

## 6th, 7th, and 8<sup>th</sup> Grade Science Courses

**Course Philosophy:** Genesis 1:1 states the “God created the heavens and the earth.” We believe that there is a divine order in the design of everything. Using this as a foundation, the scientific method should bring our students to a fuller understanding of the truth of God’s word. Therefore we will provide a solid foundation in science that is based on Biblical principles.

**Course Goals:** Students will participate in Interactive Science Notebooks, group collaboration, and labs. Students will create an online portfolio that contains reflections and projects. Science curriculum is based on the Next Generation Science Standards (NGSS).

**Areas to be evaluated:** Class participation, notebook checks, homework assignments, quizzes and tests, and Individual and group projects

### Grading Categories

Classwork & participation:	25%
Reflections:	25%
Homework:	25%
Project assignments/tests:	25%

### Grading:

**Participation:** Students will strive to earn 10 points each week (tracked using Class Dojo). This will be based on each student’s actions throughout the class periods during the week. Students are expected to: Follow Note-Taking procedures; Interact with peers during class discussions; answer questions when called upon, and follow classroom norms and expectations.

**Homework:** Worth up to 5 points for each homework assignment

**Tests and Quizzes:** Point values will vary

**Reflections:** Students will write reflections after each unit highlighting the main themes of the chapters.

**Time allotment:** 49 min per day, 5 days      **Textbook:** *Interactive Science* (Pearson)

**Additional Activities:** Students will participate in group projects and create presentations. Sixth grade will be attending Catalina Island.

**Grade specific content chart on next page.**

**Course content:**

<b>6<sup>th</sup> Grade Science: Earth Science</b>	<b>7<sup>th</sup> Grade Science: Life Science</b>	<b>8<sup>th</sup> Grade Science: Physical Science</b>
<p>Earth's Structure</p> <ul style="list-style-type: none"> <li>Introduction to Earth</li> <li>Minerals and Rocks</li> <li>Plate Tectonics</li> <li>Earthquakes</li> <li>Volcanoes</li> </ul> <p>Earth's Surface</p> <ul style="list-style-type: none"> <li>Mapping Earth's Surface</li> <li>Weathering and Soil</li> <li>Erosion and Deposition</li> <li>A Trip Through Geologic Time</li> </ul> <p>Water and Atmosphere</p> <ul style="list-style-type: none"> <li>Fresh Water</li> <li>The Oceans</li> <li>The Atmosphere</li> <li>Weather</li> <li>Climate and Climate Change</li> </ul> <p>Astronomy Space</p> <ul style="list-style-type: none"> <li>Earth, Moon and Sun</li> <li>Exploring Space</li> <li>The Solar System</li> <li>Stars, Galaxies and the Universe</li> </ul>	<p>Ecology and the Environment</p> <ul style="list-style-type: none"> <li>Populations and Communities</li> <li>Ecosystems and Biomes</li> <li>Resources and Living Things</li> <li>Land, Air and Water Resources</li> <li>Energy Resources</li> </ul> <p>Cells and Heredity</p> <ul style="list-style-type: none"> <li>Introduction to Cells</li> <li>Cell Processes and Energy</li> <li>Genetics: the Science of Heredity</li> <li>DNA: the Code of Life</li> <li>Human Genetics and Genetic Technology</li> <li>Change Over Time</li> </ul> <p>Diversity of Life</p> <ul style="list-style-type: none"> <li>Introduction to Living Things</li> <li>Viruses, Bacteria, Protists and Fungi</li> <li>Plants</li> <li>Introduction to Animals</li> <li>Getting Around</li> <li>Obtaining Energy</li> <li>Animal Reproduction and Behavior</li> </ul> <p>Human Body Systems</p> <ul style="list-style-type: none"> <li>The Human Body</li> <li>Bones, Muscles and Skin</li> <li>Digestion</li> <li>Circulation</li> <li>Respiration and Excretion</li> <li>Fighting Disease</li> <li>The Nervous System</li> <li>The Endocrine System and Reproduction</li> </ul>	<p>Introduction to Chemistry</p> <ul style="list-style-type: none"> <li>Introduction to Matter</li> <li>Solids, Liquids and Gases</li> <li>Elements and the Periodic Table</li> <li>Atoms and Bonding</li> <li>Chemical Reactions</li> <li>Acids, Bases and Solutions</li> </ul> <p>Forces and Energy</p> <ul style="list-style-type: none"> <li>Motion</li> <li>Forces</li> <li>Work &amp; Machines</li> <li>Energy</li> <li>Thermal Heat and Energy</li> <li>Electricity</li> <li>Magnetism and Electromagnetism</li> </ul> <p>Sound and Light</p> <ul style="list-style-type: none"> <li>Characteristics of Waves</li> <li>Sound</li> <li>Light</li> </ul> <p>Science and Technology</p> <ul style="list-style-type: none"> <li>What is Science?</li> <li>Science, Society and You</li> <li>The Tools of Science</li> <li>Technology and Engineering</li> </ul>