

# RANDALL MUSEUM SUMMER CAMPS 2021

## Art, Science and Technology Day Camps

**Day camp sessions are three weeks long** and include a daily **morning workshop, supervised lunchtime (campers bring lunch), and an afternoon workshop**. Sorry, partial attendance is not available. It is mandatory for campers to attend each week of camp and both morning and afternoon workshops. Hours are Monday – Friday, 9:00 AM – 3:00 PM.

### Session 1: June 14-July 2, cost \$1200

Ages 6-7 \$1200/person (code <a href="#">28209</a> )	Ages 8-9 \$1200/person (code <a href="#">28210</a> )	Ages 8-9 \$1200/person (code <a href="#">28211</a> )	Ages 10-12 \$1200/person (code <a href="#">28212</a> )
<p><i>Morning:</i> <b>Young Naturalists</b> Have you ever touched the scales of a snake, followed the pawprints of a coyote, or heard the call of a Swainson's Hawk? Would you like to get up close and personal with some of California's native wildlife? In this workshop, we'll learn how to listen and where to look (using our own handmade binoculars!) when observing wildlife. We will record our observations, thoughts, and sketches in our own handmade nature journals. And we'll learn how to use our knowledge and passion to help protect and improve our environment, becoming empowered stewards for California's natural resources. Instructor: Sarah Bowser</p>	<p><i>Morning:</i> <b>Mixed Media Magic</b> Take a fresh look at art and making in this media rich adventure. Cardboard construction, stitching, painting, printing—wood, wire, yarn, found objects, fabric—everything is fodder for our creative mixed media explorations. We'll try our hand at toy making, get inspired by the Randall Museum's resident animals, and gather materials, inspiration and energy from the outdoors. Instructor: Sarah Watanabe</p>	<p><i>Morning:</i> <b>Eco Artists</b> Want to make the world more beautiful while also saving the planet? Love to play outside? Then Eco Artists is the workshop for you! Let your inner artist and your inner scientist come together to create beautiful and functional objects from sunlight, plants, wind, rocks, recycled and found materials. Dream catchers? Bird feeders? Solar ovens? Wind chimes? Who knows what we'll discover and make. Instructor: Dorothy Phillips</p>	<p><i>Morning:</i> <b>3D Printed Robots: Design, Build, Drive</b> Build the epic robot only you can imagine! Using 3D design software TinkerCAD, you'll develop your unique Robot design, and then 3D print your robot's body parts using our MakerBot printers. You'll learn about motors and circuitry and soldering to build your robot and remote control from scratch. Get hands-on with the build out: soldering circuits &amp; parts, drilling, gluing and whatever else it takes to build your robot. The last day, we'll have robot obstacle courses, robot battles, and other robot games. At the end of camp, students will keep their fantastic, one-of-a kind robot. Instructor: Joel Dream</p>
<p><i>Afternoon:</i> <b>All Hands On Art</b> Anything goes in the Art Room! Use your creative license and get your hands busy in a world of materials. Wood, wax, paper, cloth, clay, sand and more—we'll build, mold, paint, splash, rip, smooch, smear, mix and make masterpieces—just for the fun of it! Be prepared to get messy, use your imagination and flex your creative side, as you craft your own creatures, pets, puppets, monsters, miniature worlds and more. Instructor: Sarah Watanabe</p>	<p><i>Afternoon:</i> <b>Creatures and Careers</b> Would you like to explore a tide pool like an ichthyologist, scan the desert for reptiles with the eyes of a herpetologist, and watch the skies for birds with the skills of an ornithologist? This workshop introduces you to many amazing careers that involve animals of all shapes and sizes. With the help of the Randall's resident animals and native wildlife found on the museum grounds, you'll study many different kinds of animals and record your findings in your own hand-made science journals. Examine the claws on a tarantula's foot and learn how they taste the world around them. See the details in an owl feather and learn how owls fly so silently. Feel the scales of a snake, and learn how they hunt with just their tongue. You'll learn how to identify native wildlife, practice basic research methods, and you might even find the answer to that inevitable question: "What do you want to be when you grow up?" Instructor: Sarah Bowser</p>	<p><i>Afternoon:</i> <b>Makey Makey Inventor Lab</b> Are you curious about electronics? Would you enjoy turning your friends into piano keys, making your pencil sing or turning your stuffed animals into doorbells? We'll work on fun projects like these using Makey Makey, an electronics invention tool that lets us connect ordinary objects to a computer, and then make them do unusual things! Along the way, we'll learn about circuits, sensors and even a bit of programming. Instructor: Joel Dream</p>	<p><i>Afternoon:</i> <b>Eco Artists</b> Want to make the world more beautiful while also saving the planet? Love to play outside? Then Eco Artists is the workshop for you! Let your inner artist and your inner scientist come together to create beautiful and functional objects from sunlight, plants, wind, rocks, recycled and found materials. Dream catchers? Bird feeders? Solar ovens? Wind chimes? Who knows what we'll discover and make. Instructor: Dorothy Phillips</p>

