



Saddlebrook Preparatory School

Curriculum Map- Scope and Sequence:
High School Zoology

Purpose of Planning	Unit One Part 1: Intro Living Animals Q1, W1-4	Unit Two Part 2: Evolution of Animal Life Q1, W6-9	Unit Three Part 3: Diversity of Animal Life Q2-Q3, W 10-26	Unit Four Part 4: Activity of Life Q4, W 27-33	Unit Five Part 5: Animals and Their Environments Q4, W34-36
Unit Topic and Overview:	The study of animals involves a review of biological principles, themes of all life, chemistry of all life, and homeostasis of the cellular processes.	The study of evolution of animals involves a review of genetics, evolutionary principles, population dynamics, reproduction strategies, and complexity of animal development.	The study of the diversity of animals involves reviewing the characteristics (structures and functions) and classification of the animal kingdom.	The study of the activity of life involves a review of major body systems (structures and functions), body systems interacting, and organisms maintaining homeostasis.	The study of animals and their environments involves connecting the abiotic-biotic parts of a biome with the diversity/distribution of animals.
Prerequisite Student Knowledge *What should students have previously mastered prior to this unit?	Previous completion of biology course focused on biological themes/principles, chemistry of life, cell organelles, and cell processes.	Previous completion of biology course focused on generics, evolution, reproduction, and development.	Previous completion of biology course focused on characteristics and classifications of invertebrate and vertebrate animals.	Previous completion of biology course focused on homeostasis of body systems and animal behaviors.	Previous completion of biology/ecology course focused on the biosphere and abiotic-biotic interactions.
Essential Knowledge & Student Expectations *What are the anticipated learning outcomes for students?	Students will demonstrate knowledge of characteristics of life, themes in life sciences, and application of homeostasis from cellular level to ecological level for animal species. Essential Questions: 1. Highlight the importance of biological and physical sciences as themes for studying zoology. 2. Explain how the structures and functions of cells allow for homeostasis of cellular processes. 3. Compare and contrast the various cellular processes within the animal cell.	Students will demonstrate knowledge of genetics, evolution of life, animal reproduction, and development and apply the characteristics of life for all animals. Essential Questions: 1. Explain the role(s) genetics plays in evolution and reproduction of animals. 2. Apply the characteristics of life to the study of animals. 3. Apply the theory of evolution to the reproduction and adaptations of animals.	Students will demonstrate knowledge of taxonomy/ classification system of animals using characteristics unique to that group of organisms. Essential Questions: 1. Classify various groups of animals using psychological characteristics, adaptations, and processes to maintain homeostasis of the organism. 2. Compare and contrast the major group differences of psychological characteristics, adaptations, and processes to maintain homeostasis of the organism within the animal kingdom.	Students will demonstrate knowledge of understanding the major body stems (structures and functions) to how the organism can maintain homeostasis. Essential Questions: 1. Explain how the themes of Biology are vital to the successful survival of any animal. 2. Compare and contrast the functions of the major body systems and their role in homeostasis.	Students will demonstrate knowledge of how animals' structures and behaviors relate to the biome they reside in. Essential Questions: 1. Prioritize the adaptations animals have to help them survive in their ecosystems. 2. Explain the different types of behaviors that animals' exhibit; and relate how humans have affected animal behaviors (positive/negative.)



