

## New Terms - The Diversity of Life

<b>taxonomy -</b>	the classification of organisms, which generally classifies them according to their reproductive parts.
<b>binomial nomenclature -</b>	basis for naming organisms, particularly plants and animals. Is the scientific naming used to identify the genus and the species - the two items that distinguish one organism from another. Like <i>Homo sapiens</i> (the first is the genus, the second is the species).
<b>species -</b>	organisms that interbreed under normal circumstances, like horses with horses, people with people.
<b>genus -</b>	groups of similar species the plural form is genera.
<b>family -</b>	groups of similar genera
<b>order -</b>	groups of similar families
<b>class -</b>	groups of similar orders
<b>divisions -</b>	in the plant kingdom they are groups of similar classes
<b>phyla -</b>	phylum is the singular form and in the animal kingdom is the groups of similar classes.
<b>kingdom -</b>	groups of similar organisms (like animals, plants, etc.)
<b>animalia -</b>	kingdom of animals that is divided into two parts, invertebrates (animals without backbones) and vertebrates (animals with backbones).
<b>plantae -</b>	kingdom of plants including mosses, ferns, and seed producing plants.
<b>fungi -</b>	kingdom of fungi like yeasts, molds, and mushrooms
<b>protista -</b>	includes the protozoa and other one-celled eukaryotic organisms like one-celled algae.
<b>monera -</b>	the bacteria and cyanobacteria, single-celled organisms that are prokaryotic
<b>cocci -</b>	type of spherical bacteria, there are 3 types (staphylococci - irregular clusters of cocci, streptococci - chains of cocci bacteria - the cause of strep throat, and diplococci - pairs of cocci).
<b>bacilli -</b>	rod-shaped bacteria
<b>spirochetes -</b>	rigid spiral bacteria
<b>spirilla -</b>	flexible spiral bacteria
<b>heterotrophic -</b>	describes an organism that gets its food from organic matter
<b>saprobic -</b>	describes organisms that feed on dead or decaying organic matter - describes most of the bacteria.
<b>autotrophic -</b>	organisms that are able to produce their own food - especially by photosynthesis.
<b>photosynthetic bacteria -</b>	autotrophic bacteria with pigments that permit them to produce food by photosynthesis.

<b>chemosynthetic bacteria</b>	- autotrophic bacteria that use chemical reactions as a source of energy.
<b>psychophilic</b>	- describes bacteria that live in very cold temperatures.
<b>mesophilic</b>	- describes bacteria that live at human body temperatures.
<b>thermophilic</b>	- describes bacteria that live at very high temperatures.
<b>facultative</b>	- describes bacteria that can live either with or without air.
<b>pathogenic</b>	- describes bacteria that cause human disease
<b>cyanobacteria</b>	- blue-green algae, a major part of the plankton in the oceans.
<b>virus</b>	- acellular particles that lack properties of living things but are able to replicate inside living cells.
<b>genome</b>	- the core of the virus that contains the genes
<b>capsid</b>	- the protein coating of a virus
<b>Protozoa</b>	- single-celled or colonial organisms, subdivided into 4 different phyla according to their method of movement.
<b>Mastigophora</b>	- characterized by a single whip-like flagella, <i>Euglena</i> is a good example.
<b>Sarcodina</b>	- characterized by movement with pseudopodia which are simply extensions of the cytoplasm. Typical examples are the amoebas.
<b>Ciliophora</b>	- move by means of small "hairs" called cilia. The <i>Paramecium</i> is a well-known member of this phyla.
<b>Sporozoa</b>	- exclusively parasites, they produce spore-like bodies. Plasmodium is a good example of this phyla and is the cause of malaria.
<b>Algae</b>	- refers to a large number of photosynthetic organisms that are not considered plants, though they have chlorophyll. Most live in the oceans.
<b>Rhodophyta</b>	- the red algae
<b>Pyrophyta</b>	- represented by the dinoflagellates, which are single-celled organisms surrounded by a plate of armor and they have two flagella - when reproducing in large numbers create the condition known as red tide.
<b>Chrysophyta</b>	- the golden algae and are represented by the diatoms which consist of cell walls containing silica.
<b>Phaeophyta</b>	- brown algae
<b>Chlorophyta</b>	- green algae
<b>Oomycetes</b>	- called water molds and have special sexual spores called oospores. Also in sexual reproduction they form a special cell called a zoospore which has a flagella and is able to move like an animal cell.
<b>Zygomycetes</b>	- commonly called the terrestrial fungi. They are coenocytic - meaning the hyphae have no cross walls. Sexually opposite hyphae form zygospores. Commonly represented by the grey or white mold on bread.
<b>Ascomycetes</b>	- members range from mildews to cottony molds to large cup-like fungi. During sexual reproduction they form a sac known as the ascus that is

**Basidiomycetes** - filled with ascospores.  
contain basidiospores, sexual spores on basidia (a club-like structure).  
Mushrooms are a well-known member of this class.