**Session 2: July 6-July 23, cost \$1120 (no workshop 7/5)**

<p align="center">Ages 6-7 \$1120/person (code <a href="#">28213</a>)</p>	<p align="center">Ages 8-9 \$1120/person (code <a href="#">28214</a>)</p>	<p align="center">Ages 8-9 \$1120/person (code <a href="#">28215</a>)</p>	<p align="center">Ages 10-12 \$1120/person (code <a href="#">28216</a>)</p>
<p><i>Morning:</i> <b>Arts &amp; Crafts, Naturally</b> Do you love to play outside? Do you love to explore? Do you love to make things? Then this is the workshop for you! We'll wander the hillside around us, gathering materials from nature. We'll gather up found and recycled materials. And we'll use all of these to craft awesome bird feeders, leaf monsters, dream catchers and more! Instructor: Dorothy Phillips</p>	<p><i>Morning:</i> <b>Rocketmobiles</b> Blast off your own flying rocketmobiles! Design and build unique launchable rockets that shoot, race and roll. Make a monster truck that actually flies. Work with tools to take stuff apart, reshape materials, and rebuild into your own imaginative designs. Experiment, test, tinker, and play. Build spaceships that light up, flying rocketmobiles and even airborne astronauts—all rocket powered! Instructor: Blu Fahey</p>	<p><i>Morning:</i> <b>Creatures and Careers</b> Would you like to explore a tide pool like an ichthyologist, scan the desert for reptiles with the eyes of a herpetologist, and watch the skies for birds with the skills of an ornithologist? This workshop introduces you to many amazing careers that involve animals of all shapes and sizes. With the help of the Randall's resident animals and native wildlife found on the museum grounds, you'll study many different kinds of animals and record your findings in your own hand-made science journals. Examine the claws on a tarantula's foot and learn how they taste the world around them. See the details in an owl feather and learn how owls fly so silently. Feel the scales of a snake, and learn how they hunt with just their tongue. You'll learn how to identify native wildlife, practice basic research methods, and you might even find the answer to that inevitable question: "What do you want to be when you grow up?" Instructor: Sarah Bowser</p>	<p><i>Morning:</i> <b>SMART Robots Using Arduino</b> Build an intelligent robot that you can control wirelessly—a smart robot that can sense and respond to its environment. Using Arduino microprocessors and 3D design software TinkerCAD, you'll develop and build your own responsive Robot design. You'll create circuits, program sensors and actuators. You'll get hands on experience with electronics, soldering, programming, coding, mechanical design and more. At the end of the course, everyone will keep their fantastic, one-of-a-kind robot. Instructor: Joel Dream</p>
<p><i>Afternoon:</i> <b>Castles and Dragons: Art, Design and Engineering</b> Build epic castles, moving drawbridges, catapults, and magical creatures that move, spring into action and light up! Have fun designing and building swords, shields and even a flying dragon! Ignite your imagination and hone your thinking and making skills as you learn to solve design and engineering challenges. Instructor: Blu Fahey</p>	<p><i>Afternoon:</i> <b>Eco Artists</b> Want to make the world more beautiful while also saving the planet? Love to play outside? Then Eco Artists is the workshop for you! Let your inner artist and your inner scientist come together to create beautiful and functional objects from sunlight, plants, wind, rocks, recycled and found materials. Dream catchers? Bird feeders? Solar ovens? Wind chimes? Who knows what we'll discover and make. Instructor: Dorothy Phillips</p>	<p><i>Afternoon:</i> <b>3D Printing Extravaganza</b> Explore the awesome world of 3D printing and modeling! You'll start right in, designing and building your own simple three-dimensional objects in TinkerCad, a 3D modeling program. Then you'll export your files to our MakerBot Replicator 3D printers, and learn how to finish and refine the printed objects. Your creative, design and digital skillsets will expand as you refine your designs through prototypes and revisions. Instructor: Joel Dream</p>	<p><i>Afternoon:</i> <b>Citizen Scientists</b> With the guidance of an experienced naturalist and advice from animal experts, Citizen Scientists will conduct their own research to learn about the plants and animals of Corona Heights. When we aren't outside collecting data, we will be getting up close and personal with some of the museum's resident animals. Have you ever wondered what a barn owl eats? Let's dissect an owl pellet and find out! Have you ever wanted to help protect native plants? Let's remove some invasive ivy and learn how to repurpose it! As a Citizen Scientist, you'll create your own journal to record your findings, learn how to document which plants are found where, and monitor the wildlife that call the museum's 17-acre grounds home. Instructor: Sarah Bowser</p>

