

Lesson 7.2

Adaptive radiation-evolution of a number of divergent species from a common ancestor, each species becoming adapted to occupy a different environment

Homologous structure- characteristic of organisms that is derived from a common ancestor

Molecular record- Similarities in DNA are used to determine the relationships between species

Vestigial organ- An organ that was once useful in an animal's evolutionary past, but now has no apparent nor predictable Function

Divergent evolution- the process by which a species evolves into two or more descendant or different forms

Evolution- A process in which something changes into a different and often more complex or better form

Lesson 7.3

Natural selection- The process where organisms better adapted to their environment tend to survive and produce more offspring.

Variation-a difference in structure, form or function

Fitness- A relative measure of reproductive success of an organism in passing its genes to the next generation.

Adaptation-a physical characteristic that increases the organisms ability to survive

Lesson 7.5

Extinction-the dying out of a species

Selection pressure-the environmental factors that influence the direction of natural selection

Lesson 7.6

Allopatric speciation- speciation that occurs when biological populations of the same species become isolated due to geographical changes such as mountain building

Reproductive isolation- the inability of a species to breed successfully with related species due to geographical, behavioral, physiological, or genetic barriers

Speciation- The process in which new genetically distinct species evolve

Species-a group of organisms capable of mating and producing fertile offspring

Directional Selection- a mode of natural selection in which an extreme phenotype is favored over other phenotypes, causing the allele frequency to shift over time in the direction of that phenotype

Lesson 7.6

Founder Effect- when the allele frequencies change as a result of the migration of a small subgroup of a population

Bottleneck Effect- change in the allele frequencies of a population due to a rapid decrease in size (usually due to a natural disaster or disease)

Genetic Drift- variation in the relative frequency of different genotypes in a small population, owing to the chance disappearance of particular genes as individuals die or do not reproduce