

Stem cell

An irreversible increase in size

Metabolism

The ability to react to changes in the environment

Anabolism

Getting rid of the waste products of metabolism

Catabolism

Producing offspring either sexually or asexually

Homeostasis

A component of animal cell membranes reducing membrane fluidity and permeability to some solutes

Nutrition

The movement of ions/particles across a cell membrane down the concentration gradient with the aid of an integral protein

Growth

An undifferentiated cell that can divide over and over to make many cells of different types

Response

The sum of all reactions that occur in an organism

Excretion

The synthesis of complex molecules from simpler molecules

Reproduction

The breakdown of complex molecules into simpler molecules

Cholesterol

Keeping conditions inside a cell within tolerable limits

Facilitated Diffusion

Obtaining food, to provide energy and materials for growth

Active Transport

The whole of the genetic information of an organism

Endocytosis

A change in the base sequence of a gene

Exocytosis

Small, circular pieces of extra DNA found in prokaryotes

Semi-conservative

A nucleus having two chromosome of each type as in gametes

Gene

A nucleus having one chromosome of each type as in somatic (body) cells

Allele

A micrograph showing the chromosomes of an organism in homologous pairs of decreasing length

Genome

The movement of ions/particles across a cell membrane up the concentration gradient with the aid of an integral protein and ATP

Mutation

The process of bringing material into a cell by pinching off a small piece of plasma membrane forming a vesicle

Plasmid

The process of releasing a material outside a cell by fusing a vesicle with the plasma membrane

Diploid

The property of DNA after replication in which one of the strands is an original and the other a newly synthesized strand

Haploid

A heritable factor that consists of a length of DNA and influences a specific characteristic

Karyogram

A specific form of a gene that differs from other alleles of that gene by only one or a few bases

Crossing over

An outcome of the diet that can be caused by deficiency, imbalance or excess of nutrients

Gamete

The study of relationships between living organisms and between organisms and their environment

Mesocosm

A group of organisms of the same species who live in the same area at the same time

Clade

A community and its abiotic environment

Mineral

Interior of a prokaryotic cell, also the region between the nucleus and plasma membrane of eukaryotic cells

Vitamin

Active in membrane synthesis and other synthetic and metabolic processes

Malnutrition

The random exchange of parts of the chromatids of homologous chromosomes during Prophase I of meiosis

Ecology

Haploid sex cells (sperm and egg) produced by meiosis

Population

An experimental tool that brings ecologically relevant components of the natural environment under controlled conditions

Ecosystem

A group of organisms, both alive and now extinct, that have evolved from a common ancestor

Cytoplasm

Chemical elements in ionic form needed in the diet in relatively small quantities

Rough Endoplasmic reticulum  
(rough E.R.)

Organic compounds needed in the diet in very small amounts

Lysosome

Compounds containing carbon that are found in living organisms (except hydrogencarbonates, carbonates, and oxides of carbon)

Carrier

Having two identical alleles of a gene

Sex Linked

Having two different alleles of a gene

Test Cross

The particular position on homologous chromosomes of a gene

Phenotype

Alleles which have a particular effect on the phenotype when present in heterozygotes, but a greater effect in homozygotes

Genotype

An allele which has the same effect on the phenotype whether present in the homozygous or heterozygous state

Organic Compound

Digestive organelle where macromolecules are hydrolyzed

Homozygous

An individual that has a recessive allele of a gene that does not have an effect on the phenotype

Heterozygous

Allele carried on the X chromosome

Locus

Testing a suspected heterozygote by crossing it with a known homozygous recessive

Codominant Alleles

Outward expression of characteristic in organism

Dominant Allele

Alleles possessed by an organism



Recessive Allele

A position in a food chain (ex. primary consumer)

Tidal Volume

An organism that ingests other organic matter that is living or recently killed

Nutrient

Number of contractions of the heart per minute

Resting Potential

Number of inhalations or exhalations per minute

Action Potential

The passive movement of water molecules, across a partially permeable membrane, from a region of lower solute concentration to a region of higher solute concentration

Evolution

An organism or virus that causes a disease

Trophic level

Allele which only has an effect on the phenotype when present in the homozygous state

Consumer

Volume of air taken in or out with each normal inhalation or exhalation

Heart Rate

A chemical substance found in foods that is used by the human body

Ventilation Rate

The electro-chemical gradient of a neuron when it is not stimulated (-70mV)

Osmosis

The electro-chemical gradient of a neuron when a signal travels along the neuron (+35mV)

Pathogen

The cumulative change in the heritable characteristics of a population

Saprotrophs

The controlled release of energy from organic compounds in cells to form ATP

Detritivores

Specific portion of an enzyme that binds the substrate

Nucleus

A pair of chromosomes of the same length, centromere position, and staining pattern that possess genes for the same characters at corresponding loci. One is inherited from the organism's father, the other from the mother

Diffusion

A group of organisms of identical genotype OR a group of cells descended from a single parent cell

Enzyme

Group of organisms that can interbreed and produce fertile offspring

Denaturation

Where DNA is concentrated

Cell Respiration

An organism that lives on or in dead organic matter, secreting digestive enzymes into it and absorbing the products of digestion

Active Site

An organism that ingests dead organic matter

Homologous Chromosomes

Control center, protein synthesis begins here, initiates mitosis, contains nucleolus, which synthesizes ribosomes

Clone

Passive movement of particles from a region of high concentration to a region of low concentration across a cell membrane

Species

A macromolecule serving as a catalyst, a chemical agent that changes the rate of a reaction without being consumed by the reaction

Nucleoid

A structural change in a protein that results in the loss of its biological properties

Golgi Apparatus

Attachment structure on the surface of some prokaryotes

Mitochondrion

A group of populations living and interacting with each other in an area

Plasma Membrane

An organism that obtains organic molecules from other organisms

Cell Wall

An organism that synthesizes its organic molecules from simple inorganic substances

Ribosomes

Flagella

Pili

Packages and modifies molecules, especially for secretion or storage

Community

Where cellular respiration occurs and most ATP is generated

Heterotroph

Encloses cytoplasm. Selective barrier that allows passage of oxygen, nutrients, and wastes

Autotroph

Maintains cell shape, protects cell from mechanical damage and excessive water uptake

Completes protein synthesis

Locomotion organelles of some bacteria