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<p>Anchor Text and Supplemental Texts *Illustrate texts used, and how students' knowledge builds across units.</p>	<p>Anchor Texts: McGraw-Hill, <i>Integrated Principles of Zoology</i>. (2016) Ch 1 Life: Biological Principles and the Science of Zoology Ch 2 The Origin and Chemistry of Life Ch 3 Cells as Units of Life Ch 4 Cellular Metabolism</p> <p>Literary Texts:</p> <p>Informational Texts:</p>	<p>Anchor Texts: McGraw-Hill, <i>Integrated Principles of Zoology</i>. (2016) Ch 5 Genetics: A Review Ch 6 Organic Evolution Ch 7 The Reproductive Process Ch 8 Principles of Development</p> <p>Literary Texts:</p> <p>Informational Texts:</p>	<p>Anchor Texts: McGraw-Hill, <i>Integrated Principles of Zoology</i>. (2016) Ch 9 Architectural Pattern of an Animal Ch 10 Classification and Phylogeny of Animals Ch 11 Protozoan Groups Ch 12 Mesozoa and Parazoa Ch 13 Radiate Animals Ch 14 Acoelomate Bilateral Animals Ch 15 Pseudocoelomate Animals Ch 16 Molluscs Ch 17 Segmented Worms Ch 18 Arthropods Ch 19 Aquatic Mandibulates Ch 20 Terrestrial Mandibulates Ch 21 Smaller Protostome Phyla Ch 22 Echinoderms and Hemichordates Ch 23 Chordates Ch 24 Fishes Ch 25 Early Tetrapods and Modern Amphibians Ch 26 Amniote Origins and Reptilian Groups Ch 27 Birds Ch 28 Mammals</p> <p>Literary Texts:</p> <p>Informational Texts:</p>	<p>Anchor Texts: McGraw-Hill, <i>Integrated Principles of Zoology</i>. (2016) Ch 29 Support, Protection, and Movement Ch 30 Homeostasis: Osmotic Regulation, Excretion, and Temperature Regulation Ch 31 Internal Fluids and Respiration Ch 32 Digestion and Nutrition Ch 33 Nervous Coordination: Endocrine System Ch 34 Chemical Coordination: Endocrine Systems Ch 35 Immunity Ch 36 Animal Behavior</p> <p>Literary Texts:</p> <p>Informational Texts:</p>	<p>Anchor Texts: McGraw-Hill, <i>Integrated Principles of Zoology</i>. (2016) Ch 37 The Biosphere and Animal Distribution Ch 38 Animal Ecology</p> <p>Literary Texts:</p> <p>Informational Texts:</p>
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<p>Multi-Media Links: *Videos, presentations, any and all supplemental online material.</p>	<p>-Discovery Education Video: Just the Facts: The Scientific Revolution: Part 01 -Discovery Education Video: Just the Facts: The Scientific Revolution: Part 02 -Discovery Education Video: Science Investigations: Life Science: Investigating Cells and Genetics</p>	<p>-Discovery Education Video: Natural Selection of Plants and Animals -Discovery Education Video: Genetics and Reproduction</p>	<p>-Discovery Education Video: Life Series (paired with dissections of animal groups): Creatures of the Deep, fish, Insects, Reptiles, primates, Birds</p>	<p>-Discovery Education Video: Just the Facts: The Human Body: Major Systems and Organs -Discovery Education Video: The Human Body: The Ultimate Machine</p>	<p>-Discovery Education Video: Animal Instincts -Discovery Education Video: Biology Concepts for Students: Ecology -Discovery Education Video: Biomes: Our Earths Major Life Zones</p>
<p>Instructional Practices: * Various Instructional Modalities, including Technology used</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes on laptops -Focused reading of anchor text and vocabulary -Labs.</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes on laptops -Focused reading of anchor text and vocabulary -Labs.</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes on laptops -Focused reading of anchor text and vocabulary -Labs. -Dissections</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes on laptops -Focused reading of anchor text and vocabulary -Labs.</p>	<p>-Bell work and discussion of Essential Questions -Lecture with PowerPoint, students take notes on laptops -Focused reading of anchor text and vocabulary -Labs.</p>
<p>Assessments: *Types and Measurements of Mastery</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>	<p>Informal Assessments: Bell work/Exit slips daily, class lectures/discussions, checking focused reading answers/HW. Formal Assessments: Pre-quiz, chapter quiz, unit test, and labs. Objective: 80% of student athletes will be able to demonstrate mastery (mastery is defined as 80%+) on formal assessments at the completion of the unit.</p>



