

5th/6th Grade BASE Camp

Advanced Experimentation Station

1-week session. Science is a messy business! Conduct hands-on experiments with items gross and gooey, stinky and surprising. Power a boat with baking soda, create a giant carbon snake out of sugar, blast off with balloon rockets, whip up a batch of heat-sensitive color-changing slime. Hypothesize about the science behind the reactions you see, and create a lab book of experiments you can recreate at home. **Week 3**

Biking Adventures

1-week session. Ready for a daily biking adventure? In this camp each day features a new theme, route and unique stops around the Oak Park area. We'll learn and practice bike maintenance and biking safety as we hit destinations such as Thatcher Woods, local cafes and recreation areas. Sign up with a friend and get ready to make new friends - it's time for a summer riding adventure! *Required daily items include a road-ready bike with gears (no dirt bikes), spare inner tube, bike lock, helmet, snacks, water bottle and closed-toe shoes. Prompt arrival is a must, and bikers ride rain or shine (although not during thunderstorms). Bicycles should be inspected and tuned up at a local shop before the start of camp. Weeks 1- 6*

Cardboard City

1-week session. Design and construct a small-scale city with upcycled cardboard, and give all those shipping boxes a second life. Put on your urban planner hat and determine the essential parts of a successful community. Learn about the structural properties of different types of cardboard, from corrugated boxes to paperboard cartons. Then use this expertise to engineer and assemble buildings and structures for a preschool play area cardboard city. All design, engineering, and construction will be camper-led. *Content will be the same each session. Weeks 4 & 5*

Carnival Game Maker

1-week session. Do you enjoy playing skee-ball, ring toss, and other games of chance? Take your hand at designing and building your own versions of popular carnival and boardwalk arcade games. Flex your maker muscles as you turn recycled materials, LEDs, motors and

Carnival Game Maker cont...more into interactive games large and small. Add the finishing touches, then invite your family and friends to test your creations at the end-of-week with a DIY carnival extravaganza. *Content will be the same each session.*

Week 2

Chess *NEW

1-week session: Bring your A-Game for this new camp! Activities include learning openings, tactics, endgames, studying master games, playing games against fellow campers, and analyzing other camper's games. This camp will conclude with a tournament. Campers will learn chess fundamentals and strategies that enhance learning skills and critical thinking. Beginner, novice and experienced players are encouraged to sign up as we'll group campers according to skill level. **Week 1**

CYC Sailing (5th-8th)- FULL DAY *SCHOLARSHIP ONLY* NEW

Chicago Yacht Club Foundation is partnering up with BASE Camp this summer to offer this program to our campers receiving scholarships. Camp consists of kayaking, stand-up paddle-boarding, sailing on our 23' Sonar Keelboats, and marine-based STEM education and takes place in Belmont Harbor. Limited space available and this camp is only for campers who receive scholarships from OPEF. *Daily bus transportation to and from Julian Middle School will be provided. In partnership with the Chicago Yacht Club Foundation. Week 1*

Film Making *NEW

1-week session. Ready, Set, Action! Join us for this new camp, where campers will get a snapshot of the filmmaking and content creation process. In just a week, campers will make a short film, and learn how to write, shoot, direct, and edit their own unique content! Campers will work in rotation on writing, editing, and shooting, learning essential skills such as directing, basic screenwriting structure, basic camera, and lighting skills, as well as the basics of editing and post-production workflow. *Content is the same each session.*

Weeks 5 and 6

Frisbee Physics

1-week session. Learn STEAM concepts such as force, velocity, pitch, angle, gravitational pull, lift, drag, angle and buoyancy. Students will predict the flight path of a frisbee and test their predictions. We will take our physics lesson to the field and work on playing Can Jam, Frisbee Golf and Ultimate Frisbee. *Content will be the same each session.*

Weeks 1 and 3

Graffiti Art ***NEW**

1-week session. Explore hip-hop culture through visual and poetic art. Learn about your relationship with the natural environment through indigenous folktales, then merge your wisdom with fine art and graffiti art skills. Practice calligraphy, discover the tenets of graffiti writing, and create a unique lettering style of your own. End the week creating a mini-mural with acrylic and non-toxic spray paint which incorporates poetry and collaged images into a narrative promoting environmental stewardship and cultural appreciation. This camp presents hip-hop arts as a vehicle for self-empowerment and community beautification. *Content will be the same each session.*

Please dress for a mess.

Weeks 3 and 4

Green Avengers

1-week session. Put on your green cape and become a superhero for Planet Earth! There is so much to learn about what it takes to make our planet more sustainable--from healthy soil and biodiversity to recycling and alternative energy--and this is the camp to help you dig a little deeper. Design a mini green roof. Build a model of a food system. Watch what happens inside a worm composting bin. Create your own solar-powered machine. Through hands-on projects and field trips, you will discover what you can do to make a difference.

