

The Classification System

Question:

How can we classify ourselves? What steps must we take in order to put a label on what we are and what we are not?

Classifying involves grouping things into categories based on similar characteristics. Like comparing, it is something we do in our day-to-day lives. We classify the clothes we put into our closet. We classify the food we put in our kitchen cabinets. Some of us classify the music CDs in our collection.

In science, we classify organisms according to kingdom, phylum, class, order, family, genus and species. Listed below is a description of the five kingdoms.

The Five Kingdoms

Monera:

One-celled or a colony of cells, decomposers and parasites, move in water and both producers and consumers. Example = bacteria, cyanobacteria

Protista:

One-celled or multi-celled, absorbs food, moves with flagella, both asexual and sexual, producers and consumers. Example = plankton, algae, amoeba

Fungi:

One-celled or multi-celled, decomposers, parasites, absorb food, asexual reproduction and budding, consumer. Example = mushrooms, molds, mildew, yeast

Plantae:

Multi-celled, photosynthesis, mostly producers. Example = angiosperms, gymnosperms, mosses, ferns

Animalia:

Multi-celled, parasite, prey, both asexual and sexual, consumer Example = sponges, worms, insects, starfish, mammals, fish

Inquiry Activity 1:

1. What are the key characteristics that determine one kingdom from another?
2. Can you take any organism and determine its place amongst the five kingdoms?

Conclusions:

The classification system is one the most important aspects of the scientific community and is key to learning how we understand and name organisms.

Inquiry Activity 2:

Using the hierarchy of classification (Kingdom, Phylum, Class, Order, Family, Genus, and Species) that we have just learned about, take one organism from each of the five kingdoms and classify it.