|  |  |  |
| --- | --- | --- |
| **Grade** | **Unit taught** | **Grade level Concepts:** |
| 8 | Sun-Earth-Moon System (Astronomy) | * 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 | * 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 | * 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 | * 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 on form to another. |
| 7 | Plate Tectonics | * Earthquake waves travel in all directions from an epicenter. * Earthquake waves revel 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 | * 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 | * Group research and presentations to the class on the various body systems. |

**Science Curriculum 2019-2020**