AP Biology Curriculum Map

Unit Name	Unit length	Topics	Book Chapters
UNIT 1: Chemistry of Life	2 weeks	Structure of Water and Hydrogen Bonding, Elements of Life, Introduction to Biological Macromolecules, Properties of Biological Macromolecules, Structure and Function of Biological Macromolecules, Nucleic Acids	3, 4, 5
UNIT 2: Cell Structure and Function	3 weeks	Cell Structure: Subcellular Components, Cell Structure and Function, Cell Size, Plasma Membranes, Membrane Permeability, Membrane Transport, Facilitated Diffusion, Tonicity and Osmoregulation, Mechanisms of Transport, Cell Compartmentalization, Origins of Cell Compartmentalization	6, 7
UNIT 3: Cellular Energetics	4 weeks	Enzyme Structure, Enzyme Catalysis, Environmental Impacts on Enzyme Function, Cellular Energy, Photosynthesis, Cellular Respiration, Fitness	8, 9, 10
UNIT 4: Cell Communication and Cell Cycle	3 weeks	Cell Communication, Introduction to Signal Transduction, Signal Transduction, Changes in Signal Transduction Pathways, Feedback, Cell Cycle, Regulation of Cell Cycle	11, 12
UNIT 5: Heredity	3 weeks	Meiosis, Meiosis and Genetic Diversity, Mendelian Genetics, Non-Mendelian Genetics, Environmental Effects of Phenotype, Chromosomal Inheritance	13, 14, 15
UNIT 6: Gene Expression and Regulation	4 weeks	DNA and RNA Structure, Replication, Transcription and RNA Processing, Translation, Regulation of Gene Expression, Gene Expression and Cell Specialization, Mutations, Biotechnology	16, 17, 18, 20
UNIT 7: Natural Selection	5 weeks	Introduction to Natural Selection, Natural Selection, Artificial Selection, Population Genetics, Hardy-Weinberg Equilibrium, Evidence of Evolution, Common Ancestry	22, 23, 24, 25, 26

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UNIT 8: Ecology	4 weeks	Responses to the Environment, Energy Flows Through Ecosystems, Population Ecology, Effect of Density on Populations, Community Ecology, Biodiversity, Disruptions to Ecosystems	52, 53, 54, 55