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<p>Interdisciplinary Lessons & Projects: *State additional content areas and title all lesson(s) and project(s)</p>	<p>-Tree of Knowledge project included: Logic, Mathematics, Philosophy, science, History/Humanities, and Preservation of Knowledge</p>	<p>-Analysis of Halloween Creatures Project (Science, LA/Writing, Math, Humanities, Anthropology)</p>	<p>-Life Cycle of an Organism Project (Science, LA/Writing, Math)</p>	<p>-Create a Creature Project (science, LA/Writing, Art, Design)</p>	<p>-Designing A Natural Preserve Project (Science, LA/Writing, Math, Politics, Economics)</p>
<p>Honors Course Differentiation(s):</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>	<p>N/A</p>
<p>Integrated Common Core or NGSSS Standards (List): *See Below for Links</p>	<p>CCSS.ELA-Literacy.RST.11-12.1 CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.3 CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.5 CCSS.ELA-Literacy.RST.11-12.6 CCSS.ELA-Literacy.RST.11-12.7 CCSS.ELA-Literacy.RST.11-12.8 CCSS.ELA-Literacy.RST.11-12.9 CCSS.ELA-Literacy.RST.11-12.10 SC.912.L.14.1, SC.912.L.14.2, SC.913.L.14.3, SC.912.L.14.4, SC.913.L.14.5 , SC.912.L.18.7, SC.912.L.18.8, SC.912.L.18.9,</p>	<p>CCSS.ELA-Literacy.RST.11-12.1 CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.3 CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.5 CCSS.ELA-Literacy.RST.11-12.6 CCSS.ELA-Literacy.RST.11-12.7 CCSS.ELA-Literacy.RST.11-12.8 CCSS.ELA-Literacy.RST.11-12.9 CCSS.ELA-Literacy.RST.11-12.10 SC.912.L.16.1, SC.912.L.16.2, SC.912.L.16.3, SC.912.L.16.4, SC.912.L.16.5, SC.912.L.16.6, SC.912.L.16.10, SC.912.L.16.11, SC.912.L.16.12, SC.912.L.16.14, SC.912.L.16.15, SC.912.L.16.17, SC.912.L.15.12, SC.912.L.15.13, SC.912.L.15.14, SC.912.L.15.15, SC.912.L.15.3, SC.912.L.15.8, SC.912.L.15.9</p>	<p>CCSS.ELA-Literacy.RST.11-12.1 CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.3 CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.5 CCSS.ELA-Literacy.RST.11-12.6 CCSS.ELA-Literacy.RST.11-12.7 CCSS.ELA-Literacy.RST.11-12.8 CCSS.ELA-Literacy.RST.11-12.9 CCSS.ELA-Literacy.RST.11-12.10 SC.912.L.15.3, SC.912.L.15.4, SC.912.L.15.5, SC.912.L.15.6, SC.912.L.15.6, SC.912.L.15.7, SC.912.L.15.8</p>	<p>CCSS.ELA-Literacy.RST.11-12.1 CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.3 CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.5 CCSS.ELA-Literacy.RST.11-12.6 CCSS.ELA-Literacy.RST.11-12.7 CCSS.ELA-Literacy.RST.11-12.8 CCSS.ELA-Literacy.RST.11-12.9 CCSS.ELA-Literacy.RST.11-12.10 SC.912.L.16.13, SC.912.L.14.12- SC.912.L.14.52,</p>	<p>CCSS.ELA-Literacy.RST.11-12.1 CCSS.ELA-Literacy.RST.11-12.2 CCSS.ELA-Literacy.RST.11-12.3 CCSS.ELA-Literacy.RST.11-12.4 CCSS.ELA-Literacy.RST.11-12.5 CCSS.ELA-Literacy.RST.11-12.6 CCSS.ELA-Literacy.RST.11-12.7 CCSS.ELA-Literacy.RST.11-12.8 CCSS.ELA-Literacy.RST.11-12.9 CCSS.ELA-Literacy.RST.11-12.10 SC.912.L.17.1- SC.912.L.17.20</p>



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Integrated CCSS Writing Standards (List): *See Below for Links	CCSS.ELA-Literacy.W.11-12.1 CCSS.ELA-Literacy.W.11-12.2 CCSS.ELA-Literacy.W.11-12.4 CCSS.ELA-Literacy.W.11-12.5 CCSS.ELA-Literacy.W.11-12.7 CCSS.ELA-Literacy.W.11-12.9	CCSS.ELA-Literacy.W.11-12.1 CCSS.ELA-Literacy.W.11-12.2 CCSS.ELA-Literacy.W.11-12.4 CCSS.ELA-Literacy.W.11-12.5 CCSS.ELA-Literacy.W.11-12.7 CCSS.ELA-Literacy.W.11-12.9	CCSS.ELA-Literacy.W.11-12.1 CCSS.ELA-Literacy.W.11-12.2 CCSS.ELA-Literacy.W.11-12.4 CCSS.ELA-Literacy.W.11-12.5 CCSS.ELA-Literacy.W.11-12.7 CCSS.ELA-Literacy.W.11-12.9	CCSS.ELA-Literacy.W.11-12.1 CCSS.ELA-Literacy.W.11-12.2 CCSS.ELA-Literacy.W.11-12.4 CCSS.ELA-Literacy.W.11-12.5 CCSS.ELA-Literacy.W.11-12.7 CCSS.ELA-Literacy.W.11-12.9	CCSS.ELA-Literacy.W.11-12.1 CCSS.ELA-Literacy.W.11-12.2 CCSS.ELA-Literacy.W.11-12.4 CCSS.ELA-Literacy.W.11-12.5 CCSS.ELA-Literacy.W.11-12.7 CCSS.ELA-Literacy.W.11-12.9
Links to CCSS/NGSSS Curriculum Standards:	The following links will be used to incorporate the CCSS and other applicable standards: <ul style="list-style-type: none"> • The Common Core State Standard expectations in grade 9-12, • The K-12 English LA and Content Area Writing Standards • The K-12 Reading Standards • The K-12 Mathematics Standards • The K-12 NGSSS Science & Social Studies Standards 				

