

Chapters 5,6,7,8, 9, and 22

Where applicable, be able to define, describe, and/or illustrate, know examples of, know the Biological significance of and know Biological principles relating to each of the following:

Potential and Kinetic Energy	Oxidative Phosphorylation	Haploid (1n)
Metabolism	Photosynthesis	Diploid (2n)
Enzymes	Chloroplast	Unduplicated Chromosome
Metabolic Pathway	Thylakoids and Stroma	Duplicated Chromosome
Chemical Reaction	Chlorophyll a	Sex Chromosomes
Active Site and Substrate(s)	Photophosphorylation	Synapsis
Cofactor	Light-Dependent Reactions	Tetrad
Competitive Inhibitor	Photolysis	Chiasmata
Noncompetitive Inhibitor	Photons and Wavelength	Crossing Over
Adenosine Triphosphate (ATP)	NADP/NADPH	Gametes
Adenosine Diphosphate (ADP)	Light-Independent Reactions	Character
Cellular Respiration	Calvin Cycle	Trait
Glycolysis	Carbon Dioxide	Gregor Mendel
Glucose	Starch	Monohybrid Cross
Pyruvate	Mitosis	Dihybrid Cross
Krebs Cycle (Citric Acid Cycle)	Interphase (G1, S, G2)	Punnett Square
Acetyl Coenzyme A (Co A)	Prophase	Generations (P, F1, F2, F3...)
Mitochondria	Metaphase	Complete Dominance
Inner membrane	Anaphase	Dominant Trait
Matrix	Telophase	Recessive Trait
ATP Synthase	Cytokinesis	Gene and Allele
Electron Transport Chain	Meiosis	Locus
Cytochromes	Homologous Chromosomes	Phenotype
NAD ⁺ /NADH	Chromatin	Genotype
FAD/FADH ₂	Chromosome	Homozygous
Terminal Electron Acceptor	Sister Chromatids	Heterozygous
Substrate-Level Phosphorylation	Centromere	

Chapter 22 - handout terms

Know how enzymes related to metabolic reactions

Know the ways that the concentration of active enzymes can be controlled inside a cell

General Reaction Formula of Cellular Respiration and Photosynthesis

Names and numbers of molecules that enter/exit the Glycolysis, Krebs Cycle, and Electron Transport Chain

Know where the Glycolysis, Krebs Cycle, and Electron Transport Chain pathways specifically occur in a cell

Role of Oxygen, Water, ATP, NADH, FADH₂ and Carbon Dioxide in Cellular Respiration

Role of Carbon Dioxide, Water, ATP, NADPH, and Oxygen in Photosynthesis

Know what molecules enter and are produced by the Light Dependent and Light-Independent Reaction pathways

Know when and where the Light Dependent and Light-Independent Reaction pathways specifically occur

Stages of Mitosis and details of each and Functions/purposes of Mitosis (one 2n cell → two 2n cells)

Stages of Meiosis and details of each and Functions/purposes of Meiosis (one 2n cell → four 1n cells)

Mendel's Principle of Segregation and Principle of Independent Assortment

Know how to solve and interpret results of a Punnett Square problem (4-square)

Chapter 22 reading assignment terms and homework questions