



Mad Science of New York City & Westchester
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ELEMENTARY WORKSHOPS **STEM and Engineering Based Workshops**

“Watts” Up! (most appropriate for grades K-5)

Charge up on static electricity. Make indoor lightning and conduct hair-raising experiments with an electro-static generator. Use your Static Stick™ on electrons at home.

Super Structures (most appropriate for grades K-5)

Act like junior architects and engineers! Discover the hidden strength of triangles, arches and cylinders. Use combinations of shapes to build your own super-structure! Construct a structure from scratch with the **Bridge Basics™** kit.

Radical Robots (most appropriate for grades K-5)

Build your very own robot hand to take home in this class that focus on technology. Explore how robots can be used to make our lives easier. Experiment with robots that can do some extraordinary tasks, infrared robots, robotic arms and even soccer playing robots.

Invention-ation (most appropriate for grades K-5)

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, as they delve into the importance of the scientific method and create their own crazy inventions!

Mad Machines (most appropriate for grades K-5)

See how simple machines lighten your load! Launch with levers, secure with screws, and work with wedges. Use pulleys to move heavy objects with ease. Wind-up the Drag Racer™ for some zooming action.

Stunt Planes & Gliders (most appropriate for grades K-5)

Fly through flight and aerodynamics basics! Discover the four forces that affect flight. Make and test various plane designs to see these forces in action! Build the your own foam plane and fling it forward!

Rocket Launch! (most appropriate for grades K-5)

See the principles of propulsion at work in a real rocket launch, and build your very own **Shuttle Copter™** to fly to the skies!

Current Events-The current electricity workshop (most appropriate for grades 3-5)

Take a tour on the electron freeway! Investigate conductors, insulators, and other elements in the world of circuit electricity. Get turned on to science and technology with the Circuit Maze™.

Rocket Building (Two hour session-most appropriate for grades 3-5)

Explore the science involved in rocket construction as you build your own **Skyblazer Rocket™** that you can take home!

Space Technology (most appropriate for grades 3-5)

Discover technology designed for outer space! Steer a laser beam through a laser maze, find hidden mountains using the principles of radar technology and discover everyday objects originally designed for use in space as we assemble our own **Stereoscopic viewers™**!

Super Power Sources (most appropriate for grades 3-5)

Embark on a quest for alternative energy sources! Harness the sun's heat and ramp up a power generation station. Act out a "Power Hunters" to search for renewable and nonrenewable resources.



Chemistry Themed Workshops

Slime Time (most appropriate for grades K-5)

Ooze into a gooey hour of sliming around! Create slime using the Mad Science recipe, and then enter the Slime Olympics! Take home your own concoction of Mad **Science Slime!**

Dry Ice Capades (most appropriate for grades K-5)

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 Kool Cup™** to test the temperature of liquid matter in your home!

Lab Works (most appropriate for grades K-5)

Use your hands as a real Mad Scientist in this whirlwind class on how a lab works! Learn to manipulate laboratory equipment at your personal lab bench, and take home your very own **Graduated Gear™** to continue your research!

Junior Reactors (most appropriate for grades K-5)

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!

Super Sticky Stuff (most appropriate for grades K-5)

Stick it to the walls, and push the power of tape to the limits in this adhesive hour on things that cling! Build a bond with glue and get attached to **Professor Beakerdude™**!

The Glow Show (most appropriate for grades K-5)

Discover amazing things that glow bright in the dark and come to light! Probe the properties of light and explore some unusual applications of glow-in-the-dark technology! Use your **Glowing Changes Card™** to make glowing surprises! *Note this program requires the ability to darken the room.*

Kitchen Chemistry (most appropriate for grades K-5)

Cook up a chemical reaction! Blow up a balloon with yeast. Go on a nutrient hunt. Act out digestion from start to finish. Get a glimpse of your guts-in-action with the **Digestor Inspector™**.