Week 3

Hovercraft Discovery

1-week session. Experiment, build, and play in the world of Hovercraft science! Learn how hovercrafts move and travel on air by applying Newton's Law of Motion and scientific properties of pressure and lift. Start with a simple balloon hovering prototype and then move on to constructing a mini floor cruising model of a hovercraft racer! By the end of the week, you'll understand the mechanics of flight, as well as the fun in exploring hovercraft dynamics. *Content will be the same each session.* **Weeks 4 & 5**

Intro to VEX Robotics

Two-week session Using the V5 VEX Robotics Design System, students will work in small groups to build robots and participate in competition challenges. Our staff will guide the students through the robotics build and competition process so that kids can experience the joy and fun of robotics while learning programming and engineering concepts. VEX is an ideal platform for students to explore important STEM concepts. This is a great opportunity for those with no experience so they can be ready to join the robotics club in middle school! *Please note that this camp meets at Julian Middle School.* **Pre-Week June 10-14 and Week 1**

Island Discovery: Poetry/Writing ***NEW**

1-week session. Each camper will create an island out of air-dry dough to use as their 'muse' for their adventure story. They will include at least 5 landforms as points of interest in their stories. We will look at how to write a great opener and we will work in small groups to give positive feedback after each chunk of our writing. Along the way we will also write some poetry inspired by islands and nature. After the island models are finished drying, the students will paint them. By week's end, our goal will be to have written a good adventure story and try out several forms of poetry. **Week 2**

5th/6th Grade BASE Camp

Jumpstart Robotics/Girl Power! Robotics

1-week session. Jumpstart your journey into the world of design and technology! Using barcode programs and drag-and-drop software, this camp will explore fundamental robotic concepts and inspire improvisation, creativity and teamwork. Instructor Paula Spring. *Content will be the same each week, but campers could repeat the camp and try new challenges. Note about the Girl Power Week: Our goal is to encourage girls to feel more confident in the world of robotics by providing an environment that focuses on their active participation. The camp is open to all, but would be especially welcoming to campers identifying as female or non-binary.*

Weeks 1, 2 & 3

Lift Off! Aeronautics

1-week session. Investigate and test the dynamics of flight by building different aircraft models and learn first hand about combustion and trajectory by launching your own rockets. Investigate physics concepts such as energy conservation, buoyancy and the forces of flight. During the week you'll design, build, and test airplanes, rockets, Chinese lanterns and more. The sky's the limit as we explore the science of aeronautics. *Content will be the same each session.*

Weeks 4, 5, 6

Makers Lab (5th-6th) *NEW

1-week session. Welcome to the Makers Lab – a thrilling adventure where young minds come together to unleash their creativity and engineering prowess! This camp is an immersive experience where campers dive into the world of engineering by building exciting projects using recyclable materials. Join us for a week of innovation, laughter, and unforgettable memories! *Content will be the same each session.*

Weeks 2, 4

Manga Mania

1-week session. Use your ANIME-gination to create those awesome Manga characters, creatures, and beasts. You will learn how to take an idea or sketch a character, and develop it into a stylized, colorful, animation-ready rendering. Learn the basics of animation techniques and bring your designs to life. The possibilities are endless as

Manga Mania, cont....you begin the journey of character design and animation exploration! *Content will be the same each session. Weeks 5, 6*

Minecraft Create

1-week session. Join fellow campers to explore architectural and urban planning endeavors through Minecraft. We will collaborate to build a fully functioning city, balancing all necessary construction while respecting the landscape and environment around us. You will build your own homes and then move on from there, developing food and water sources, schools, parks, while overcoming fun challenges, all within a secure Minecraft world. *Previous experience with Minecraft is helpful, but not necessary. Content will be the same each session.*

Weeks 1, 2, 4, 5

MINDSTORMS Robotics

1-week session. Imagine how you could change the world with a robot to command. With Mindstorms, you'll be on your way. Work as a team to complete projects and games created specifically for EV3. New to robots? Not a problem! Through the engineering design process, you will gain the skills needed to build and program robots and understand how technology works in real-world applications.. *You may register for multiple sessions; you can take on new challenges with each. Weeks 5, 6*

Mythical Magical Art

1-week session. Unicorns! Dragons! Mermaids, fairies and wizards! Let your imagination soar as you create art inspired by mythological creatures. Fabricate an enchanting vessel to store artifacts and specimens of your own creation. Invent and artfully record your creatures' habitat, diet and other distinctive characteristics. Craft otherworldly fur, hair or skin samples. Other artifacts you might make include a magic scepter or special potions. All art is possible in the fantastic world of the mythological.

