

# Mad Science Summer 2010 Topics

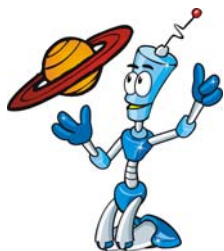
## Nature

Explore the natural world and the adaptations that allow birds and beasts to thrive. A new and different fun take-home project each day. Make plaster casts of animal tracks. Tie-dye t-shirts with vegetable dyes. Build a bird feeder and mix your own seed blend to attract specific bird species. Make recycled paper and test for acid rain. Construct a bug house for observing insects. Study the feeding habits of owls and dissect the remains of their lunch. Learn about geology by growing your own crystal garden and breaking open your own geode. Campers will even open oysters while searching for genuine pearls.



*Appropriate for students who have completed grades K - 5*

## NASA Journey Into Outer Space

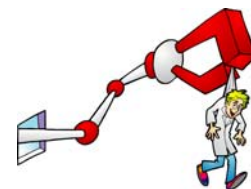


Material developed by Mad Science and NASA. Take a voyage of discovery into the atmosphere and beyond. Explore planets, moons, and other space phenomena in our solar system. Examine the sun and other stars. Discover the difficulties of space travel, the challenges of living in space, and try assembling a satellite while training to be an astronaut. Learn about the various technologies that make space exploration possible while bouncing lasers around the room, and take home an LED UFO. Build your own Mad Science model rocket, and launch several with the group. Campers will have lots of projects to make and to take home including a Kepler's Cube solar system puzzle, a Cosmic Chronometer, a Shuttle Copter, and a Catch-a-Comet.

*Appropriate for students who have completed grades 1 - 5*

## Red Hot Robots

Explore the basic and complex technology used to design and build robots. Discover how machines and robots work and how they make our lives easier. Learn about simple machines, gear structure, battery wiring, motor principles, and electronic circuits. Experiment with different forms of locomotion. Build your very own robot and several other take-home projects, including a catapult, a "mega pincher", and a "Technicolor blender". Separate sessions will be offered for different age groups.



*Appropriate for students who have completed grades 1 - 5*

## Secret Agent Lab

15 hours of, fun-filled, hands-on, secret agent themed science activities featuring 10 take-home projects! The five daily themes are Discover Detection, Funky Forensics, Science of Security, Sleuths on the Scene, and Spy Academy. During the week the agents put everything they have learned to the test. They will code and decode messages, use spy equipment on a surveillance shift, collect and analyze evidence, explore the science of tracking, practice facial reconstruction, and many other activities that are so top secret they cannot be described publicly! Take home projects include an ultraviolet Fingerprint Finder kit, Spyglasses that let you secretly watch people who are behind you, Spy-noculars, a Secret Code Breaker, and an Inspecti-kit for evidence collection.

*Appropriate for students who have completed grades 1 - 5*



## Crazy ChemWorks

This action-packed camp explores the chemistry of everyday life! With spectacular hands-on activities and stunning demonstrations, kids will both learn *and* apply the concepts, tools and techniques of real chemists! Campers will start by learning real lab techniques and safety procedures, and then use these throughout the week to mix crazy concoctions and chemical combos. They will experiment with super-sticky-stuff, explore glow-in-the-dark technology, mix potions, make slime, and grow crystals! Each camper will take home a full set of Mad Science lab gear that includes a graduated cylinder, a beaker, a flask, an experiment tube, pH paper, a thermo-color cup, a blacklight writer, and more!

*Appropriate for students who have completed grades 1 - 5*

## Ancient Adventures & Buried Bones

Mad Science's first archaeology/paleontology camp. Dig into the physical remains left behind by people and animals in the past. Delve into the mysteries of Ancient Egypt, the lost city of Pompeii, and the hidden temples of the Maya. Explore the past by examining the objects that ancient peoples left behind. Mummify a mad scientist. Participate in a mock archaeological dig and assemble the huge pre-historic skeletal remains you uncover. Investigate the technologies use in the past and build your own monument. Decipher ancient languages and preserve genuine artifacts. Even take home an actual Roman coin that is over a thousand years old! Solve a new mystery every day.

*Appropriate for students who have completed grades 2 - 5*

New!

## Science Mysteries & Fantastic Forces

Investigate several topics each day with cool take-home projects. Kids will be engineers, chemists, and stunt pilots! Children will have fun with physics and learn the science behind magic tricks. Your Mad Scientists will be shocked by what they learn about electricity... blown away by their experiments with air pressure... and swept away by the excitement of working with waves! They will learn about simple machines and build a propeller-powered car. Campers will make and take home their own crystal garden, a center-of-gravity game, a “magic” box which make objects disappear, a “Skyhawk” foam plane, an “Air Blaster” foam rocket launcher, a bridge building kit, a Cartesian diver, a “Drag Racer” car, and their own batch of ooey, gooey slime.

*Appropriate for students who have completed grades K - 4*

New!

## Science Explorers Academy

Explore the world of science with a different set of fun science topics each day. Campers will experiment with super-strong magnets and have a “hair-raising” experience while learning about electricity. They will play tricks on their senses by experimenting with their taste buds and manipulating sound waves. Kids will investigate light waves, explore the properties of color, and then baffle their eyes by exploring optical illusions. They will also play with cool science toys and figure out how they work and analyze the amazing properties of slime. Projects that campers will make and take home include a periscope, an electric Newtonian color wheel, floating magnets, a static electricity stick, a superball, a color-changing “heat sheet”, and more!

*Appropriate for students who have completed grades K - 4*



Schedules and online registration at  
[www.MadScience.org/MidHudson](http://www.MadScience.org/MidHudson)