

K-5 Field Programs – Geology of the Rogue Valley - Fall 2017

OVERVIEW: This is the first in a six-program series exploring local natural and cultural history. All programs are hands-on and are taught at two levels, K-2 and 3-5, so that students may experience a total of 12 unique sequential programs through elementary school.

THIS SEASON: This season, students will explore geology, and discover the geologic processes which have given rise to a diversity of local rock types and local landforms. Students will observe examples of how geology influences animals and human cultures in the Rogue Valley.

OBJECTIVES:

- ✦ To foster a “sense of place” by teaching local natural and cultural history
- ✦ To foster an appreciation of, and respect for, nature
- ✦ To model a variety of ways that students can enjoy being outdoors
- ✦ To provide examples of how people’s actions and behaviors affect the natural environment and the people living there.
- ✦ To model a variety of ways that students can participate in local environmental stewardship



K – 2 GRADE ACTIVITIES:

1. Mountains in Motion

In this new activity, students will explore the forces that created the varied topography of our region. Students will act out subduction by crawling beneath the west coast of the continent (painted on a large tarp). As they crawl, they will witness the development of their own mountain ranges.

2. Rocky Habitats

Students will learn some of the ways that local animals use rocks. They will then have a chance to make their own rock habitat for an animal of their choosing.

3. Useful Rocks

Students will separate and examine a blended sample of rocks, sand and clay, and guess how humans might use these particles. Students will then learn how rocks can be used to make concrete, glass, and pottery. Finally, they will have a chance to work with clay to make a pendant necklace or bead.

3RD - 5TH GRADE ACTIVITIES:

1. Making our Valley

While the instructor tells a story describing the geologic events that shaped the Bear Creek Valley, students will create a model of the topography out of sand. They will also learn about some of the plants, animals and people that inhabited this area during the past 200 million years.

2. Geology Takes Time

Students will learn about the formation of four major geologic features of the Bear Creek Valley and will match those features to the rock types found there. They will then gather rocks from the field, examine them with hand lenses, and try to determine their source.

3. Rocky Road

Students will have the opportunity to travel through the rock cycle. They will visit five stations gathering descriptions of the stages in the rock cycle. Using the descriptions, they will work in teams to create the life story of a rock, and then act it out for the group.