

Course Name/Number: Biology 500

Grade Level: 9

Curriculum Map

Unit	Essential Questions	Standards & Skills	Common Assessments	Learning Activities	Resources/Technology	Unit Reflection
Name: Chapter 1 The Science of Biology Quarter: 1 Length (Days): 8	<ul style="list-style-type: none">-List several branches of biology.-Identify 3 fields of use biotechnology.-Describe scientific methods.-Identify SI units of length, volume and mass.-Distinguish between the Celsius and Kelvin temperature scales.-Identify 4 kinds of microscopes used in biology.-Recognize the importance of the computer to scientific research.	<p>CRS: Interpretation of Data 16-19 and 20-23 SI 16-27 Evaluation of Models, Inferences, and Experimental Results 20-23</p> <p>CCSS: RST 9-10.1 RST 9-10.2 RST 9-10.3 RST 9-10.7</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<ul style="list-style-type: none">-Teacher lecture-POD-Review Game	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	

<p>Name: Chapter 2 The Nature of Living Things Quarter: 1 Length (Days): 10</p>	<p>-Explain the relationship between organisms and cells. -Name 6 characteristics of all organisms. -Define life processes. -Identify 4 life processes. -Name 5 needs of most organisms. -Explain the importance of quality living space for plants and animals.</p>	<p>CRS: Interpretation of Data 16-19 and 20-23 SI 16-27 Evaluation of Models, Inferences, and Experimental Results 20-23</p> <p>CCSS: RST 9-10.1 RST 9-10.2 RST 9-10.3 RST 9-10.7</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<p>-Teacher lecture -POD -Review Game</p>	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
<p>Name: Chapter 3 The Chemistry of Life Quarter: 1/2 Length (Days): 12</p>	<p>-Distinguish among the states of matter. -Define atom, element and molecule. -Compare mixtures and compounds. -Recognize the relationship between chemistry and biology. -Compare inorganic and organic compounds. -Name 6 kinds of compounds needed by living things.</p>	<p>CRS: Interpretation of Data 16-19 and 20-23</p> <p>CCSS: RST 9-10.5 RST 9-10.3 RST 9-10.1</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<p>-Teacher lecture -POD -Review Game -Acids vs. Base Lab</p>	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	

<p>Name: Chapter 4 Cells Quarter: 2 Length (Days): 10</p>	<ul style="list-style-type: none"> -State the cell theory. -Explain how the electron microscope has aided biologists in the study of cells. -Identify the main parts of the cell. -Name 2 cell structures found in plant cells but not in animal cells. -List the levels of organization in living things. -Explain the importance of respiration and photosynthesis. -Explain the difference between mitosis and meiosis. 	<p>CRS: Interpretation of Data 16-19 20-23 SI 20-27</p> <p>CCSS: RST 9-10.5 RST 9-10.3 RST 9-10.7</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: -Meiosis and Mitosis drawing -Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Meiosis & mitosis drawing. -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets..</p>	
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<p>Name: Chapter 5 Classification Quarter: 2 Length (Days): 11</p>	<ul style="list-style-type: none"> -Explain the need for classifying living things. -Explain how the theory of evolution affected classification. -List 4 things scientists study in order to classify living things. -Explain what is meant by the term “binomial nomenclature”. -List the 7 levels of modern classification. -Name the 5 kingdoms of living things. 	<p>CRS: Interpretation of Data 16-19 20-23</p> <p>CCSS: RST 9-10.3 RST 9-10.4</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
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<p>Name: Chapter 6 Viruses and Monerans Quarter: 3 Length (Days): 11</p>	<ul style="list-style-type: none"> -Identify and describe the characteristics of viruses. -Describe ways in which viruses are spread. -Identify and describe the characteristics of monerans. -Classify bacteria according to shape. -Name and describe a group of bacteria that use light for energy. -Relate examples of how bacteria are harmful. -Relate examples of how bacteria are helpful. 	<p>CRS: Interpretation of Data 16-19 20-23</p> <p>Scientific Investigation 20-23 24-27</p> <p>CCSS: RST 9-10.3 RST 9-10.7</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<p>-Teacher lecture -POD -Review Game</p>	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
<p>Name: Chapter 7 Protists Quarter: 3 Length (Days): 7</p>	<ul style="list-style-type: none"> -Identify the characteristics of protists. -Name 3 groups of organisms in the Protist kingdom. -Name 4 phyla of protozoans. -Describe the method of locomotion for each phylum of protozoa. -Explain how algae are important to humans and other organisms. -Distinguish between a 	<p>CRS: Interpretation of Data 16-19</p> <p>CCSS: RST 9-10.3 RST 9-10.7</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<p>-Teacher lecture -POD -Review Game</p>	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	

