



## **EXPERIMENTS WITH ELEMENTS**

Wednesdays, September 14- December 14 (no class Oct 12 and Nov 23; 12 weeks)

9:30am-10:45am

Ages 8-10

**Students learn about the periodic table and how it is organized, practice using lab tools to measure volume and mass, and conduct simple chemistry experiments to learn about specific elements and their properties.** All lab costs are included in the registration fee.

Instructor: Ashley Blocker, BSc

Location: Science Center (Suite 5) - Roswell

Course fee: \$220 or \$20/lab

10% sibling discount

Register for full semester or individual labs

### **LAB SCHEDULE:**

**THE METRIC SYSTEM** - Wednesday, September 14

In our introduction to chemistry, we learn how to use science tools to measure mass, volume and distance using the metric system.

**DENSITY GRADIENTS** - Wednesday, September 21

Students use scientific tools to measure the volume of liquids as they create density gradients and predict where objects will float or sink in it.

**THE PERIODIC TABLE** - Wednesday, September 28

We investigate the elements and learn what the symbols on the periodic table mean, figure out why we call water "H<sub>2</sub>O", and conduct a simple experiment with tin.

**BALLOON EXPERIMENT** - Wednesday, October 5

Students are challenged to design and conduct an experiment to test the best way to lift a heavy object off the ground, while learning why helium floats.

**ACIDS AND BASES** - Wednesday, October 19



This week, students create color-changing experiments as they learn about acids and bases and test the pH of different household liquids.

**SALT CRYSTALS** - Wednesday, October 26

We study crystallization this week through investigating the shapes of different types of salt crystals and conducting two experiments with different compounds.

**THE DIAPER EXPERIMENT** - Wednesday, November 2

This week, we learn how chemistry is used in our everyday lives as we conduct a polymer experiment with diapers.

**CHEMICAL REACTIONS** - Wednesday, November 9

We conduct experiments in a bag to observe how some chemical reactions get warm while others get cold, and try to figure out why.

**IODINE CLOCK** - Wednesday, November 16

In this lab, we practice using our science tools as we conduct a color-changing reaction using starch and iodine, and get some unexpected results.

**MAGNETIC ELEMENTS** - Wednesday, November 30

Students study the three magnetic elements of the periodic table, and experiment with ceramic and neodymium magnets.

**REACTION RATES** - Wednesday, December 7

Today, we design and conduct an experiment to learn how temperature affects the rate of a reaction in a chemical reaction and explore the element carbon.

**NON-NEWTONIAN FLUIDS** - Wednesday, December 14

Today we learn how some substances act like both a solid and a liquid as we create and play with two non-Newtonian fluids.