

Botanical Nomenclature Lesson Plan

By
Héctor E. Pérez

Module 1: Why is botanical nomenclature important?

In this module students have an opportunity to invest themselves in the learning experience and develop connections to their everyday lives. Students may visit locations, physically or electronically, where botanical plant names are displayed. Botanical gardens, arboreta, zoos, parks, college/university campuses and garden centers in your area are good places to visit. The American Association of Botanical Gardens and Arboreta has links to gardens across the United States. Visit their web site at www.aabga.org. Alternatively, teachers may bring plants into the classroom clearly marked with their botanical name.

Students should pay special attention to the scientific names being used. Allow students to find a plant(s) that is of interest to them. Have them write down the scientific name and sketch characteristics of the plant that help them remember it. The next session is used to discuss their experience. Possible discussion questions include:

- Why do things have names?
- Why would organisms have specific names?
- What if all plants were just called “those green things”?
- How do your parents tell you apart from your siblings, cousins, and neighbor’s kids?
- How do you organize objects...is it based on what you see?

Module 2: What is botanical nomenclature?

An assortment of objects is needed for the first exercise. For example, leaves from the same and different species of trees. After the objects have been thoroughly mixed and placed in the center of the room, the teacher asks students to organize them. Give them plenty of time to observe the objects and come up with their own system of organization. Have the students discuss why they organized them the way they did.

In the second exercise the teacher focuses on connecting previous activities to content by teaching factual information. In this case you may decide to lecture on the use of Latin in botanical nomenclature. Assign readings on the rules for nomenclature or show a film about the life and work of Linneaus – the father of nomenclature. Activities could be designed to investigate the use of dichotomous keys for plant identification or focus on key plant features used to create descriptions.

Module 3: How does botanical nomenclature work?

In module 3 the emphasis is on using knowledge gained during modules 1 and 2. Teachers may have students work on puzzles, worksheets, hands on activities or test theories. For example, students must match Latin words to plant parts or characteristics.

Students are given resources that contain botanical nomenclature, they must then look at the descriptions provided, arrange a vocabulary list of unknown words and set out to define them. A good resource to have is a botanical dictionary.

Students may move on to diagramming juvenile and adult plants of the same species, noting similarities and differences. Using their vocabulary list students describe these similarities or differences in botanical terms. Students may then come up with a list of possible Latin words that are descriptive of plants and can be used in naming plants. Students would then share this list with their classmates.

Module 4: What if we used botanical nomenclature to describe plants?

This model emphasizes student creativity and application of knowledge. Here students could choose any plant that interests them and come up with their own name based on botanical nomenclature. Students would need to explain their idea. For example what data they will collect to make determinations, what resources they are using, process they will use to create new name and how they will present it to the class. After this, students would make presentation to the class about their “new” plant.