The Mystery of Chem (most appropriate for grades 3-5)

Discover the mystery in chemistry! Explore one of the most exciting and fundamental sciences as you watch water turn into juice and liquids turn into solids. Explore physical and chemical reactions with the **Dynamic Dish™**.

pH Phactor (most appropriate for grades 3-5)

Slide down the colorful pH scale and dip into the world of acids and bases! Explore the pH extremes with your **Reaction Tube™** in what is sure-to-be a popping experience! Discover whether liquids found in your home are acids or bases using your personal pH Paper!

Chem in a Flash (most appropriate for grades 3-5)

Hop on board the chemistry express for a high-speed science experience! Perform instantaneous experiments in this fast-paced class on split-second reactions that go like mad! Pick up an **Action Flask™** and have a blast!

Mix It Up (most appropriate for grades 3-5)

It's time to shake up solutions and explore mixture chemistry. Children sort out mixtures, clear color from a watery solution and see how useful a suspension can be. The **Super Sorter™** gives children the tools to sort mixtures at home.

Life Science Based Workshops

Seeking Our Senses (most appropriate for grades K-1)

Sniff out the science of your five senses and explore the world around us as you 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.

Dinosaurs (most appropriate for grades K-2)

Delve into paleontology as we join a dinosaur excavation. Examine real fossil casts to see the differences in the teeth of herbivorous and carnivorous dinosaurs. Students will participate in a mini dinosaur excavation!

Life In The Sea (most appropriate for grades K-2)

What is life like under the ocean's surface? What kind of animals and plants are found in the sea? Examine and investigate starfish, sea urchins and shells. Learn about buoyancy and adaptation. Make your own Cartesian diver, and find out what humans must do in order to explore the deep, dark depths of our planet's oceans.

Decomposers-The World of Worms (most appropriate for grades K-2)

Introduce yourself to fungi, mushrooms, and our favorite decomposer- the worm! Discover the role that worms play in our ecosystem and plant growth. Learn how they eat, see, move, and help people recycle. Then build your own worm world (complete with a live worm to take home).

Bugs! (most appropriate for grades K-3)

Engross yourself in entomology! Inspect authentic insect specimens. Update your insect anatomy know-how. Match-up insects with their habitats. Get bug-eyed with the **Insect-A-Vision kit™**.

Walloping Weather (most appropriate for grades K-5)

Get weather-wise. Uncover the reason for seasons. Create three-day weather forecasts. Stage a statically-charged indoor storm. Spot the sun's invisible UV rays with the **Sun Beads™** kit.

All About Animals (most appropriate for grades K-5)

Feathers, fins, fur and more! Explore the animal kingdom and learn about the habitats, anatomy and life cycles of your favorite creatures. Make your own animal track to take home, experiment with camouflage and explore the amazing — and sometimes strange — sounds that animals make.

Body Basics (most appropriate for grades K-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! Find out how different systems work together to make our bodies work as we create our very own **Organ Outfits™**.

Mission: Nutrition (most appropriate for grades K-5)

Step into some healthy habits Put together a food pie and lay out a perfectly proportioned meal. Burn calories and shake up an emulsion. Clip on your **Step-O-Meter™** and walk on.

Earth Awareness (most appropriate for grades K-5)

Get to know the planet earth and see how important conservation is. design and create your own water filtration systems and then harness solar power to create a work of art you can keep.

The Science of Sport (most appropriate for grades K-5)

Ever consider how important science is in sports? We'll demonstrate the physics of athletics and use the scientific method to create our own version of protective gear.

Earthworks (most appropriate for grades 3-5)

Dig into Earth Science! Uncover rock samples and discover how they formed. Inspect fluorescing minerals. Model the moving plates that cause bends and breaks. See how sediment stacks with the **Experi-tube™**.

Black & Blue Oceans (most appropriate for grades 3-5)

Simulate the effects of an ocean oil spill, and develop creative techniques to clean it up! Create your own Rescue Diver™ while learning about water, waves, and the environment.

Exploring Ecosystems (most appropriate for grades 3-5)

Investigate what an ecosystem is, where it can be found, and what it does. Challenge yourself to rid a "lake" of pollution, and build a real mini ecosystem that you can keep!

