



Adaptations and Evolution Vocabulary

Adaptation – modification of an organism or its parts that makes it more fit for existence under the conditions of its environment

Artificial selection – a deliberate form of selection used in breeding plants and animals; human selection of genetic traits as opposed to *natural selection* of genetic traits

Cladogram – an evolutionary family tree; a way of visually presenting relationships between organisms

Coevolution – a form of evolution involving successive changes in two or more ecologically interdependent species (like a plant and its pollinators) that affect their interactions

Convergent Evolution – the evolution of similar characteristics in unrelated species due to similar environmental stresses; example: thorns on a rose and spines on a cactus

Darwinism – a theory of evolution by natural selection put forward by Charles Darwin

Evolution - a theory that explains the origin and development of species on earth; the process of *speciation*; a gradual change in a group of living things

Extinction – the permanent disappearance of a species

Fossil – the remains of a living thing that have been preserved over time

Gene – a basic unit of heredity in a living thing that carries the instructions needed to make a particular protein, which build and control all cells in the body

Gene pool – all the genes in a breeding population

Genetic Variation – genetic diversity in a population; natural differences between living things

Genotype – the genetic makeup of a cell or living thing

Hybrid – the offspring of parents from two different species. Example: a horse and a donkey make a mule. Hybrids are common in the plant kingdom and uncommon in the animal kingdom

Mimic – a living thing that imitates another. Example: some flies have evolved to look like bees, with yellow and black stripes

Missing link – a missing page in the evolutionary fossil record; the lack of a *transitional form* between two organisms

Mutation – a change in a cell's genetic material

Natural Selection – a “weeding out” process that favors the fittest and best-adapted form of an organism

Phenotype – the visible characteristics produced by a genotype. Example: blue eyes, brown hair etc

Polymorphic – when members of the same species have several different *genotypes*; example: humans have several different blood types

Speciation – the development of a new species from an existing species

Sexual Selection – a “weeding out” process that favors the most sexually attractive and virile individuals in a population. What is considered sexually attractive is subject to opposite sex preference

Transitional Form – a species that links two groups of living things; a life form that falls between two other life forms in the evolutionary *fossil* record