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| **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.
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| 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.
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| 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.
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| 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.
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| 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.
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| 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.
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| 7 | Human Body Systems | * Group research and presentations to the class on the various body systems.
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**Science Curriculum 2019-2020**