



BIOLOGY
Year at a Glance (YAG)
2022-2023



First Semester		Second Semester	
1 st Nine Weeks – 40 days		3 rd Nine Weeks – 45 days	
<p>TEKS B.1A, B.1B, B.2B, B.2C, B.2D, B.2E, B.2F, B.2G, B.2H, B.3A, B.3E, B.3F B.4A, B.4B, B.6A B.7A, B.7B, B.7C, B.7D, B.7E, B.7F, B.7G B.9A, B.9C, B.9D B.10C B.11A B.12B</p>	<p>Unit 1: Nature of Science Students will be able to describe and apply the scientific process in the lab and in investigations.</p> <p>Unit 2: Evolution Students will be able to describe and prove the evolutionary theory and how it unifies and diversifies life.</p> <p>Unit 3: Biochemistry Students will be able to explain the role of different molecules in metabolic processes that will aid in maintaining homeostasis.</p> <p>Unit 4: Cellular Biology Students will understand the structures and purposes of basic components of prokaryotic and eukaryotic cells and how these cellular components are used in transport of molecules into and out of a cell.</p>	<p>TEKS B.1A, B.1B B.2E, B.2F, B.2G, B.2H B.3D, B.3E, B.3F B.4A, B.4B B.5B B.6B, B.6C, B.6D, B.6E, B.6G B.7E B.8A, B.8B, B.8C B.10A, B.10.B, B.10C B.11A, B.11B, B.11C</p>	<p>Unit 8: Molecular Biology- Protein Synthesis Students will explain the purpose and process of transcription and translation using models of DNA and RNA</p> <p>Unit 9: Diversity of Life Students will be able to compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals</p> <p>Unit 10: Vertebrae Evolution Students will understand classification based on the shared characteristics of organisms and how these organisms evolved and adapted to their environment</p>
2 nd Nine Weeks – 43 days		4 th Nine Weeks – 45 days	
<p>TEKS B.1A, B.1B B.2E, B.2F, B.2G, B.2H B.3E, B.3F B.4A, B.4B B.5A, B.5B, B.5C, B.5D B.6A, B.6B B.9A, B.9B, B.9C, B.9D</p>	<p>Unit 5: Cellular Energy – Photosynthesis and Respiration Students will be able to compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter</p> <p>Unit 6: Cellular Reproduction and DNA Students will be able to explain how the importance of the cell cycle in growth of organisms.</p> <p>Unit 7: Genetics Students will be able to explain the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics</p>	<p>TEKS B.1A, B.1B B.2E, B.2F, B.2G, B.2H, B.3E B.5B B.6G B.8C B.9A, B.9C B.10A, B.10C, B.11A, B.11B, B.11C, B.11D, B.12A, B.12B, B.12C, B.12D, B.12E, B.12F</p>	<p>Unit 11: Ecology Students will be able to explain the interdependence and interactions occur within an environmental system.</p> <p>Unit 12: Anatomy and Physiology Students describe the interactions that occur among systems that perform the functions of regulation, nutrient absorption, reproduction, and defense from injury or illness in animals</p>



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Resources

1st Nine Weeks	2nd Nine Weeks	3rd Nine Weeks	4th Nine Weeks
Unit 1: Nature of Science: Chapter 1 Unit 2: Evolution: Chapter 16 Unit 3: Biochemistry: Chapter 2 Unit 4: Cellular Biology: Chapter 7	Unit 5: Cellular Energy: Chapters 8 – 9 Unit 6: Cellular Reproduction: Chapters 12, 10, 11.4 Unit 7: Genetics : Chapters 11, 14, 17 <i>Fall Semester Final Exam</i>	Unit 8: Molecular Biology: Chapters 13, 15 Unit 9: Diversity of Life: Chapters 18 – 24 Unit 10: Vertebrate Evolution: Chapters 25 – 28	Unit 11: Ecology: Chapters 3 – 6 <i>Biology EOC/STAAR Exam</i> Unit 12: Anatomy and Physiology: Chapter 30 <i>Spring Semester Final Exam</i>