Week 2

Orbit Robotics with Sphero

1-week session. Forget summer brain drain! Sphero BOLT packs a whole ton of fun in its sphere shaped bot. More than just a robot toy for kids, this programmable robot will help you learn how to code while completing fun and engaging activities! Campers will engage in fun and hands-on learning that flex their critical thinking, creative confidence, teamwork experience. From learning about speed and distance calculations, sensors, and coding through its drag and drop program that converts to JavaScript so you can see your work progress. We may even be able to play a group game of soccer with these bots! *Content will be the same each session. Weeks 1, 2*

Outdoor Escape Room

1-week session. Head outside and experience the best elements of escape rooms, classic treasure hunts and geocaching into one fast-paced week of adventure! Working cooperatively in small groups, you will use math and science skills combined with logic, compass/directional skills and community knowledge to unlock clues that will help you escape a looming disaster. Along the way, prevent a zombie invasion, locate a long-lost formula and create your own outdoor escape/scavenger hunt challenge. *Weeks 3, 4*

Printmaking Discovery

1-week session. Design, play and experiment with an introduction to relief printmaking: monotypes, block prints, mini screen prints, and more. Work individually and collaboratively to create one-color and multi-color prints. Explore many different printmaking techniques, from stamping to making your own printing plates, and experiment with gelli printing. We will also look at ways different artists use printmaking in their work. *Content will be the same each session. Dress for mess! Weeks 4 & 5*

REACH Sailing (5th-8th)

1-week, full-day session. Learn to sail on Lake Michigan and explore the science, technology, engineering and math that sailors use every day. We'll take a bus each morning to the Columbia Yacht Club. Using REACH, US Sailing's STEM education curriculum, answer questions

REACH Sailing, cont...like: How does this boat float? What does geometry have to do with sailing? Does the wind pull or push a sailboat? Half your day will be spent inside the yacht club doing hands-on, sailing-related STEM activities, and the other half out on the lake on a J/22 sailboat with a US Sailing-certified instructor and five campers per boat. Campers will be grouped by grade, 5th/6th and 7th/8th. *Content will be the same each session. Price includes lunch at the yacht club plus daily bus transportation to and from Julian Middle School. In partnership with the Columbia Yacht Club. Pre-Week, June 10-14*

Science of Sweets

1-week session. Studying sugar sure is sweet! In this camp you'll take a close look at the delicious science of sugar. Examine how temperature influences crystal formation and see first hand how science works to create different textures in sucrose. Density, saturation, and dynamic equilibrium are just a few terms you'll explore while experimenting to make glass, rock, gummy, slimy and spongy sweets. *Content will be the same each session. Note: All ingredients will be nut free. Weeks 3, 4*

Shoe Drip - Apparel Art

1-week session. Let your creativity up your wardrobe game. Have you ever looked at a pair of sneakers or other duds and wished you could add that one thing to make it your own design? Embellish and customize your own gear. Start with a bandana or canvas bag, then bring your shoe art to life with paints, bling, or other materials. Walk out with your own unique pair of footwear. Please note that this camp is slightly more expensive (+\$10) to account for increased materials costs. *Content will be the same each session. Please dress for a mess. Weeks 1, 2, 6*

Spoken Word ***NEW**

1-week Session. Spoken Word camp is designed for writers of all levels to try their hand at poetry in the space of a supportive community. Together, we will read, watch, and listen to powerful poems; explore a variety of forms. We'll learn about techniques that can enhance our message and, most importantly, consider how poetry can help us share our voices and visions with the world. At the end of camp, participants will walk away with an original body of work as well as a deepened understanding of poetry honed through thoughtful peer review and instructor feedback. **Week 6**

Treehouse Design with Green Architecture

1-week Session. Create your own treehouse model and learn about sustainable architecture principles! Let's have fun imagining and sketching what your treehouse looks like and how it feels to be inside of it. Then let's think about your building materials and floor plans. You will learn about green architecture principles and fun ways to incorporate them into your treehouse designs. We will look at using recyclable materials and learn about renewable energy sources - such as the sun and the wind. Use cardboard, popsicle sticks, string, and other recyclable materials to build a treehouse model to learn about solar energy by creating your very own mason jar solar lamp. This promises to be a fun and engaging week for you architecture enthusiasts! *Content will be the same each session.* **Weeks 3, 4**

VEX IQ ***NEW**

1-week Session. Come try out some new hardware with this VEX IQ system! We'll work in small groups to design, build and test our creations, with a new challenge every day. This is a fun opportunity for campers to level up their engineering skills, conquer a new design and expand their coding knowledge. Great for beginners who want to learn or campers who are more advanced, come check out VEX IQ and see what you can do! *Content is the same each session.* **Weeks 5, 6**

Zines ***NEW**

1-week Session. Zines are self-published magazines full of things the author is passionate about– the sky's the limit to what we can create!. In this camp, we will look at a handful of zines and study a bit of the history of zines. Using a variety of creative prompts, campers will write, draw, paint, use textiles and found items to create their own zine. Join us in the creative process! *Content is the same each session.*

Weeks 1 and 2