

Biology 1 Honors Curriculum Map

2023-2024

Schedule	Standards	McGraw Hill Inspire Biology
Week 1	Establish the 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 & revise an explanation based on evidence for how C, H, and O from sugar molecules may combine with other elements to form amino acids & other large carbon-based molecules necessary for essential life processes. (Intro)	<i>Unit 2 Module 6: Chem. 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 Reprod. & 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: Chem. 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: Chem. 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 Reprod. & 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. B-LS3-1. Ask questions to clarify relationships about the role of DNA & chromosomes in coding the instructions for characteristic traits passed from parents to offspring.	<i>Unit 3 Module 9: Cellular Reprod. & Sexual Reproduction Unit 3 Module 11 Lesson 1</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 & abiotic factors that affect c.c. of ecosystems at different scales. B-LS2-4. Use mathematical representations to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. (Not tested on EOC)	<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. B-LS2-6. Evaluate claims, evidence, and reasoning that the complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions but changing conditions may result in a new ecosystem. (Not tested on EOC)	<i>Unit 1 Module 2: Principles of Ecology Unit 1 Module 4: Population Ecology</i>
Week 14	B-LS2-2. Use mathematical representations to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. (Not tested on EOC) B-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on biodiversity and ecosystem health. B-LS2-8. Evaluate evidence for the role of group behavior on individual and species' chances to survive and reproduce. B-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity. (Not tested on EOC)	<i>Unit 1 Module 5: Biodiversity & Conservation</i>
Week 15	B-LS2-3. Construct and revise an explanation based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. (Not tested on EOC) 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-LS4-3. Apply concepts of statistics and probability to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. (Not tested on EOC) B-LS4-2. Construct an explanation based on evidence that the process of evolution primarily results from four factors....	<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.... B-LS4-6. Create or revise a simulation to test a solution to mitigate adverse impacts of human activity on biodiversity.	<i>Unit 4 Module 14: Evolution</i>
Week 18	<i>Review for SC EOC SC EOC Exam</i>	