



WATER IN OUR WORLD

Thursdays, September 15- December 15 (no class Oct 10-14 and Nov 21-25; 12 weeks)

9:30am-10:45pm

Ages 6-8

Students will learn about the different properties of water, how it makes up our world and bodies, and the water cycle as they conduct various experiments with a water focus. Students will also learn about the important role water plays in the environment and how they can help preserve it as a resource. All lab costs are included in the registration fee.

Instructor: Ashley Blocker, BSc

Location: Science Center (Suite 5)

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

10% sibling discount

Register for full semester or individual labs

LAB SCHEDULE:

PHASES OF WATER - Thursday, September 15

Students examine phase changes in response to changes in thermal energy, practice using a thermometer and conduct an experiment to answer the question of whether salt melts ice.

CLOUDS AND THE WATER CYCLE - Thursday, September 22

This week we study the biology of fingerprints and history of fingerprint analysis, learn how fingerprint evidence is left at a scene, practice powder and chemical methods of recovering fingerprint evidence, and analyze fingerprint data.

ICE AND SNOW - Thursday, September 29

Students focus on clouds and precipitation as we follow rain drops through the water cycle and see the movement of water on, in and above the earth.

RAINBOWS - Thursday, October 6

Students create rainbows and use other "magic" tricks to learn about diffraction and refraction and see how water can change light.

SURFACE TENSION - Thursday, October 20

Students experiment with the power of surface tension to understand how some bugs can literally walk on water.

CAPILLARY ACTION - Thursday, October 27

This week, we further our understanding of surface tension and discover the difference between cohesion and adhesion. Students conduct an experiment with capillary action to move water against gravity, separate individual pigments out of colors and practice using graduated cylinders.

HYDROPHOBICITY - Thursday, November 3

Students explore magic sand and why soap is important in hand washing as they experiment with water droplets and study the hydrophobic effect.

WATER IN OUR CELLS - Thursday, November 10

Students learn how and why water molecules move as we experiment with diffusion and osmosis, learn what happens when cells take in too much water and investigate why plants wilt when they do not get enough.

SALT WATER - Thursday, November 17

In this workshop we explore the effects of salt concentration on conductivity, test the density of salt in liquids ranging from our oceans to our energy drinks, and learn how to measure the salinity of water with a refractometer.

EVERY DROP COUNTS - Thursday, December 2

This week we will learn about the concept of renewable and nonrenewable resources and how precious water is to all living things including us. We will use math skills to learn about how much water we use in a day and about conserving water in our everyday lives.

WATERSHEDS - Thursday, December 8

Students simulate the movement of water and pollutants across a landscape to the ocean using a model to study where our water goes and what it takes along the way.

WEATHERING, EROSION AND DEPOSITION - Thursday, December 15

This week we focus on the strength of water. We experiment with erosion and deposition to understand how water can influence the Earth.