

Advanced Biology B

Pacing Guide and Curricular Map

Time	Expectations and Assessments	Description/Skills	Resources	Assignments
14 Days	<p style="text-align: center;">UNIT 7</p> <p>B1.1 Scientific Inquiry (Skill 2) B1.2 Scientific Reflection and Social Implications (Skill 2) B2.4A,d Cell specialization (skills 9-10) B5.1A-B, c-g Theory of Evolution (skills 1-4,6) B5.2x a-c Molecular Evidence (skills 4, 9) B5.3 Natural Selection (skills 1-7)</p> <p style="text-align: center;">ASSESSMENTS</p> <p>Quiz: Chapter 14 Quiz: Chapter 15 (skills 1-3) Unit 7: Part I Test (skills 103) Quiz: Chapter 16 (skills 4-7) Lab: Natural Selection (skills 4) Unit 7: Part II Test (skills 4-10)</p>	<ol style="list-style-type: none"> Summarize major concepts of natural selection Describe how natural selection provides a mechanism for evolution Explain the types of evidence that support the Theory of Evolution Explain Hardy-Weinberg Genetic Equilibrium and the five conditions that must be met Describe species as reproductively distinct groups of organisms that can be classified based on morphological, behavioral, or molecular structure Explain how a new species originates thru the evolutionary process of natural selection Describe the role of geographical isolation in speciation Define taxonomy and describe the classification system and naming system of Carolus Linnaeus Explain that organisms are classified based on structural, embryological, and molecular evidence Analyze the relationships among organisms based on shared physical, biochemical, genetic, and cellular characteristics and functional processes 	Chapter 14-17 text	<p><u>Part I</u> Vocab: Chap 14-15 Chap 14 read ws Chap 15 read ws Section 14.1-3 ws Section 15.1-3 ws Concept maps Review questions</p> <p><u>Part II</u> Vocab: Chap 16-17 Chap 16 read ws Section 16.1-3 ws Section 17.1-3 ws Chap 17 ws Concept maps Lab: Natural Selection</p>

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28 Days	<p style="text-align: center;">UNIT 8</p> <p>B1.1 Scientific Inquiry (Skill 2) B1.2 Scientific Reflection and Social Implications (Skill 2) B2.4B-C Cell specialization (skill 1-2) B2.5B Living Organism Composition (skill 3)</p> <p style="text-align: center;">ASSESSMENTS</p> <p>Part I Test (skills 1-3) -Multicellular, Skeletal and Muscular Systems Part II Test (skills 1-3) -Circulatory, Respiratory and Immune Systems Part III Test (Skills 1-3) -Digestive and Excretory Systems Part IV Test (skills 1-3) -Nervous and Reproductive Systems</p>	<ol style="list-style-type: none"> Describe how various organisms have developed different specializations to accomplish a particular function and yet the result is the same Explain how different organisms accomplish the same result using different structural specializations Explain how major systems and processes work together between organelles, cells, tissues, organs, organ systems, and organisms. Related these to molecular functions. 	Chapter 29-44 text Videos: Circulation Digestion	<p>For each part of unit:</p> <ul style="list-style-type: none"> Section review ws Vocab Concept maps Review <p>-Sketches of different animal systems -Diagram Human systems -Essays comparing and contrasting different systems among different organisms</p>

Time	Expectations and Assessments	Description/Skills	Resources	Assignments
7 Days	<p style="text-align: center;">UNIT 9</p> <p>B1.1 Scientific Inquiry (Skill 2) B1.2 Scientific Reflection and Social Implications (Skill 2) B2.1A Transformation of Matter and Energy in Cells (skill 1) B3.1A Photosynthesis and Respiration (skill 2) B3.2 A-C Ecosystems (skills 3-5) B3.3 A,b Element Recombination (skills 6-7)</p> <p style="text-align: center;">ASSESSMENTS</p> <p>Diagram Cycles (skill 7) Unit 9 Test (skills 1-7)</p>	<ol style="list-style-type: none"> 1. Explain how cells transform energy from one form to another thru processes of photosynthesis and respiration 2. Describe how organisms acquire energy directly or indirectly from sunlight 3. Identify how energy is stored in an ecosystem 4. Describe energy transfer thru an ecosystem, accounting for energy lost to the environment as heat 5. Draw the flow of energy thru an ecosystem. Predict changes in the food web when one or more organisms are removed 6. Use a food web to identify and distinguish producers, consumers, and decomposers and explain the transfer of energy thru trophic levels 7. Describe the environmental processes and cycles and their role in processing matter crucial for sustaining life. 	Chapter 18 test	<p>Reading ws Chapter 18 Section Review ws 18.1-18.4 Diagram -food chain -food webs Diagram Cycles -water -carbon -nitrogen Vocab Concept Maps Review Sheet</p>

Time	Expectations and Assessments	Description/Skills	Resources	Assignments
7 Days	<p style="text-align: center;">UNIT 10</p> <p>B1.1 Scientific Inquiry B1.2 Scientific Reflection and Social Implications B3.4A,C Changes in Ecosystems (skills 1-2) B3.4xd,e Human Impact (skills 3-4) B3.5A-C Populations (skills 5-7) B3.5 x e-g Environmental Factors (skills 8-10)</p> <p style="text-align: center;">ASSESSMENTS</p> <p>Unit 10 Test (skills 1-10)</p>	<ol style="list-style-type: none"> 1. Describe ecosystem stability. Include succession stages 2. Examine the negative impact of human activities 3. Describe the greenhouse effect and list possible causes 4. List the possible causes and consequences of global warming 5. Graph changes in population growth, given a data table 6. Explain the influences that affect population growth 7. Predict the consequences of an invading organism on the survival of other organisms 8. Recognize and describe how the physical or chemical environment may influence the rate, event, and nature of population dynamics within an ecosystem. 9. Graph an example of exponential growth. Then show the population leveling off at the carrying capacity of the environment. 10. Propose how moving an organism to a new environment may influence its ability to survive and predict the possible impact of this type of transfer. 	Chapter 19-22 text	<p>Section Reviews Read worksheets Vocab Lab: Lesson of Kaibab</p>