



## The "Classifieds"

**When students finish working through this section:**

1. They will have learned how scientists classify living things.
2. They will have discovered that classification can be a tricky business because not everyone agrees.
3. They will have been introduced to botanist Carolus Linnaeus.
4. They will have defined terms used in the taxonomy of organisms.

Scientists have been trying to figure out the best way to classify living things for a long time. While they don't always agree, they have learned that it is important that they all use a common system so that they are able to effectively communicate their findings.

### **Possible Discussion Points/Activities:**

This is a great place to ask students to contemplate what would happen if the items they use everyday didn't have names assigned to them ... communication would be tough. This mirrors early scientific classification efforts.

You can ask students to do one or more of the following:

- Show the class an object (one they are not familiar with, like a lemon zester). Ask them to give it a name and describe what it might do. Then provide a demonstration of its use, but don't provide its name. Ask students to modify and amend their name and description. Finally, ask the class to vote on the best name for the item based on the suggestions offered in the activity. Once they have voted, you may wish to provide them the actual name of the object. This can be done in small groups with multiple unknown objects as well.
- Work on description skills by asking students, or groups of students to write descriptions of common items ... no proper names allowed. Or, in a variation of this idea, ask students to participate in an impromptu speaking activity. Give a pair of students a topic to discuss (i.e. getting to school). Ask them to hold a 3-5 minute conversation about this topic using no proper names. For example, rather than using the word "bus," they might choose to use "the large, yellow motorized movement machine." Ask students in the class to listen and point out the use of "illegal" words.
- Discuss that scientists and inventors go through this process frequently when a new discovery is made. Explore the scientific names of the REAL TREES listed. What do their names tell about them?
- 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.
  - In addition to working on and discussing the *Think Tank* questions, you may choose to ask students to write quizzes for their classmates (or students in your other classes). Ask each student to title a page with the common and scientific name of one of the REAL TREES. Then, instruct them to write a description of the selected/assigned tree. Compile students' work into a "quiz" or scavenger hunt for the class. You can choose to allow them to use resources (such as this page), or to work on this without the help of resources.



**Words to Know in this Section:**

- biologist: a scientist who studies living things
- botanist: a scientist who studies plants and plant life
- classify: to arrange or organize into classes or groups
- cultivar: Cultivar means cultivated variety. These plants have unique characteristics and have been cultivated (grown and maintained) for specific purposes.
- genus: a group of closely related species. Members of the same genus share many common characteristics.
- taxonomy: the science or technique of classification (especially organisms)
- variety: category within a species (subspecies). It is a more specific way to categorize a member of a species and is based on genetics or heredity.

**Link Up! in this Section:**

- PLANTS National Database - <http://plants.usda.gov/>

**Fast Facts in this Section:**

- Like many scientific names, the word *conifer* comes from the Latin words *conus* (cone) and *ferre* (to bear). The word literally means cone bearing.
- The original name for the Noble fir (*Abies nobilis*) had to be changed when it was discovered that another tree had been given the same name.
- The Fraser fir was named for John Fraser (1750-1811). Fraser was a Scottish botanist who explored the southern Appalachian Mountains late in the 18th century.