



In-Class Science Program

2017-2018 School Year

The WISE In-Class Science Program is available to all teachers in the **Copper River School District** and **Valdez City Schools** as well as home-school families. We have science kits and experienced teachers available to come to your class and share hands-on lessons. Most of the lessons are designed to be approximately an hour long, but we are happy to work with classroom teachers to customize the content and length of presentations based on the needs of your class. Please see the reverse side of this flyer for this year's class offerings.

This year the In-Class Science teachers will be:

- **Robin Mayo**, WISE Staff
- **Mikaela Dalton**, WISE Americorps Volunteer

To request a class, please call the WISE office at 822-3575, or email robin@wise-edu.org. Whenever possible, we will try to schedule several classes at a location to reduce travel costs.



The In-Class Science program was established in 2011 with the help of grants from the Copper Valley Electric Association and Copper Valley Telecom, for the purpose of expanding opportunities for local students in the sciences. Lessons are designed to spark interest through hands-on exploration, and help fulfill grade level standards for science learning.

We appreciate the continued support of the Copper Valley Electric Association Community Foundation, Copper Valley Telecom, and the Copper River Basin Lions Club who make this program possible.



Wrangell Institute for Science and Environment

(907)822-3575, cell 259-3575 robin@wise-edu.org www.wise-edu.org

WISE In-Class Science Program 2017-2018

Magnetism Grades K-2: Understanding the unseen force of magnetism, distinguishing between magnetic and non-magnetic items, polarity, attract and repel, and everyday magnets. Hands on activities include manipulating lots of magnets, sorting magnetic and non-magnetic materials, and magnetizing steel.

Introduction to Electricity Grades K-2: Covers the difference between static electricity and electric current, conductors and insulators, and creating simple electric circuits. Balloons are used for static electricity experiments, and batteries, wires and bulbs are assembled into circuits. Safety is an important element of this lesson.



Electricity Grades 3-6: A more advanced exploration of the above topics.

Simple Machines Grades 2-4: Attributes of a simple machine, defining work, and making 6 basic types of simple machine. Teams of students work with kits and common classroom objects to assemble and demonstrate the 6 different types. (Note: Doing a thorough job of simple machines takes two hours)

Sound Grades 2-4: What makes sound, sound waves, frequency, intensity, and pitch. How the human ear works, and how to protect our hearing. This activity has a wide range of hands on materials including tuning forks, a megaphone/ear trumpet, pan lids to crash, and good old fashioned cup and string walkie-talkies.

Water Cycle Grades 2-5: This lesson begins with a review of the water cycle, and introduces the concept of a watershed. Then we use the interactive game “The Incredible Journey” in which students roll dice to simulate a journey through the water cycle, and map their results.

Salmon Dissection: This is the ultimate hands-on lesson, always worth the mess. Teams of 2-3 students dissect a salmon, with an emphasis on learning about the organs and their functions. Please let WISE know ASAP if you want to do dissection with your class, so we can start looking for whole fish!

Birdwatching: We learn to use binoculars and identify common local birds using cutout silhouettes. This works best outdoors during the warmer months, but could be adapted for an indoor lesson. We can also help set up classroom bird feeders, and facilitate participation in Audubon’s Christmas Bird Count.

Skins and Skulls: WISE has a large collection of skins and skulls of local furbearers, from least weasel to grizzly bear, which we love to share with all ages. We have a lesson that divides them into families, explains the unique adaptations of each critter, and shows what can be learned about the diet, habitat, and life of the animal by looking at their skins and skulls.

Snow Science and Winter Warmth *New for 2017-18 Grades 3-8: This lesson explores snow science, and the science of keeping warm in winter. Students perform experiments to investigate the insulating properties of snow, how animals keep warm in winter, effect of cold on different body shapes, and how animals create antifreeze to survive hibernation.

Questions? Ready to schedule? Please call Robin Mayo at WISE 822-3575 or email robin@wise-edu.org