	<p>plasmodial slime mold and a cellular slime mold.</p>					
<p>Name: Chapter 8 Fungi Quarter: 3 Length (Days): 12</p>	<p>-List the characteristics of fungi. -Explain how fungi are classified. -Relate the importance of water molds and terrestrial molds to humans and other organisms. -Name 3 examples of sac fungi and relate their importance to humans and other organisms. -Name 3 examples of club fungi and relate their importance to humans and other organisms. -Explain how imperfect fungi are classified. -Relate the importance of imperfect fungi to humans.</p>	<p>CRS: Interpretation of Data 16-19 and 20-23</p> <p>Scientific Investigation 16-19</p> <p>CCSS: RST 9-10.3 RST 9-10.5</p>	<p>Formative: Chapter notes, POD, section questions, bread mold lab chart & worksheet, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<p>-Teacher lecture -POD -Bread mold lab -Review Game</p>	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	

<p>Name: Chapter 9 Spore Plants Quarter: 3 Length (Days): 7</p>	<ul style="list-style-type: none"> -Identify 4 characteristics of all plants. -Name the 2 divisions of the plant kingdom. -Identify 3 class of bryophytes. -Describe alternation of generations. -Describe the appearance of horsetails and club mosses. -Name the structures of a fern. -Describe the gametophyte and sporophyte generations of a fern. 	<p>CRS: Interpretation of Data 16-19</p> <p>Scientific Investigation 16-19</p> <p>CCSS: RST 9-10.4 RST 9-10.5</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
<p>Name: Chapter 10 Seed Plants Quarter: 3 Length (Days): 9</p>	<ul style="list-style-type: none"> -Distinguish between angiosperms and gymnosperms. -Name 3 kinds of gymnosperms. -Discuss the economic importance of conifers. -Explain why flowering plants are a successful group. -Identify monocots and dicots as two kinds of angiosperms. -Name 4 kinds of plant tissues. 	<p>CRS: Interpretation of Data 16-19</p> <p>CCSS: RST 9-10.4 RST 9-10.5</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	

	-Name and describe the functions of the 2 organ systems of plants.					
Name: Chapter 15 Arthropods Quarter: 4 Length (Days): 5	-List the major characteristics of arthropods. -Describe the characteristics of arachnids. -Describe the characteristics of crustaceans. -Compare centipedes and millipedes. -Describe the characteristics of insects. -Describe ways insects communicate.	CRS: Interpretation of Data 16-19 Scientific Investigation 16-19 CCSS: RST 9-10.7 RST 9-10.9 RST 9-10.10 RST 9-10.2 RST 9-10.4 RST 9-10.5	Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review. Summative: -Create an arthropod. -Chapter test	-Teacher lecture -POD -Create your own arthropod. -Review Game	Google slides, YouTube, textbook & textbook worksheets.	
Name: Chapter 16 Fishes Quarter: 4 Length (Days): 23	-List the characteristics of vertebrates. -Define ectothermic. -Name and describe 3 classes of fishes. -Identify 2 groups of jawless fishes. -Identify 3 groups of cartilaginous fishes. -Identify 3 groups of bony fishes. -Describe the anatomy of a bony fish.	CRS: Interpretation of Data 16-19 20–23 Scientific Investigation 16-19 20-23 CCSS: RST 9-10.3 RST 9-10.5 RST 9-10.9	Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review. Summative: -Fish labeling poster (group project) -Chapter test	-Teacher lecture -POD -Teacher dissected fish. -Review Game	Google slides, YouTube, textbook & textbook worksheets.	

<p>Name: Chapter 17 Amphibians & Reptiles Quarter: 4 Length (Days): 10</p>	<ul style="list-style-type: none"> -Identify the major characteristics of amphibians. -List examples from each of the 3 orders of amphibians. -Describe the external and internal anatomy of a frog. -Describe metamorphosis in frogs. -List structural characteristics of reptiles that are adaptations to life on land. -Describe the structure and function of the amniote egg. -List examples from each of the 4 orders of modern reptiles. 	<p>CRS: Interpretation of Data 16-19 20–23</p> <p>Scientific Investigation 16-19 20-23</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
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<p>Name: Chapter 18 Birds Quarter: 4 Length (Days): 8</p>	<ul style="list-style-type: none"> -List the major characteristics of birds. -Explain how beaks and feet are adaptations. -Describe the function of feathers. -Describe the general anatomy of a bird. -Explain how birds are adapted for flight. -Identify 3 behaviors of birds that are related to reproduction. -Define migration. 	<p>CRS: Interpretation of Data 16-19 20–23</p> <p>Scientific Investigation 16-19 20-23</p>	<p>Formative: Chapter notes, POD, section questions, chapter vocabulary & chapter review.</p> <p>Summative: -Animal project (reptiles, amphibians, birds, fish) Chapter test</p>	<ul style="list-style-type: none"> -Teacher lecture -POD -Review Game 	<p>Google slides, YouTube, textbook & textbook worksheets.</p>	
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