

Workshop Topic Descriptions

Anything listed within * ___ * is suggested when considering CA State Standards

All About Animals (K-6) Feathers, fins, fur and more! Explore the animal kingdom and learn about the habitats, anatomy and life cycles of your favorite creatures. Take home your own animal track to make, experiment with camouflage and explore the amazing — and sometimes strange — sounds that animals make.

Atmosphere & Beyond (Grades 1-6) We're on a mission to explore the atmosphere on Earth, and beyond! Travel to the end of the rainbow and make a sunset! Mix up various planetary atmospheres, one molecule at a time! Discover how stars look in space and take home your own Meteorological Station.

Body Basics (Grades 1-5) Explore the amazing machine that can speak 48,000 words, move liquids 168,000,000 miles, and take in 3 pounds of food all in one day- your body!

Bugs! (Grades K-3) Students will explore the world's most abundant animal! Insect defenses and their role in our ecosystems will be explored in fun, hands-on activities that introduce children to these fascinating creatures!

Che-mystery (Grades 3-6) Eliminate the mystery in chemistry! Explore one of the most exciting and fundamental sciences as you watch sand float on top of water and take home your very own Dynamic Dish!

Chem-in-a-Flash (Grades 3-6) Hop on the chemistry express for a high-speed science experience! Perform instantaneous experiments in this fast-paced class on reactions that go like mad! Pick up an Action Flask and perform some snappy chemistry experiments at home!

Current Events (Grades 3-6) Take a tour on the electron freeway! Conductors, insulators, transistors, and other elements in the world of circuit electricity introduce themselves to you via the tingle in your fingertips and the twinkle in your eye.

***Decomposers* (Grade K-2) Meets CA State Standards** Introduce yourself to fungi, mushrooms, and our favorite decomposer- the worm! Learn how they eat, see, move, and help people recycle.

Detective Science (Grades 1-6) Meets CA State Standards We'll transform the room into a crime lab to collect fingerprints and other clues. Learn how science is used to solve real crimes!

***Dirt on Garbage* (Grades K-6) Meets CA State Standards** Reduce, reuse, and recycle in this hands-on class! Students will work together while exploring ways to reduce and manage waste to improve the state of the environment.

Dry Ice Capades (Grades K-6) Manipulate matter in all of its three states! Melt metal in boiling water and freeze water with just a breath of dry ice! Use your Thermocolor Cup to test the temperature of liquid matter in your home!

***Earthworks* (Grades K-6) Meets CA State Standards** Take a voyage to the center of the Earth! We'll investigate the powerful processes that shape the planet and form remarkable rocks, magnificent minerals, and glittering gems! Children will take home sedimentary stackers that they make themselves.

Energy Burst (Grades K-3) Explore the energy of motion. Learn how to make potential and kinetic energy fun with this dynamic class!

Fantastic Fliers (Grades 1-6) Learn the fundamentals of flight. Build your own stunt planes. You'll be a Top Gun before you know it!

Fun-damental Forces (Grades 1-6) Gravity... Inertia... Centripetal force... who could ever imagine that an introduction to physics could be so much fun? We'll experience these awesome forces for ourselves and build some cool devices to watch them at work!

Get Connected Children chat on their own telephone network, find the limits to low-power radio signals, and wind through a cell tower relay. Get connected with your very own Wired World take-home project.

Glow Show (Grades 1-6) Discover amazing things that glow in the dark! Find out how fluorescence can be used to catch counterfeiters and how chemilluminescence can be used to make a light bulb in a bottle! *(requires ability to darken room)*

Harnessing Heat (Grades K-6) Learn the properties of heat. Witness an underwater volcano, experiment with thermometers and have a "Sand Blast!"

***Invention-ation* (Grades 5-6) Meets CA State Standards** Who made up the light bulb? Why is Rube Goldberg making things so difficult? Students are encouraged to be the most common type of scientist- an inventor! (Can also be done as a science fair for the whole school!)

Junior Reactors (Grades 1-6) Create a tiny world of atoms with your very own set of Atomic Coins! Learn to recognize chemical reactions and mix up a few reactive ingredients for some sensational results!

Kitchen Chemistry (Grades K-6) Cook up a chemical reaction! Blow up a balloon with yeast. Go on a nutrient hunt. Get a glimpse of your guts-in-action with the Digestor Inspector kit.

Lab Works (Grades K-2) Enjoy this whirlwind class on how a lab works. Manipulate lab equipment and take home your very own Graduated Gear to continue your research!

Life In The Sea (Grades K-2) What is life like under the ocean's surface? What kind of animals and plants are found in the sea? Learn about buoyancy and adaptation. Find out what humans must do in order to explore the deep, dark depths of our planet's oceans.

***Lights ... Color... Action!* (Grades K-6) Meets CA State Standards (Additional material fee applies.)** Uncover the hidden components in ordinary light and build your own Technicolor Blender. Find out how refraction can make a rainbow out of sunlight and about the hidden wavelengths of infrared and ultraviolet.

Living in Space (Grades K-6) Experience the life of an astronaut as you use teamwork to complete an important space mission and build a model space station!

