# Grade 6-8 Science Scope and Sequence Progression of Learning

<table>
<thead>
<tr>
<th>Grade Six</th>
<th>Grade Seven</th>
<th>Grade Eight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific Process Skills</strong> <em>(15 Days)</em></td>
<td><strong>Scientific Process Skills</strong> <em>(15 Days)</em></td>
<td><strong>Scientific Process Skills</strong> <em>(15 Days)</em></td>
</tr>
</tbody>
</table>
| - Physical Science as a Domain & Potential Careers  
  - Lab Safety  
  - Models, Tools and Equipment, Metric System (SI)  
  - Scientific Inquiry  
  - Technology | - Life Science as a Domain, Potential Careers  
  - Lab Safety  
  - Models, Tools and Equipment, Metric System (SI)  
  - Scientific Inquiry  
  - Technology | - Earth Science as a Domain, Potential Careers  
  - Lab Safety  
  - Models, Tools and Equipment, Metric System (SI)  
  - Scientific Inquiry  
  - Technology |
| **Structure and Properties of Matter** *(55 Days)* | **Structure, Function & Information Processing** *(55 Days)* | **Earth’s Systems, History & Changing Surface** *(90 Days)* |
| - Atom/Molecule & Element/Compound  
  - States of Matter  
  - Mixtures & Solutions  
  - Chemical and Physical Properties  
  - Law of Conservation of Matter  
  - Chemical Reactions  
  - Relationship Among Density, Mass, & Volume | - Characteristics of Living Things  
  - Cells  
  - Levels of Organization (cells/tissues/organs/systems)  
  - Classification (Taxonomy)  
  - Human Body Systems | - Minerals, Rocks & The Rock Cycle  
  - Plate Tectonics, Earthquakes & Volcanoes  
  - Uniformitarianism & Law of Superposition  
  - Erosion & Weathering  
  - Natural Resources  
  - Human Impact and Dependence  
  - Geologic Time  
  - Evidence of a Common Ancestry |
| **Forces and Interactions** *(55 Days)* | **Growth and Reproduction of Organisms** *(55 Days)* | **Weather and Climate** *(45 Days)* |
| - Newton’s Laws of Motion  
  - Electromagnetic & Gravitational Forces | - Sexual and Asexual Reproduction  
  - Genetics  
  - Variation of Traits  
  - Evolution & Natural Selection | - Water/Water Cycle and Is Effect on Local Weather Patterns  
  - Severe Weather  
  - Climate Change  
  - Ocean Currents  
  - Human Impact |
| **Energy & Waves** | **Matter and Energy in Organisms &** | **Astronomy** |
| **Growth and Reproduction of Organisms** *(55 Days)* | **Weather and Climate** *(45 Days)* | **Astronomy** |
| - Water/Water Cycle and Is Effect on Local Weather Patterns  
  - Severe Weather  
  - Climate Change  
  - Ocean Currents  
  - Human Impact | - Water/Water Cycle and Is Effect on Local Weather Patterns  
  - Severe Weather  
  - Climate Change  
  - Ocean Currents  
  - Human Impact | - Water/Water Cycle and Is Effect on Local Weather Patterns  
  - Severe Weather  
  - Climate Change  
  - Ocean Currents  
  - Human Impact |
### GRADE 6-8 SCIENCE SCOPE AND SEQUENCE PROGRESSION OF LEARNING

<table>
<thead>
<tr>
<th>GRADE SIX</th>
<th>GRADE SEVEN</th>
<th>GRADE EIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>(55 DAYS)</td>
<td>ECOSYSTEMS/INTERDEPENDANT RELATIONSHIPS IN ECOSYSTEMS (55 DAYS)</td>
<td>(30 DAYS)</td>
</tr>
</tbody>
</table>
| - Law of Conservation of Energy  
- Potential and Kinetic Energy  
- Properties of Waves (light, sound, & water)  
- Heat Transfer (Conduction, Convection, & Radiation)  
- Electromagnetic Radiation | - Photosynthesis and Cellular Respiration  
- Living Things in Their Environment  
- Energy Flow in Ecosystems  
- Interactions Among Living Things  
- Biodiversity | - Seasons, Tides, Phases of the Moon, Eclipses  
- Solar System, Galaxies, & Universe  
- The Big Bang Theory  
- Stars  
- Human Impact |

### NECAP ASSESSMENT TARGETS

- ESS1:8:2.2  
- ESS1:8:5.2  
- ESS1:8:6.4  
- ESS1:8:7.3  
- ESS2:8:1.4  
- ESS2:8:3.4  
- ESS2:8:3.5  
- ESS2:8:4.1  
- LS1:8:1.2  
- LS1:8:2.4  
- LS1:8:2.5  
- LS1:8:3.6  
- LS1:8:3.7  
- LS2:8:1.3  
- LS2:8:2.2  
- LS2:8:3.6  
- LS3:8:2.3  
- LS3:8:3.5  
- LS4:8:2.4  
- LS4:8:3.3  
- LS4:8:3.4  
- PS1:8:1.6  
- PS1:8:1.7  
- PS1:8:2.4  
- PS1:8:2.5  
- PS1:8:2.6  
- PS2:8:1.5  
- PS2:8:2.2  
- PS2:8:3.6  
- PS3:8:1.3

(For actual text: please see GSE’s for Earth Space, Life, and Physical Science.)