

		Year at a Glance 2019-2020			Creation Date: May 29, 2019	
		8 <sup>th</sup> Grade Science			Revision Date: August 5, 2019	
Unit Name	Unit 8-1 Atomic Structure 8/21-9/18 20 days	Unit 8-2 Periodic Table & Chemical Formulas 9/19-10/4 12 days	Unit 8-3 Chemical Reactions 10/7-10/23 11 days	Unit 8-4 Motion 10/24-11/8 12 days	Unit 8-5 Newton's Laws 11/11-12/6 15 days	Unit 8-6 Weather 12/9-12/20 10 days
TEKS	New 8.5A, 8.5B	Spiraled 8.5A, 8.5B, 6.6A, 6.6B New 8.5C, 8.5D	Spiraled 7.6A, 8.5D New 8.5E	Spiraled 6.8C, 6.8D New 8.6B, 8.2D	Spiraled 8.6B, 8.2D New 8.6A, 8.6C	New 8.10A, 8.10B, 8.10C
Big Ideas	1. Atoms are made of three different kinds of sub-atomic particles: protons, neutrons, and electrons. 2. Protons are positively charged, located in the nucleus, and determine an atom's identity. 3. Valence electrons (electrons in the outer energy level) determine an atom's chemical properties and reactivity.	1. Elements are arranged by increasing atomic number. 2. Elements in the same period have the same number of energy levels. 3. Elements in the same group/family have the same number of valence electrons. 4. Chemical formulas identify substances and specify the number of atoms for each element represented. 5. Subscripts identify the number of atoms of each element in a compound.	1. Chemical reactions indicate the formation of new substances. 2. Chemical formulas specify the substances and quantity of atoms involved in a chemical reaction. 3. Chemical reactions adhere to the Law of Conservation of Mass.	1. Speed, velocity & acceleration quantify and describe an object's motion.	1. Newton's Laws can help predict the motion of objects. 2. Unbalanced forces cause acceleration of objects.	1. The Sun provides the energy that drives convection within the atmosphere and oceans and produces winds and ocean currents. 2. Global patterns of atmospheric movement influence local weather. 3. Oceans play a major role in the formation of weather systems.
Unit Name	Unit 8-7 Plate Tectonics & Topography 1/7-2/7 23 days	Unit 8-8 Earth, Moon & Sun 2/10-2/28 14 days	Unit 8-9 Components of the Universe 3/2-4/1 17 days	Unit 8-10 Organisms & Environments 4/2-4/24 16 days	Unit 8-11 Course Review & STAAR 4/27-5/8 10 days	Unit 8-12 Worth the Wait 5/11-5/28 13 days
TEKS	Spiraled 8.6C New 8.9A, 8.9B, 8.9C	Spiraled 8.6C, 6.11B New 8.7A, 8.7B, 8.7C	New 8.8A, 8.8B, 8.8C, 8.8D,	Spiraled 7.10B, 7.10C New 8.11A, 8.11B, 8.11C,	Spiraled Readiness and Supporting Standards	Health 1A-D, 2A-D, 3A-D, 4A-D, 5C-L, 6A, 7A-B, 8A, 9A-B, 10A-E, 11A-F, 12A-G, 13A-E
Big Ideas	1. Topographic maps and satellite views show land features and may be used to predict how land features can be reshaped by weathering. 2. New landforms are created at tectonic plate boundaries. 3. Plate tectonics and the effects can be explained by Newton's Law of Motion. 4. Historical evidence supports the theory of plate tectonics.	1. Earth rotates once every 24 hours and revolves around the Sun once every 365 ¼ days. 2. The seasons are caused by the tilt of the Earth in relation to the Sun. 3. The moon moves through eight phases in a 29.5 day cycle. 4. The relative position of Earth, Sun, and the Moon affects the ocean tides.	1. Components of the universe can be described and classified using models such as the Hertzsprung - Russell diagram. 2. The Sun is a medium sized star in the Milky Way Galaxy that is closest to Earth than any other star. 3. Electromagnetic spectrum waves such as visible light and radio waves are used to gain information about the universe.	1. Organisms and populations compete for biotic and abiotic factors in an ecosystem. 2. Short and long-term environmental changes can affect organisms and traits in subsequent populations.	1. Review of the big ideas from the year.	1. Identify the main functions of the systems of the human organism including the reproductive system. 2. Learn about safe behaviors and health and wellness components.