



Conifer Class

When students finish working through this section:

1. They will have a basic understanding of how trees can be classified.
2. They will be able to identify characteristics of conifer trees.
3. They will have completed a graphic organizer detailing how trees can be organized (with examples).

Trees, like people, have characteristics that allow them to be classified in many ways. This section uses size, age, seed location, leaf type, and leaf cycle to begin to differentiate REAL TREES (conifers) from other types of trees.

It is likely that students at this age are familiar with grouping/classifying objects by characteristic. Visual observation is a very big part of the process. However, the scientific classification of trees also depends on an understanding of how they work.

This is also a great place to point out that some of the common terms and ideas we use aren't always scientifically accurate. For example:

- Not all evergreen trees are conifers and not all conifers are evergreen.
- Deciduous is not the opposite of coniferous. Deciduous refers to a cyclical pattern of leaf production. Coniferous is an adjective that means cone-bearing and deals with seed production.

Possible Discussion Points/Activities:

- Ask students to brainstorm or free write (depending on age/ability) the purpose and importance of classifying organisms. This can be a whole class, in small groups, or as an individual activity. If done individually or in small groups, bring students together as a whole group to discuss their thoughts.
- If location and time of year permit, students can be asked to observe, dissect, and describe the parts of a tree mentioned in this lesson: broad-leaves/needles and cones/fruits. Bring in samples of each to show and share.
- Take a science walk. Ask students to classify what they see. How many trees with needles? How many with broad-leaves? How many with cones? As they go, consider asking them to sketch the trees they see and write down where each tree was found.
- Ask students to print and complete the *Think Tank* assignment. This can be done as a whole class, in small groups, or as an individual activity. Discuss.

It's important for students to understand that there are no correct answers. Scientists often disagree about how to classify things because of differences of opinion. The material presented in this lesson is what scientists agree on ... there is much that they are still studying!



Words to Know in this Section:

- adaptation: the way a plant or animal becomes better able to live in its environment
- biologist: a scientist who studies living things
- botanist: a scientist who studies plants and plant life
- cone: the cone-shaped fruit of a conifer tree (pine, fir, spruce, etc.)
- deciduous: falling off at a particular time or season
- evaporation: to take moisture from leaving the dry portion; to change into a vapor

Link Up! in this Section:

- How Christmas Tress Work - <http://www.howstuffworks.com/christmas-tree.htm>

Fast Facts in this Section:

- Evergreen trees are not really EVER green. The needles of coniferous trees don't stay on forever. As the needles become older, they drop off the tree to make room for new needles!

Quick Crafts in this Section:

- Fluffer Nutter Bagel Ornament
Spread marshmallow fluff and peanut butter on a bagel. Sprinkle with shelled seeds and raisins. Tie raffia through the bagel hole and hang.

Thanks to Linda Franz for this cool idea!