<table>
<thead>
<tr>
<th>Content Standards 8th Grade</th>
<th>Dates Taught</th>
<th>% of Students scoring over 70%</th>
<th>Dates Re-taught (Optional)</th>
<th>Formative and Summative Assessments/ (Any Additional Comments Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content Standard 8:</strong> Identify Newton’s three laws of motion.</td>
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<tr>
<td>Defining terminology such as action and reaction forces, inertia, acceleration, momentum, and friction.</td>
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<tr>
<td>Interpreting distance-time graphs.</td>
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<tr>
<td><strong>Content Standard 9:</strong> Describe how mechanical advantages of simple machines reduce the amount of force needed for work.</td>
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<tr>
<td>Describing the effect of force on pressure in fluids</td>
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<tr>
<td>Example: increasing force on fluid leading to increase of pressure within a hydraulic cylinder</td>
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<tr>
<td><strong>Content Standard 12:</strong> Classify waves as mechanical or electromagnetic.</td>
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<tr>
<td>Examples: mechanical—earthquake waves</td>
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<tr>
<td>Electromagnetic—ultraviolet waves, visible light waves</td>
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<tr>
<td>Describing how earthquake waves, sound waves, water waves, and electromagnetic waves can be destructive or beneficial due to the transfer of energy.</td>
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<tr>
<td>Describing longitudinal and transverse waves</td>
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<tr>
<td>Describing how waves travel through different media</td>
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<tr>
<td>Relating wavelength, frequency, and amplitude to energy</td>
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<tr>
<td>Describing the electromagnetic spectrum in terms of frequencies</td>
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<tr>
<td>Example: electromagnetic spectrum in increasing frequencies—microwaves, infrared light, visible light, ultraviolet light, X-rays</td>
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</tbody>
</table>
## Content Standards

### 7th Grade

<table>
<thead>
<tr>
<th>Content Standard 5: Identify major differences between plants and animals, including internal structures, external structures, methods of locomotion, methods of reproduction, and stages of development.</th>
<th>Dates Taught</th>
<th>% of Students scoring over 70%</th>
<th>Dates Re-taught (Optional)</th>
<th>Formative and Summative Assessments/ (Any Additional Comments Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describing the processes of photosynthesis and cellular respiration.</td>
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<tr>
<td>Identify differences in internal cellular structures like chloroplasts and cell walls, external structures, methods of locomotion, sexual and asexual methods of reproduction, and stages of development.</td>
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</tbody>
</table>

### Content Standard 6:
**Describe evidence of species variation due to climate, changing landforms, interspecies interaction, and genetic mutation.**

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<thead>
<tr>
<th></th>
<th>Dates Taught</th>
<th>% of Students scoring over 70%</th>
<th>Dates Re-taught (Optional)</th>
<th>Formative and Summative Assessments/ (Any Additional Comments Optional)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examples: fossils records over geologic time, rapid bacterial mutations due to environmental pressures.</td>
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<tr>
<td>Describe evidence of species variation due to climate in the cases of the snowshoe rabbit and arctic fox.</td>
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<tr>
<td>Describe evidence of species variation due to geographic isolations such as a population becoming separated by a mountain range, an island breaking off from a mainland as in the case of Australia, or when a river separates a population as in the case of the Grand Canyon squirrel populations.</td>
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<tr>
<td>Describe evidence of species variation due to interspecies interaction by recognizing the roles of parasitism, mutualism, and commensalism.</td>
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<tr>
<td>Recognize that genetic mutation leads to diversity within a species when can lead to speciation.</td>
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<tr>
<td>Content Standard 7:</td>
<td>Dates Taught</td>
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<tr>
<td>Describe biotic and abiotic factors in the environment.</td>
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<tr>
<td>Examples: biotic—plants, animals; abiotic—climate, water, soil</td>
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<tr>
<td>Classifying organisms as autotrophs or heterotrophs.</td>
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<tr>
<td>Arranging the sequence of energy flow in an ecosystem through food webs, food chains, and energy pyramids.</td>
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<tr>
<td>Describe biotic factors and recognize examples. are from item specifications</td>
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<tr>
<td>Describe abiotic factors and recognize examples.</td>
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</tbody>
</table>
## SCIENCE