Birds & Beasts (most appropriate for grades 3-5)

Explore the natural world and the adaptations that allow birds and beasts to thrive. Study the feeding habits of owls and dissect the remains of their lunch.

Cells (most appropriate for grades 4-6)

Observe and chart what all living things have in common. We will be introduced to cell structure, an understanding that cells are the building blocks of all living things, basic cell process and cell division.

Photosynthesis (most appropriate for grades 4-6)

How is a plant like a battery? Why do most plants appear to be green? Diagram the process of photosynthesis, see how plants convert light into food and germinate your very own seeds to take home.

Physics Based Workshops

Magnetic Magic (most appropriate for grades K-2)

Explore the power of magnets. Create electromagnets and control a compass needle. See a magnetic accelerator in action. Grab a Magnet Lab™ for some at-home research.

Sonic Sounds (most appropriate for grades K-2)

Uncover the source of sound. Tap into sound waves and fill your ears with vibrations. Create sound effects and change the pitch of your voice. Use your Sonic Horn™ to make some noise.

“Watts” Up! (most appropriate for grades K-5)

Charge up on static electricity. Make indoor lightning and conduct hair-raising experiments with an electro-static generator. Use your Static Stick™ on electrons at home.

Under Pressure (most appropriate for grades K-5)

Join Bernoulli as we take an exciting look at the science behind air pressure. Create a vortex with an Airzooka, and make pucks and balls levitate with air pressure! Launch foam rockets with the Air Blaster™.

Optical Illusions (most appropriate for grades K-5)

Work against your eyes. Trick your brain with lines and coils. Discover how mirrors and their reflections can play tricks on what you see. Make a periscope to see above and beyond.

Super Structures (most appropriate for grades K-5)

Act like junior architects and engineers! Discover the hidden strength of triangles, arches and cylinders. Use combinations of shapes to build your own super-structure! Construct a structure from scratch with the Bridge Basics™ kit.

Harnessing Heat (most appropriate for grades K-5)

Take-on temperature. Build a thermometer and heat things up with friction. Feel how hot and cold can change at a touch. Apply your red-hot knowledge to your Heat Sheet™.

Lights...Color... Action! (most appropriate for grades K-5)

Catch some cool colors. Make a rainbow out of white light. Split your name with ink and reveal numbers with color filters. Color the world with the Technicolor Blender™.

Fun-damental Forces (most appropriate for grades K-5)

What do gravity, inertia, and centripetal force have in common? They are all part of the fun in this introduction to physics. Feel the pull of precession with the bike wheel gyroscope, and strike the perfect balance with the Gravity Game™.

Science of Magic (most appropriate for grades K-5)

Learn the science behind illusions, read minds, and perform a Houdini-style escape! Amaze and amuse friends and family with the Curious Cube™. It's not magic—it's science!

Movie Effects (most appropriate for grades K-5)

Discover why science is the real star on the big screen. Create cool sound effects. Toy with 3-D technology. Make motion pictures come alive. Sketch a short feature in the Cartoon Creator™ flipbook.

Science of Toys (most appropriate for grades K-5)

What makes toys work? Move out of the way for motorized toys. Take a spin with kinetic tops. Balance a bird to reveal its center of gravity. A twist of the wrist sets your Yo-Yo spinning!

Energy Burst! (most appropriate for grades K-3)

Explore the energy of motion (potential versus kinetic energy), and how energy can be conserved. Launch the Mad Science Spring Thing™ to help learn all about energy — and shock your friends.

Great Gravity (most appropriate for grades K-3)

Children will have the opportunity to learn more about the force of gravity in this class. They will conduct hands on experiments that will provide the opportunity to explore the force of gravity, the center of gravity and even to defy gravity.

Science of Art (most appropriate for grades K-3)

Get your left and right brains working together and discover the links between science and art. Mix and separate colors, uncover art forgeries, investigate friction. Discover that science is an important part of art, and get your own pair of rainbow diffraction glasses to take home.

