

Science Curriculum 2019-2020

Grade	Unit taught	Grade level Concepts:
8	Sun-Earth-Moon System (Astronomy)	<ul style="list-style-type: none"> • The apparent motion of the Sun across the sky, the Moon's phases and eclipses result from the motions of Earth around the Sun, Moon, and Earth. • Gravitational interaction between Sun, Moon, and Earth produces tides on Earth. • The Sun is the major source of energy for Earth. Sunspots occur in a predictable cycle and influence space weather.
8	Development & Reproduction of Organisms	<ul style="list-style-type: none"> • Different kinds of living things obtain food and release energy in different ways. • Organisms can be classified based on their structure and function.
8	Motors & Simple Machines	<ul style="list-style-type: none"> • The force a motor exerts depends on how it is connected to a source of power. • Work is the product of force and distance. • Machines reduce the effort needed to do a given amount of work by increasing the distance over which the work is done.
7	Forces & Machines	<ul style="list-style-type: none"> • We encounter gravity, elastic forces, friction, and magnetic forces frequently. • These forces can act on objects and change their speed and direction. • Kinetic energy and potential energy can be transformed from one form to another.
7	Plate Tectonics	<ul style="list-style-type: none"> • Earthquake waves travel in all directions from an epicenter. • Earthquake waves reveal the layered nature of the Earth's interior. • Plate movements reveal the movement of the continents over time. • A volcano's type depends on the nature of that volcano's lava. • Volcanic ash affects the Earth's environment and weather.
7	Respiration & Circulation	<ul style="list-style-type: none"> • During gas exchange in the lungs, oxygen is absorbed by the bloodstream and carbon dioxide is released. • In cellular respiration, oxygen and nutrient combine to release the energy needed for life activities. Carbon dioxide is a waste product of cellular respiration.
7	Human Body Systems	<ul style="list-style-type: none"> • Group research and presentations to the class on the various body systems.