
Tree Identification



OBJECTIVE

Exploring our natural world can be a wonderful experience, but far too often we observe ecosystems without understanding what is there and why it is there. **This activity creates the opportunity for students to employ observation skills, while at the same time teaching them how to use a dichotomous key to identify commonly occurring native trees in the Rogue.** The hope is that this activity acts as a prelude to an outdoor excursion where students use the keys to identify living trees in their natural environment.

Materials: Dichotomous Keys (15), sample cards with photos and tree samples (20).

Time Required: 45 minutes to one hour

Appropriate grades: 4th – 9th

Benchmarks achieved: Classifying organisms based characteristics.

ACTIVITY

This activity requires the dichotomous keys that are included in this kit. The keys include most all of the common conifers and broad-leaved trees that occur in the Rogue Valley. The sample cards that go along with this activity provide pertinent pictures of the trees as well as samples of leaves or needles. Each card also gives some general information on the tree that will help students understand where it might occur in the environment. Students should work in teams of two or three, depending on class size and teacher preference. Each group will have a key that they can use as they rotate through the sample cards that should be dispersed through out the room or even outside on a nice day; the greater the connection between this activity and the natural world the better. Allow 3-5 minutes for each card before rotating groups to the next sample. Some samples key out more easily than others.

THE TROUBLE WITH KEYS

All keys have their weaknesses, so share with the students that identifying plants with dichotomous keys has limitations. If a sample does not key out easily, determine the answer from the answer key and key it out backwards to determine the characteristics that describe the species (start at the bottom of the key with the species description and then follow the branches of the key back up to the beginning). Any botanist who has used a key will share frustrations that they've experienced.

OTHER IDEAS

This activity might act as a practice session before venturing into the woods. A plethora of background information can be added to this activity to broaden its purpose. Differentiating between the two major groups of plants (gymnosperms and angiosperms) and discussing differences can be included. More in depth lectures or discussions on abiotic factors that determine where certain trees can compete will add an important ecology lesson to the activity. These keys might also acts as tools to a larger activity that looks at how species composition changes as abiotic factors change, i.e. elevation, moisture, soils, aspect, etc. Students might compare two areas and describe what factors differ to explain differences in species composition. Having students compare species composition of a natural forest verses a managed forest might demonstrate some impacts that logging or other management actions have on ecosystems.