### 4th Nine Weeks: Scope and Sequence

#### Content Standards 6th Grade

<table>
<thead>
<tr>
<th>Content Standard</th>
<th>Dates Taught</th>
<th>% of Students scoring over 70%</th>
<th>Dates Re-taught (Optional)</th>
<th>Formative and Summative Assessments/ (Any Additional Comments Optional)</th>
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</thead>
<tbody>
<tr>
<td>Content Standard 7: Describe Earth’s biomes.</td>
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<tr>
<td>Examples: aquatic biomes, grasslands, deserts, chaparrals, taigas, tundras</td>
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<tr>
<td>Identifying geographic factors that cause diversity in flora and fauna, including elevation, location, and climate</td>
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<tr>
<td>Content Standard 8: Describe how Earth’s rotation, Earth’s axial tilt, and distance from the equator cause variations in the heating and cooling of various locations on Earth.</td>
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<tr>
<td>Content Standard 9: Identify the moon’s phases</td>
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<tr>
<td>Describing lunar and solar eclipses</td>
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<tr>
<td>Relating effects of the moon’s positions on oceanic tides</td>
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<tr>
<td>Content Standard 10: Describe components of the universe and their relationships to each other, including stars, planets and their moons, solar systems, and galaxies.</td>
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<tr>
<td>Identifying the impact of space exploration on innovations in technology</td>
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<tr>
<td>Examples: MRI, microwave, satellite imagery, GPS</td>
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<tr>
<td>Mapping season changes in locations of constellations in the night sky</td>
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<tr>
<td>Describing the life cycle of a star</td>
<td>Example: H-R diagram</td>
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</tbody>
</table>
### Content Standards 6th Grade

<table>
<thead>
<tr>
<th>Content Standard 11:</th>
<th>Dates Taught</th>
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<th>Dates Re-taught (Optional)</th>
<th>Formative and Summative Assessments/ (Any Additional Comments Optional)</th>
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</thead>
<tbody>
<tr>
<td>Describe units used to measure distance in space, including astronomical units and light years.</td>
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<tr>
<td>Content Standards 5th Grade</td>
<td>Dates Taught</td>
<td>% of Students scoring over 70%</td>
<td>Dates Re-taught (Optional)</td>
<td>Formative and Summative Assessments/ (Any Additional Comments Optional)</td>
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<tr>
<td><strong>LIFE SCIENCE</strong></td>
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<tr>
<td>Content Standard 8:</td>
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<tr>
<td>Identify major body systems and their functions, including the circulatory system, respiratory system, excretory system, and reproductive system.</td>
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<tr>
<td>Content Standard 9:</td>
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<tr>
<td>Describe the relationship of populations of a habitat to various communities and ecosystems.</td>
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<tr>
<td>Describing the relationship between food chains and food webs</td>
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<tr>
<td>Describing symbiotic relationships</td>
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<tr>
<td>Content Standards 4th Grade</td>
<td>Dates Taught</td>
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<tr>
<td>PHYSICAL SCIENCE</td>
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<tr>
<td>Content Standard 2:</td>
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<tr>
<td>Compare different pitches of sound produced by changing the size, tension, amount, or type of vibrating material.</td>
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<tr>
<td>Describing the relationship between the structure of the ear and hearing</td>
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<tr>
<td>Content Standard 3:</td>
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<tr>
<td>Recognize how light interacts with transparent, translucent, and opaque materials.</td>
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<tr>
<td>Examples: transparent – most light passes through, Translucent-some light passes through, Opaque-no light passes through</td>
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<tr>
<td>Predicting the reflection or absorption of light by various objects</td>
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<tr>
<td>EARTH AND SPACE SCIENCE</td>
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<tr>
<td>Content Standard 9:</td>
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<tr>
<td>Describe the appearance and movement of Earth and its Moon</td>
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<tr>
<td>Identifying the waxing and waning of the moon in the night sky</td>
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<tr>
<td>Identifying lunar and solar eclipses</td>
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</tbody>
</table>
## SCIENCE

