

Unit 1 Handout 32

Lesson 6: Introduction to Protists

Purpose: To acquire background information about protists.

Instructions: Follow along as we fill in these notes together.

Most protists are single-celled organisms.

So far we have learned about two different kingdoms of life: plants and animals. All plants are multicellular, eukaryotic autotrophs make their own food through photosynthesis. All animals are multicellular, eukaryotic heterotrophs that must hunt, scavenge, or graze for food.

In lesson 6 we'll begin investigating a third kingdom of life call protists. Protists are like the "left overs" of the classification system. They don't quite fit anywhere so taxonomists placed them into their own kingdom. Although protists are extremely diverse they all have a few things in common:

1. They are all eukaryotes which means they all have a nucleus in their cells.
2. They all live in a wet or moist habitat.

How do they differ? Check this out. (Note: don't read this table across. To read this table, look at each column on its own. This shows the characteristics protists can have.)

Similar Kingdoms	Cell Arrangement	Energy	Nucleus
Animal	Unicellular	Heterotrophs	One (mononucleated)
Plants	Multicellular	Autotrophs	Two (binucleated)
Fungi	Colonial	Both	Nuclei Many

On to the back!

There are three types of protists.

When we observe protists we notice some are similar to plants, some are similar to animals, and some are similar to fungi. Therefore, scientists decided to sub-classify protists into smaller groups based on which kingdom they most resemble. The table below shows three subgroups of protists that we will explore in this unit.

Subgroup	Similar Kingdom	Common Characteristics
Protozoa	Animal	Heterotroph
Algae	Plant	Autotroph (have chlorophyll)
Decomposers	Decomposer	Heterotroph

Methods of Movement

Scientists have also classified protists based on how they move. There are three general methods through which we see protists move.

How they move	Description
Cilia	Short, hair-like structures that coat the entire body.
Flagella (s. flagellum)	Long, whip-like structures
Pseudopods	False feet → temporary bulges