***Mad Science Machines* (Grades 1-6) Meets CA State Standards (Additional material fee applies.)** Teams of elementary-age engineers will have so much fun problem-solving, designing and testing that they'll forget that they're learning! Children will take home a cool Mad Science Drag Racer they build themselves!

***Magnetic Magic* (Grades 1-3) Meets CA State Standards** What makes a magnet magnetic? Can compasses really help you find your way? Discover the answers to these, and many more questions through interactive and hands-on experimentation.

***Mineral Mania* (Grades 3-6) Meets CA State Standards** Learn about the layers of the Earth, recreate a volcano, and devise ways to identify and classify rocks and minerals.

Mission Nutrition (Grades K-6) Cultivate a healthy attitude towards nutrition and fitness. Take home a Mad Science Step-o-Meter!

Mix It Up It's time to shake up solutions and explore mixture chemistry. Sort out mixtures, clear color from a watery solution and see how useful a suspension can be.

Movie Effects (Grades K-6) Sit in the director's chair and learn the science of movie-making! Investigate 3-D images and create amazing special effects.

Moving Motion (Grades K-5) Test the scientific principles that affect movement. Examine the inner workings of engines and gadgets!

Optical Illusions (Grades 1-6) (Additional material fee applies.) Build your own periscope while learning about optics, reflection and vision. Investigate amazing optical illusions!

pH Phactor (Grades 3-6) Slide down the pH scale and dip into the world of acids and bases! Explore the pH extremes with your Reaction Tube in a popping experience!

Planets & Moons (Grades 1-6) Explore the farthest reaches of our solar system and create a lunar eclipse in this "mad" planetary tour! Learn how the planets stack up. Build a Gravity Assisted Launcher to take-home!

Radical Robots (Grades K-6) Get wrapped up in Robotics! See a reading and writing robot. Control an automaton through sound, move a robot through a maze and make a soccer robot score a goal!

Rocket Science (Grades 1-6) (Additional material fee applies.) Investigate the four forces of flight and build your own Skyblazer II Rocket that you can take home!

Science of Magic (Grades K-6) Learn the science behind illusions, read minds, and perform a Houdini-style escape! It's not magic- it's science!

Science of Toys (Grades K-3) Did you know that some of your favorite toys work using scientific principles? Discover the science of motion through fun, hands-on activities.

Seeking Our Senses (Grade K-1) Learn to be a sense-ative person! Test your vision with our mind-boggling illusions. Use your hearing for fun and games. Put your fingers to the test with our Braille cards, and tease your tongue with our very own taste test.

Slime Time (Grades K-6) Ooze into a gooey hour of sliming around! Create slime using the Mad Science recipe, and then enter your creation in the Slime Olympics! Take home your own concoction of Mad Science Slime!

Sonic Sounds (Grades K-2) Surf sonic waves in this "off beat" class. We will explore how sounds are created and transmitted. Discover sound, sound waves and the way household items can be used to create amazing movie effects.

Space Phenomena (Grades 3-6) Probe the mysteries of meteors and bounce around satellite light in this phenomenal program on space events! See comets up close as one is formed before your eyes, and take home your very own Space Telescope!

Space Technology Discover technology designed for outer space! Steer a laser beam through a maze, and find hidden mountains using the principles of radar technology!

Space Travel (w/water bottle rocket launch) (Grades 1-6) Learn what it takes to be a true globetrotter! Race a balloon rocket and design your own car engine as you learn about thrust. See the principles of propulsion at work in a water bottle rocket launch, and build your very own Shuttle Copter to fly to the skies!

Suns & Stars (Grades K-6) Watch stardust burn, and journey through a soapy solar system as you investigate the life cycle of stars. Check the constellations on your own Cosmic Disk!

Super Power Sources (Grades K-6) Embark on a quest for alternative energy sources! Harness the sun's heat and ramp up a power generation station. Act as a "Power Hunter" to search for renewable and nonrenewable resources.

Super Sticky Stuff (Grades K-3) Stick it to the walls in this adhesive hour on things that cling! Build a bond with glue and get attached to Professor Beakerdude!

Super Structures (Grades 1-6) Discover the hidden strength of triangles, arches and cylinders. Use combinations of shapes to build your own super-structure!

Tantalizing Taste (Grades K-2) Explore the chemistry behind your savory sense with this tantalizing class. Be ready to stick out your tongue as you discover the delicious biology behind your taste buds. You'll be surprised to know what your nose knows.

Under Pressure (Grades 1-6) Join Bernoulli and Newton as we take this exciting look at the science behind aerodynamics and the properties of air... under pressure. Use a vortex generator to create air pockets with a punch, and levitate ping-pong balls in defiance of gravity!

Walloping Weather (Grades 1-6) Discover how hurricanes, tornadoes and thunderstorms form and how powerful they can be. Make a UV ray detector!

Watts Up! (Grades 1-6) Learn about electricity, its properties, and its role in natural phenomena. Make indoor lightning while conducting hair-raising experiments with our plasma balls.

Where's the Air? (Grades K-2) Be amazed at the power of air around us. Use a vortex generator, watch an aluminum can implode, and make your own paper helicopter to take home.