

## MAD SCIENCE WORKSHOPS

One Saturday a month, 10 a.m. - 1 p.m.

**Mission — “We aim to spark the imagination and curiosity of children everywhere by providing them with fun, entertaining and educational activities that instill a clear understanding of what science is really about and how it affects the world around them.”**

**Ages:** 5 to 12

**Fee:** Residents - \$45 Non-Residents - \$60 *Residents - sign up for more and save! Sign up for 3 classes and pay \$120 Resident. Sign up for all 6 and pay \$240.*

**Location:** Bryn Mawr Community Center (adjacent to Ludington Library) 9 South Bryn Mawr Avenue

### **October 20th Detective Science**

Children will step into the role of detective and discover how forensic science plays an important role in solving crimes as they dust for fingerprints, test mystery powders, and analyze rainbow shoe prints. Using what they have learned about making observations, children will put their skills to the test and observe various details from a crime scene. All participants will take home an individual fake finger and an identification kit to record their fingerprints and other vital information.

### **November 10th Earth’s Amazing Wonders**

Junior Geologists will learn about the Earth as they examine geodes, rocks, and florescent minerals with their sense of sight and touch. Children will also learn about the forces that create earthquakes, the natural faults in the Earth’s crust and will work together to make a volcano explode! Children will delve into an investigation of the layers of the Earth and explore how various forces combine to create rocks and minerals. Each participant will take home an ultraviolet bead keychain as well as a sedimentary stacker to conduct experiments outside of this rockin’ class!

### **December 8th Slimey Science & Smokey Ice!**

Children will be introduced to the scientific concepts of phase changes and states of matter and will also learn the fundamentals of chemistry. In this program, we will explore, create and play with the most entertaining and useful molecule known to science (polymers!), and discover its many shapes and forms. Children will create slime to take home using our secret Mad Science recipe and will even get to play alchemist for a day by copper plating a nickel, also to take home! As they learn that dry ice is really frozen carbon dioxide, children will experience the Mad Science burp, a display of bubbling potions and, finally, a thrilling grand finale

### **January 12th Lasers & Optics**

When children work together to visualize a laser beam, experiment with stroboscopic disks, and curve light, they’re sure to have a blast! Using a Newton’s color wheel they have built themselves, students in this class will prove that white light really is made up of all the colors of the rainbow and even diffract white light as they wear rainbow glasses! Children will also build their own periscope to take home while learning about optics, reflection and sight. They will watch celebrity images change before their eyes, study optical illusions, and learn that the brain is easily fooled!

### **February 9th Energy & Motion**

What makes things move? Children will discover the science of energy – learning the difference between kinetic and potential energy, using hand generators and a radiometer to investigate, inertia and other moving forces. Take homes include the ping-pong boink and the flying Mad Science Roto-Rocket.

### **March 9th Shake it Up**

Things that pop! This chemistry program takes common household items and mixes them up! What will happen? Throughout the 3-hour program several interactive experiments that investigate chemical change, including testing acids and bases, making soda and more. Children will take home their own toilet paper cannon, and solar hot dog cooker.