

Final - study guide

Scientific method - hypothesis, controlled variables, manipulated variable, responding variable, experimental control, data, conclusion

Atom (stability, *polarity, element)

Covalent bonds and ionic bonds

Valence electrons

Isotopes (e-, p, n)

Macromolecule examples (lipid, carb. nucleic acid)

Solute/solvent

Producer, consumer, decomposer

Mutualism, predation, parasitism, commensalism

*N-fixation

Limiting factor

Niche

Trophic level

Abiotic

*Chemosynthetic

Diversity

Greenhouse effect

Succession

Cycles of matter -vs- energy (C, N, H₂O)

Cell organelles (function and picture - mitochondria, endoplasmic reticulum, Golgi body, nucleus, cell membrane, cell wall, plant vs animal)

Diffusion/osmosis

Mitosis (steps in order and major occurrences; plants vs.

animals)

* photosynthesis:

light reactions - products, where

dark reactions - (Calvin cycle) require, where

* cellular respiration:

glycolysis - where it happens

cellular (oxidative) respiration -

products, where it happens

fermentation - lactic acid, no O₂, sore muscles

Structure of DNA

Structure of RNA

DNA polymerase

DNA transcription

DNA translation

mRNA, tRNA, rRNA

Adenine = thymine

Guanine = cytosine

nucleotide

complementary DNA strand

Dominant and recessive

Genotype and phenotype

Homozygous and heterozygous

Monohybrid crosses (1 trait)

Meiosis - product (gametes)

Mutations

Natural selection

Half-life

Radioactive dating