



**BIOLOGY**  
**Year at a Glance (YAG)**  
**2021-2022**



First Semester		Second Semester	
1 <sup>st</sup> Nine Weeks – 40 days		3 <sup>rd</sup> Nine Weeks – 45 days	
<p><b>TEKS</b>            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><b>Unit 1: Nature of Science</b>            Students will be able to describe and apply the scientific process in the lab and in investigations.</p> <p><b>Unit 2: Evolution</b>            Students will be able to describe and prove the evolutionary theory and how it unifies and diversifies life.</p> <p><b>Unit 3: Biochemistry</b>            Students will be able to explain the role of different molecules in metabolic processes that will aid in maintaining homeostasis.</p> <p><b>Unit 4: Cellular Biology</b>            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><b>TEKS</b>            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><b>Unit 8: Molecular Biology- Protein Synthesis</b>            Students will explain the purpose and process of transcription and translation using models of DNA and RNA</p> <p><b>Unit 9: Diversity of Life</b>            Students will be able to compare characteristics of taxonomic groups, including archaea, bacteria, protists, fungi, plants, and animals</p> <p><b>Unit 10: Vertebrae Evolution</b>            Students will understand classification based on the shared characteristics of organisms and how these organisms evolved and adapted to their environment</p>
2 <sup>nd</sup> Nine Weeks – 43 days		4 <sup>th</sup> Nine Weeks – 45 days	
<p><b>TEKS</b>            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><b>Unit 5: Cellular Energy – Photosynthesis and Respiration</b>            Students will be able to compare the reactants and products of photosynthesis and cellular respiration in terms of energy and matter</p> <p><b>Unit 6: Cellular Reproduction and DNA</b>            Students will be able to explain how the importance of the cell cycle in growth of organisms.</p> <p><b>Unit 7: Genetics</b>            Students will be able to explain the mechanisms of genetics, including the role of nucleic acids and the principles of Mendelian Genetics</p>	<p><b>TEKS</b>            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><b>Unit 11: Ecology</b>            Students will be able to explain the interdependence and interactions occur within an environmental system.</p> <p><b>Unit 12: Anatomy and Physiology</b>            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>

Resources

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