### 4th Nine Weeks: Scope and Sequence

#### Content Standards 3rd Grade

<table>
<thead>
<tr>
<th>Content Standard 6: Identify structures and functions of the muscular and skeletal systems of the human body.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content Standard 7: Describe the life cycles of plants, including seed, seed germination, growth, and reproduction.</td>
</tr>
<tr>
<td>Describing the role of plants in a food chain</td>
</tr>
<tr>
<td>Identifying plant and animal cells</td>
</tr>
<tr>
<td>Describing how plants occupy space and use light, nutrients, water, and air</td>
</tr>
<tr>
<td>Classifying plants according to their features</td>
</tr>
<tr>
<td><em>Examples:</em> evergreen or deciduous, flowering or nonflowering</td>
</tr>
<tr>
<td>Identifying helpful and harmful effects of plants</td>
</tr>
<tr>
<td><em>Examples:</em> helpful – provide food, control erosion; harmful – cause allergic reactions, produce poisons</td>
</tr>
<tr>
<td>Identifying how bees pollinate flowers</td>
</tr>
<tr>
<td>Identifying photosynthesis as the method used by plants to produce food</td>
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</tbody>
</table>

| Dates Taught | % of Students scoring over 70% | Dates Re-taught (Optional) | Formative and Summative Assessments/ (Any Additional Comments Optional) |
### SCIENCE

#### 4th Nine Weeks: Scope and Sequence

<table>
<thead>
<tr>
<th>Content Standards</th>
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<tbody>
<tr>
<td><strong>PHYSICAL SCIENCE</strong></td>
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<tr>
<td>Content Standard 1: Identify states of matter as solids, liquids, and gases.</td>
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<tr>
<td>Describing objects according to physical properties, including hardness, color, and flexibility</td>
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<tr>
<td>Describing changes between states of matter</td>
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<tr>
<td>Measuring quantities of solids and liquids</td>
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<tr>
<td><strong>EARTH AND SPACE SCIENCE</strong></td>
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<tr>
<td>Content Standard 11: Identify the basic components of our solar system, including the sun, the planets, and Earth’s moon.</td>
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## SCIENCE
### 4th Nine Weeks: Scope and Sequence

<table>
<thead>
<tr>
<th>Content Standards 1st Grade</th>
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<tr>
<td><strong>PHYSICAL SCIENCE</strong></td>
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<tr>
<td>Content Standard 1: Select appropriate tools and technological resources needed to gather, analyze, and interpret data.</td>
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<tr>
<td><em>Examples:</em> platform balances, hand lenses, computers, maps, graphs, journals</td>
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<tr>
<td>Content Standard 2: Identify basic properties of objects.</td>
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<tr>
<td><em>Examples:</em> size, shape, color, texture</td>
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<tr>
<td><strong>LIFE SCIENCE</strong></td>
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<tr>
<td>Content Standard 5: Identify parts of the human body, including head, neck, shoulders, arms, spine, and legs.</td>
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<tr>
<td>Recognizing the importance of a balanced diet for healthy bones</td>
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<tr>
<td>Discussing the relationship of muscles and bones to locomotion</td>
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<tr>
<td>Discussing the relationship of bones to protection of vital organs</td>
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<tr>
<td><em>Examples:</em> protection of brain by skull</td>
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<tr>
<td>Identifying technology used by scientists to study the human body</td>
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<tr>
<td><em>Examples:</em> X-ray images, magnetic resonance imaging (MRI)</td>
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## SCIENCE
### 4th Nine Weeks: Scope and Sequence

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<th>Content Standards</th>
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<td><strong>PHYSICAL SCIENCE</strong></td>
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<tr>
<td>Content Standard 2: Identify the sun as Earth’s source of light and heat.</td>
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<tr>
<td>Predicting the effect of the sun on living and nonliving things</td>
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<tr>
<td>Identifying relationships between light and shadows</td>
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<tr>
<td>Predicting the occurrence of shadows</td>
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<tr>
<td>Content Standard 4: Identify properties of motion, including change of position and change of speed.</td>
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<tr>
<td>Content Standard 5: Predict whether an object will be attracted by a magnet.</td>
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</table>