

Biology 1 CP Curriculum Map

2023-2024

Schedule	Standards	McGraw Hill Inspire Biology
Week 1	Establish need for Biological study, Safety, SEPs, Scientific Method, Science Fair	
Week 2	B-LS1-3. Plan and conduct an investigation to provide evidence that feedback mechanisms maintain homeostasis. (Not tested on EOC) B-LS1-2. Develop and use a model to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. (Not tested on EOC)	<i>Unit 1 Module 1: Study of Life Examples p. 681-687, C&E Cell, tissue, organ, organ system, organism...population, community, ecosystem. p. 30-31</i>
Week 3	B-LS1-6. Construct and revise an explanation based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other elements to form amino acids and other large carbon-based molecules necessary for essential life processes. (Intro)	<i>Unit 2 Module 6: Chemistry in Biology (Unit 2 Module 7: Optional) Unit 2 Module 8: Cellular Energy</i>
Week 4	B-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing, and maintaining complex organisms. (Add cell structure as essential prior knowledge)	<i>Unit 2 Module 9: Cellular Reproduction & Sexual Reproduction</i>
Week 5 Benchmark Test	B-LS1-4. Use a model to illustrate the role of cellular division (mitosis) and differentiation in producing, and maintaining complex organisms.	<i>Unit 2 Module 9-Cellular Reproduction & Sexual Reproduction</i>
Week 6	B-LS1-5 Use a model to illustrate how photosynthesis transforms light energy into stored chemical energy.	<i>Unit 2 Module 6: Chemistry in Biology (Unit 2 Module 7: Optional) Unit 2 Module 8: Cellular Energy</i>
Week 7	B-LS1-7. Use a model to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules are broken and the bonds in new compounds are formed, resulting in a net transfer of energy.	<i>Unit 2 Module 6: Chemistry in Biology (Unit 2 Module 7:Optional) Unit 2 Module 8: Cellular Energy</i>
Week 8	B-LS3-2. Make and defend a claim based on evidence that inheritable genetic variations may result from (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors.	<i>Unit 2 Module 9: Cellular Reproduction & Sexual Reproduction Unit 3 Module 10: Intro to Genetics & Patterns of Inheritance</i>
Week 9	B-LS3-3. Apply concepts of statistics and probability to explain the variation and distribution of expressed traits in a population.	<i>Unit 3 Module 9: Cellular Reproduction & Sexual Reproduction</i>
Weeks 10-11	B-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins, which carry out the essential functions of life through systems of specialized cells.	<i>Unit 3 Module 11: Molecular Genetics</i>
Week 12 Benchmark Test	B-LS2-1. Use mathematical and/or computational representations to support explanations of biotic and abiotic factors that affect carrying capacity of ecosystems at different scales.	<i>Unit 1 Module 2: Principles of Ecology Carrying Capacity is in Module 4</i>
Week 13	B-LS2-5. Develop a model to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere.	<i>Unit 1 Module 2: Principles of Ecology Unit 1 Module 4: Population Ecology</i>
Week 14	B-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on biodiversity and ecosystem health.	<i>Unit 1 Module 5: Biodiversity & Conservation</i>
Week 15	B-LS4-1. Communicate scientific information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.	<i>Unit 4 Module 13: History of Life</i>
Week 16	B-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction (3) competition for limited resources (4) the proliferation of those organisms that are better able to survive and reproduce in the environment.	<i>Unit 4 Module 14: Evolution</i>
Week 17	B-LS4-4. Construct an explanation based on evidence for how natural selection leads to adaptation of populations. B-LS4-5. Evaluate the evidence supporting claims that changes in environmental conditions may result in (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.	<i>Unit 4 Module 14: Evolution</i>
Week 18	Review for SC EOC SC EOC Exam	