosity. They will also examine the impact of their expeditions on the indigenous societies. Students will also plan and conduct their own virtual explorations in groups. They will research a specific region’s culture, politics, history, and environment before and during the explorations to appreciate the diversity and commonalities of places and people around the world.

AFA Cyber Patriot
We partnered Air Force Association’s Cyber Patriot program to bring Cybersecurity to inGenius curriculum. The course is designed to increase students’ awareness of online safety and cybersecurity principles. The class consists of multiple fun and interactive learning modules. Given the increasing presence of the Internet in society, the program also aims to help students understand the widespread importance of cybersecurity in their everyday lives and equips them with skills to help better protect themselves on the Internet.

Week 8: 8/07-8/11

Rocketry & Space Simulation
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Cuisine Art: Cooking around the world
Let the cooking extravaganza begin! Create delicious food inspired by cuisine from around the world. Culinary campers have an absolute blast learning to cook. They gain the confidence to take their new skills and knowledge home to cook for their families and friends. Here is a taste of what our culinary campers will accomplish during this week: create appetizer, salads, entrees and desserts; learning to use a wide variety of ingredients; cook according to daily themes, learn basic kitchen safety.

Minecraft Game Design
Students team up to customize their own Adventure Maps and shape their own gameplay experience. Students strategically tailor unique biomes that provide players with challenges and rewards, utilize Redstone to create secret passageways, traps, access points, build safe havens with resources that help players move successfully throughout the game, and install mods that allow Students to create very distinct qualities within their Minecraft™ game.

Marketing: The Art of Sales
Student will learn the effective marketing campaigns using art, creativity and scientific approach. They will focus on “how to close the deal”. Among many topics, they will study how a customer’s interest is generated and how to make their products stands out in a competitive environment? One of the activities will be students using various objects from around the classroom and take turns trying to sell the item to a 'buyer'.

Week 9: 8/14-8/18
Digital Filming & Visual Effects
Newly revised and more exciting than ever, campers learn the science behind Hollywood’s special effects. This class covers the fundamentals and creative aspects of filmmaking and animation, including storyboarding, special effects, sound manipulation and editing.

Computational Thinking without Coding
We will teach Computer Science through games and puzzles with cards, string, crayons and lots of running around. These activities will introduce students to Computational Thinking through concepts such as binary numbers, algorithms and data compression. Importantly, no coding is needed.

Week 10: 8/21-8/25
Chess
The program includes chess instruction at multiple levels with an emphasis is on the joy of the game. Starting with simple problems to illustrate key concepts, and then moving to more intricate positions, the student will learn by playing. They will be able to integrating new information with previous knowledge while building effective thinking habits.

Creative Web and Blog Design
Design your own web site and start your own blog in a week! This class teaches basic elements of HTML, CSS and WordPress. It also teaches students how to create blogs to share ideas.

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Summer Memory: Scrapbook Making
Cool down with final farewell week. Collect the summer fun photos, along with few sentences description. Enjoy looking back at all of your favorite wonderful summer memories for years to come. Our DIY scrapbook camp is perfect for your treasured photos of your special memories.