**Session 3: July 26-August 13, cost \$1200**

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<p><i>Morning:</i> <b>Castles and Dragons: Art, Design and Engineering</b> Build epic castles, moving drawbridges, catapults, and magical creatures that move, spring into action and light up! Have fun designing and building swords, shields and even a flying dragon! Ignite your imagination and hone your thinking and making skills as you learn to solve design and engineering challenges. Instructor: Blu Fahey</p>	<p><i>Morning:</i> <b>Creatures and Careers</b> Would you like to explore a tide pool like an ichthyologist, scan the desert for reptiles with the eyes of a herpetologist, and watch the skies for birds with the skills of an ornithologist? This workshop introduces you to many amazing careers that involve animals of all shapes and sizes. With the help of the Randall's resident animals and native wildlife found on the museum grounds, you'll study many different kinds of animals and record your findings in your own hand-made science journals. Examine the claws on a tarantula's foot and learn how they taste the world around them. See the details in an owl feather and learn how owls fly so silently. Feel the scales of a snake, and learn how they hunt with just their tongue. You'll learn how to identify native wildlife, practice basic research methods, and you might even find the answer to that inevitable question: "What do you want to be when you grow up?" Instructor: Sarah Bowser</p>	<p><i>Morning:</i> <b>Scrapyard Robotics</b> Do you like to figure out how things work? Do you enjoy building things? In this fun workshop at the Randall Museum, you'll design and build your own robot from scratch using scrap parts, motors and common circuitry components. You'll learn about gears, motors, sensors, LEDs, how electricity works and much more. Creativity, invention, problem solving and teamwork are emphasized. Instructor: Joel Dream</p>	<p><i>Morning:</i> <b>Inventions</b> Discover how levers, cranks and pulleys work. Use simple household materials, hardware and sculptural materials to create working inventions and kinetic sculpture with your own creative twist. Instructor: Mark Brest Van Kempen</p>
<p><i>Afternoon:</i> <b>Young Naturalists</b> Have you ever touched the scales of a snake, followed the pawprints of a coyote, or heard the call of a Swainson's Hawk? Would you like to get up close and personal with some of California's native wildlife? In this workshop, we'll learn how to listen and where to look (using our own handmade binoculars!) when observing wildlife. We will record our observations, thoughts, and sketches in our own handmade nature journals. And we'll learn how to use our knowledge and passion to help protect and improve our environment, becoming empowered stewards for California's natural resources. Instructor: Sarah Bowser</p>	<p><i>Afternoon:</i> <b>Rocketmobiles</b> Blast off your own flying rocketmobiles! Design and build unique launchable rockets that shoot, race and roll. Make a monster truck that actually flies. Work with tools to take stuff apart, reshape materials, and rebuild into your own imaginative designs. Experiment, test, tinker, and play. Build spaceships that light up, flying rocketmobiles and even airborne astronauts—all rocket powered! Instructor: Blu Fahey</p>	<p><i>Afternoon:</i> <b>Inventions</b> Discover how levers, cranks and pulleys work. Use simple household materials, hardware and sculptural materials to create working inventions and kinetic sculpture with your own creative twist. Instructor: Mark Brest Van Kempen</p>	<p><i>Afternoon:</i> <b>3D Printed Robots: Design, Build, Drive</b> Build the epic robot only you can imagine! Using 3D design software TinkerCAD, you'll develop your unique Robot design, and then 3D print your robot's body parts using our MakerBot printers. You'll learn about motors and circuitry and soldering to build your robot and remote control from scratch. Get hands-on with the build out: soldering circuits &amp; parts, drilling, gluing and whatever else it takes to build your robot. The last day, we'll have robot obstacle courses, robot battles, and other robot games. At the end of camp, students will keep their fantastic, one-of-a kind robot. Instructor: Joel Dream</p>