Current Events (most appropriate for grades 3-5)

Take a tour on the electron freeway! Investigate conductors, insulators, and other elements in the world of circuit electricity. Get turned on to science and technology with the Circuit Maze™.

Moving Motion (most appropriate for grades 3-5)

Learn all about the forces behind the movement of planes, trains and automobiles. Students will perform a series of experiments to learn more about friction, inertia, and other forces that affect the way things move. Throughout the class the children will add to their very own take home inertia kit to continue experimenting at home.

Forensics Based Workshops

Discover Detection (most appropriate for grades K-5)

Step into the shoes of a detective—uncover the science involved in evidence gathering and analysis.

Agent Undercover (most appropriate for grades K-5)

Get into gear with Agent Undercover and learn what it takes to be successful in the spy world. With the **Undercover Observer™**, that you will make and take home, you can step into the shoes of a spy in action.

Sleuths on the Scene (most appropriate for grades K-5)

Suspects, schematics, and sleuths... oh my! Connect the dots using science to help solve a crime in this hands-on investigation at the science of sleuthing.

Funky Forensics (most appropriate for grades K-5)

Evidence collection and puzzle making will lead you to understand why forensic scientists like to understand the complete picture before they make decisions.

Crime Lab (most appropriate for grades K-5)

Got clues? Analyze clues and get hot on the trail of a culprit with the Crime Lab program. With the **Spynoculars™** take home, you can safely observe clues from afar.

Cracking the Case (most appropriate for grades K-5)

Discover what it takes to keep things safe and how technology works in the spy game! Use your **Spyglasses™** to observe and take turns on short surveillance shifts to test your observation abilities.

Jr. Detectives (most appropriate for grades 3-5)

Discover what it takes to be a detective in this hands-on look at detective science. Using powers of observations and your **Inspectikit™**, you will have all you need to get started on detective adventures.

Spy Academy (most appropriate for grades 3-5)

Look out 007—the Mad Science Spy Academy is in session! Students will make and take home their own **Secret Code Breaker™** to communicate stealthily at home, like real spies.

Whodunit? (most appropriate for grades 3-5)

Test your skills and learn how the pros do it through careful observation and techniques to handle evidence properly. Using your **Whodunit Kit™** take home, you can practice the skills of recall and observation.

The Science of Security (most appropriate for grades 3-5)

Become a super spy and learn clever ways of performing tasks in this hands-on view at the science that spies use. Put your spy skills to the test by building your very own **Secret Safe™** and challenging others to crack the code!

Astronomy and Space Exploration Based Workshops

Planets and Moons (most appropriate for grades K-5)

Explore the farthest reaches of our solar system and create a lunar eclipse in this “mad” planetary tour!

Atmosphere and Beyond (most appropriate for grades 3-5)

We’re on a mission to explore the atmosphere on Earth, and beyond! Travel to the end of the rainbow and make a sunset!

Space Phenomena (most appropriate for grades 3-5)

Probe the mysteries of meteors and bounce around satellite light in this phenomenal program on space events!

Sun and Stars (most appropriate for grades K-5)

This stellar program is your ticket to the stars! Watch star dust burn, and journey through a soapy galaxy as you investigate the life cycle of stars!

Rocket Launch! (most appropriate for grades K-5)

See the principles of propulsion at work in a real rocket launch, and build your very own **Shuttle Copter™** to fly to the skies!

Rocket Building (Two hour session-most appropriate for grades 3-5)

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Space Technology (most appropriate for grades 3-5)

Discover technology designed for outer space! Steer a laser beam through a laser maze, find hidden mountains using the principles of radar technology and discover everyday objects originally designed for use in space as we assemble our own **Stereoscopic viewers™**!

Living in Space (most appropriate for grades K-5)

Live the life of an astronaut as you suit up for space flight! Participate in a space mission and repair a torn solar panel on a satellite.

Stunt Planes & Gliders (most appropriate for grades K-5)

Fly through flight and aerodynamics basics! Discover the four forces that affect flight. Make and test various plane designs to see these forces in action! Build your own foam plane and fling it forward!