

S5L1: Classification of Living Things

Dates: 10/15 – 11/5

Key Terms

Group¹

Classify¹

Graph²

Characteristics¹

Similarities¹

Differences¹

Vertebrate²

Invertebrate²

Fish¹

Mammal²

Bird¹

Reptile²

Amphibian²

Plant¹

Photosynthesis³

Producer²

Consumer²

Decomposer²

Roots¹

Leaves¹

Stem²

Seed²

Flower¹

Vascular³

Nonvascular³

Angiosperms³

Gymnosperms³

Deciduous³

Conifers³

Evergreens³

Fungus²

Dichotomous Key³

Framework for Teaching:

Students Will Be Able To:

1. Classify animals into groups based on similarities.
2. Differentiate between vertebrate and invertebrates.
3. Compare and contrast how vertebrates are classified and how invertebrates are classified.
4. Give a basic description of each kingdom.

5. Classify plants into groups based on characteristics.
6. Compare and contrast seed producing plants to non-seed producing plants.
7. Use a model to classify living things (Dichotomous Key).
8. Use the structure of plants and animals to classify them.
9. Identify patterns in grouped organisms. (e.g. birds have beaks and are vertebrates)
10. Differentiate between plants that are deciduous and coniferous.
11. Compare and contrast between vascular and non-vascular plants.
12. Classify plants using terms such as vascular/non-vascular, angiosperms/gymnosperms, and deciduous/coniferous.

For the teacher to know for their own understanding and to avoid misconceptions:

1. Students should be actively classifying animals and plants. Picture perfect has several great activities.
2. This unit is all about using observations and data to classify living things. Keep that at your focus as you prepare lessons.
3. There are six kingdoms NOT five: Animalia (Animals), Plantae (Plants), Fungi (Fungus), Protista (Protists), Eubacteria (Bacteria that is everywhere), Archaeobacteria (Primitive Bacteria).
4. Plants that are non-vascular cannot be gymnosperms or angiosperms. They are also not classified as deciduous or coniferous. These plants are very simple and low to the ground. (e.g. mosses, algae).
5. Angiosperms produce flowers and fruit. Gymnosperms produce cones. Magnolia tree appear to have both but the “cones” are actually classified as fruit making the magnolia an angiosperm.
6. Most animals (97%) are invertebrates. There are five groups of vertebrates: fish, amphibians, reptiles, birds (aves), and mammals.

Activities (Suggestions)

- ✓ Name that Shell (Picture Perfect)
- ✓ Cards with animals. Have students design a method for how they classified the different animal cards.
- ✓ Cards with plants.

Notes:

This unit leans heavily on making observations, reading, and then classifying living things. Be very careful about making blanket statements. For example, a dolphin and shark may both appear to be fish because they swim; however, swimming is not a characteristics that is reliable for classification. Make sure you research and prepare to answer these types of questions because elementary level kids love learning about animals. They have natural interest in this topic and that can lead to a very rich discussion.