

## Compare and Contrast Biology 199 midterm review

Trace elements		6 abundant elements
Species		Population
Matter		Chemical element
Hypothesis		Theory
Domain		Kingdom
Prokaryotic cell		Eukaryotic cell
DNA (genetic Material)		Nucleolus
Evolution		Diversity of Life
Natural Selection		Adaptation
Nutrient Cycle		Energy flow
Elements		Compounds
Proton	Neutron	Electron
Atom		Ion
Ionic bond		Covalent bond
Polar bond		Hydrogen bond
Polar molecule		Non polar molecule
Cohesion		Adhesion
Solvent	Solute	Solution
Acid	Buffer	Base
pH	Hydrogen ion	Hydroxyl ion
Hydroxyl (_OH)	Carboxyl (COOH)	Amine (NH <sub>2</sub> )
Monomer		Polymer
Dehydration Sym		Hydrolysis
Monosaccharide	Disaccharide	Polysaccharide
Glycogen	Starch	Cellulose
Hydrophobic tails	phospholipid	Hydrophilic heads
Triglyceride	Glycerol	Fatty acids
Amino Acids		Protein
Peptide bond	protein	Dipeptide
ATP		ADP
Polypeptide		Protein
Primary	Secondary	Tertiary
Carbohydrate	Lipid	protein

Lipids	Triglycerides	steroids
Cell volume		Surface area ration
Plasma membrane		Cell wall
Nucleus		Nucleotide
Rough ER		Smooth ER
Golgi apparatus	Lyosomes	Vacuoles
Contractual vacuole		Central vacuole
Chloroplast		Mitochondria
Cilia		Flagella
Potential energy		Kinetic energy
Heat energy		Chemical energy
Endergonic		Exegetic
Enzymes	Active site	Activation energy
Diffusion		Osmosis
Passive transport	Facilitated transport	Active transport
Hypertonic	Hypotonic	Isotonic
Microfilament	Intermediate Filament	Microtubules
Tight junctions	Anchoring junctions	Gap junctions
Cell surface		Extracellular matrix
1 <sup>st</sup> law thermo		2 <sup>nd</sup> law thermo
Energy of activation		Enzyme
Competitive Inhibitor		Non Competitive inhibitor
Transport protein		Na <sup>+</sup> K <sup>+</sup> pump
Endocytosis		Exocytosis
Aerobic respiration		Anaerobic respiration
Breathing		Cellular respiration
Oxidation	Redox reaction	Reduction
NAD <sup>+</sup>	FADH	H <sup>+</sup>
Electron carriers	Electron transport system	Oxidative phosphorylation
Citric acid cycle		Glycolysis
Substrate level phosphorylation		Oxidative phosphorylation
Fermentation	Lactic acid fermentation	Alcohol fermentation
chemiosmosis		ATP formation