



WATER IN OUR WORLD

Mondays, September 20-December 13 (no class October 11 and Nov 22; 11 weeks)

9:30am-10:45am

Ages 6-8

Water makes up the majority of our body and our world. Students learn about the different phases of water, some unique qualities of water, the hydrophobic effect (think magic sand), pH (acids and bases), and how the properties of water connect to our Earth and everyday life. All lab costs are included in registration fee.

Instructor: Nanette Lenderman, MEd

Location: Discover Science Center - Peachtree City

Course fee: \$200 OR \$20/lab

10% sibling discount

Register for full semester or individual labs.

LAB SCHEDULE:

Phases of Water – Monday, September 20

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 - Monday, September 27

Where does all the rain come from? We 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.

Ice and Snow - Monday, October 4

Water molecules have several unusual and interesting characteristics. This week we answer the question "Why does ice float?" and look at the molecular arrangement to investigate snowflakes to see why they are unique.

Rainbows - Monday, October 18

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



Surface Tension - Monday, October 25

Students experiment with the power of surface tension to understand how some bugs can literally walk on water and create an artistic masterpiece.

Capillary Action – Monday, November 1

Why does water bend in a graduated cylinder? This week we further our understanding 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 – Monday, November 8

How does magic sand work? Why is soap important in hand washing? Students answer these questions, experiment with water droplets, and make magic sand as they study the hydrophobic effect.

Water in our Cells – Monday, November 15

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 – Monday, November 29

From the ocean to energy drinks, in this workshop we explore the effects of salt concentration on conductivity, test the density of salt water versus freshwater, and learn how to measure the salinity of water with hydrometers.

pH and Color – Monday, December 6

Students create color-changing experiments as they explore the pH scale, test whether liquids are acids and bases and test how some fruits and veggies can be used as pH indicators.

Weathering, Erosion and Deposition - Monday, December 13

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

www.DiscoverScienceCenter.com