

Evolution Vocabulary Terms

- **Fossil** - The remains or impression of an organism preserved in petrified form or as a mold or cast in rock.
- **Biochemistry** - The branch of biology dealing with the chemicals and chemical processes that occur within living organisms.
- **Anatomy** - The branch of science concerned with the physical structure of organisms.
- **Evolution** - The process by which populations change over time.
- **Homologous** - Having similar structure and anatomical position (but not necessarily the same function) in different organisms, suggesting a common ancestry or evolutionary origin (e.g. wings of bats and arms of humans are homologous).
- **Vestigial Structures** - Structures that have lost most or all of their ancestral function in a given species, but have been retained through evolution. (In humans the appendix is an example.)
- **Species** - (The least inclusive units of biological classification.) The largest group of organisms capable of freely interbreeding and producing fertile offspring.
- **Population** - A group of individuals of one species that live in a particular geographic location.
- **Natural Selection** - The gradual process by which heritable biological traits become either more or less common in a population as a function of the effect of inherited traits on the differential reproductive success of organisms interacting with their environment. (Also, known by the phrase survival of the fittest and was suggested by Charles Darwin)
- **Variation** - Any difference in phenotype and/or genotype in a species genetic or anatomical composition.
- **Geographic Isolation** - The physical separation of populations of similar species preventing the exchange of genetic material and potentially leading to speciation.
- **Speciation** - The evolutionary process by which new biological species arise.
- **Phylogenetic Tree** or **Evolutionary Tree** - A branching diagram showing the evolutionary relationships among biological species.
- **Cladogram** - A branching diagram depicting the successive points of species divergence from common ancestral lines without regard to the degree of deviation.
- **Binomial Nomenclature** - A naming system that is composed of a genus and unique species identifying organisms. (created by Carolus Linneaus)
- **Taxonomy** - The branch of biology that classifies organisms into taxa.

- **Dichotomous Key** - A tool used to assist in the determination of classification of organisms, constructed of pairs of opposing statements.
- **Pathogen** - An organism or other agent that causes disease.
- **Genetic Recombination** - The general term for the production of offspring that combine traits of the two parents.
- **Adaptation** - A trait or characteristic that arises in an organism as a result of natural selection that allows for better survival and reproduction of the species.