

Vocabulary

Allele Frequency-proportion of one allele, compared with all the alleles for that trait, in the gene pool

Mutation Rate-amount of mutation in a population

Species-group of organisms so similar to one another that they can breed and produce fertile offspring

Allele-any of the alternative forms of a gene that occurs at a specific place on a chromosome

Immigration-movement of individuals into a population

Genotype-collection of all of an organism's genetic information that codes for traits

Mutation-change in the DNA sequence

Mitosis- process by which a cell divides its nucleus and contents

Biotic factors- living things, such as plants, animals, fungi, and bacteria

Ecological niche- all of the physical, chemical, and biological factors that a species needs to survive, stay healthy, and reproduce in an ecosystem.

Secondary succession-reestablishment of a damaged ecosystem in an area where the soil was left intact

Mutualism-ecological relationship between two species in which each species gets a benefit from the interaction

Fitness-measure of an organism's ability to survive and produce offspring relative to other members of a population

Survivorship curve- graph showing the surviving members of each age group of a population over time

Pioneer species- organism that is the first to live in a previously uninhabited area

Haploid cells- cell that has only one copy of each chromosome

Biome-region or community of organisms characterized by the climate conditions and plant communities that thrive there

Ecosystem-collection of organisms and nonliving things, such as climate, soil, water, and rocks, in an area

Speciation- evolution of two or more species from one ancestral species

Extinction-elimination of a species from earth

Adaptation- inherited trait that is selected for over time because it allows organisms to better survive in their environment

Semiconservative DNA replication- two strands of the DNA helix separate and free nucleotides pair with the exposed bases on the single chains to form two new DNA molecules, each containing one original and one newly synthesized strand of DNA

Gene flow- physical movement of alleles from one population to another

Carrier-organism whose genome contains a gene for a certain trait or disease that is not expressed in the organisms phenotype

Autosomal genes- chromosome that contains genes for characteristics not directly related to the sex on the organism.

Sex-linked trait- trait associated with a gene that is carried only by the male or female parent

Emigration-movement of individuals out of a population

Analogous structures-body part that is similar in function as a body part of another organism but is structurally different (same job, looks different)

Vestigial organs-remnants of an organ or structure that functioned in an earlier ancestor (wisdom teeth)

Biodiversity- variety of life within an area

Abiotic factors-non-living factor in an ecosystem such as moisture, temperature, wind, sunlight, soil, and minerals

Cell cycle stages- pattern of growth, DNA replication, and cell division that occurs in a eukaryotic cell

Parasitism- Ecological relationship in which one organism benefits by harming another organism

Commensalism-ecological relationship in which one species receives a benefit but the other species is not affected one way or another

Embryological evolution-the similarity of early embryos of different species of vertebrates, it suggests evolution from a distant common ancestor

Artificial Selection-process by which humans modify a species by breeding it for certain traits

Paleontology-study of fossils or extinct organisms

Diploid cells-cell that has two copies of each chromosome, one from an egg and one from a sperm

Population-all of the individuals of a species that live in the same area

Hybridization-is the process through which the characteristics of organisms change over successive generations, by means of genetic variation and natural selection.

Temporal isolation- isolation between populations due to barriers related to time, such as differences in mating periods or differences in the time of day that individuals are most active

Karyotype- image of all of the chromosomes in a cell

Polygenic traits- trait that is produced by two or more genes

Gene pool- collection of alleles found in all of the individuals of a population

Population- all of the individuals of a species that live in the same area

Genetic drift- change in allele frequencies due to chance alone, occurring most commonly in small populations.

Predation- process by which one organism hunts and kills another organism for food

Genetic drift- change in allele frequencies due to chance alone, occurring most commonly in small populations

Phenotype- collection of all of an organism's physical characteristics

Homologous structures- body part that is similar in structure on different organisms but performs different functions (Looks the same, different job)

Meiosis- form of nuclear division that divides a diploid cell into haploid cells; important in forming gametes for sexual reproduction

Polygenic traits-trait that is produced by two or more genes

Codon- sequence of three nucleotides that codes for one amino acid

Primary Succession- establishment and development of an ecosystem in an area that was previously uninhabited

Competition- ecological relationship in which two organisms attempt to obtain the same resource

Community- collection of all the different populations that live in one area

Epistatic gene- gene that determines whether or not a trait will be expressed.
(skin color, hair color, ect)

Natural selection- mechanisms by which individuals that have inherited beneficial adaptations produce more offspring on average than do other individuals

Carrying capacity-number of individuals that the resources of an environment can normally and persistently support

Habitat- combined biotic and abiotic factors (living/nonliving) found in the area where an organism lives.

Fossil- trace of an organism from the past

Pedigree chart- chart of the phenotypes and genotypes in a family that is used to determine whether an individual is a carrier of a recessive allele.

Stabilizing selection- pathway of natural selection in which intermediate phenotypes are selected over phenotypes at both extremes

Hybridization- the crossing of two different species that share common genes