

**Unit 1: A Changing Earth**  
**Chapter 1: Structure, Earthquakes and Volcanoes**  
**2 Weeks**  
**6.4**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• explain the structure and layers of the earth</li> <li>• describe the tectonic plates</li> <li>• discuss the causes and features of an earthquake</li> <li>• compare/contrast types of earthquake waves</li> <li>• explain the use of the Richter scale</li> <li>• describe the location of the 2 major seismic and volcanic belts</li> <li>• describe the structure of a volcano</li> <li>• explain causes of volcanic eruption</li> <li>• differentiate between lava and magma</li> <li>• differentiate between types of volcanic ejecta</li> <li>• identify parts of a volcano</li> <li>• identify dangers of volcanoes</li> <li>• list products of volcanoes</li> <li>• describe other kinds of thermal eruptions</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• volcanic ejecta samples</li> <li>• pictures</li> <li>• books on earthquakes and volcanoes</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• volcano report</li> </ul>

**Unit 1: A Changing Earth**  
**Chapter 2: Weathering and Erosion**  
**12 Days**  
**6.4**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• differentiate between the 3 major rock types, giving examples of each</li> <li>• differentiate between chemical and physical weathering</li> <li>• describe how acid rain forms</li> <li>• explain how limestone caves are formed in relation to chemical weathering</li> <li>• describe the formation and appearance of several cave formations</li> <li>• compare types and sizes of soil</li> <li>• illustrate soil horizons</li> <li>• differentiate between erosion and weathering</li> <li>• compare types of erosion and effects on rocks</li> <li>• describe how sediments are carried and deposited by a stream</li> <li>• identify types of mass movements</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• rock identification activity</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• rock and mineral samples</li> <li>• posters</li> <li>• cave pictures</li> <li>• videos</li> <li>• books related to chapter</li> <li>• Rock Cycle Rap</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answer to questions on worksheets</li> <li>• diagram the rock cycle</li> <li>• teacher made test</li> <li>• responses on rock identification activity</li> <li>• soil identification activity</li> </ul>

**Unit 1: A Changing Earth**  
**Chapter 3: Natural Resources**  
**10 Days**  
**6.4**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• recognize differences between renewable and nonrenewable resources</li> <li>• describe the 3 fossil fuels, their origin, acquisition and uses</li> <li>• describe benefits and problems related to nuclear energy</li> <li>• describe renewable /nonrenewable resources</li> <li>• name and identify uses of metals</li> <li>• recognize soil as a natural resource</li> <li>• identify ways to conserve soil</li> <li>• recognize that ocean is source for most fresh water</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• hands-on activities</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• books related to chapter</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answer to questions on worksheets</li> <li>• teacher made test</li> <li>• responses to Clean Up the Spill activity</li> <li>• responses to Erosion Prevention Activity</li> </ul>

**Unit 2: God’s Living Creation**  
**Chapter 4: Cells and Classification**  
**13 Days**  
**6.3**

<b>Objectives</b>	<b>Methods</b>	<b>Resources</b>	<b>Assessment</b>
<p>The student will:</p> <ul style="list-style-type: none"> <li>• distinguish between living and nonliving things</li> <li>• identify 5 characteristics of living things</li> <li>• explain the cell theory</li> <li>• review the history of the microscope</li> <li>• identify cells as living organisms</li> <li>• discuss relationship of cells, tissues, and systems</li> <li>• identify cell structures</li> <li>• compare/contrast plant/animal cells</li> <li>• introduce process of cell division</li> <li>• distinguish groups according to criteria</li> <li>• name the 6 kingdoms</li> <li>• compare/contrast man to/from other living organisms</li> <li>• recognize creator of current method of classification</li> <li>• know levels of classification system</li> <li>• identify proper form of scientific name</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• posters</li> <li>• videos</li> <li>• books related to chapter</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answer to questions on worksheets</li> <li>• teacher made test</li> <li>• Evaluation of Cell Model Project</li> <li>• responses to Classification activity</li> </ul>

**Unit 2: God’s Living Creation**  
**Chapter 5: Animal Classification**  
**2 Weeks**  
**6.1**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• recognize invertebrates and vertebrates as a way to distinguish animals</li> <li>• describe unique characteristics of mollusks</li> <li>• describe and compare types of worms</li> <li>• explain how worms can be helpful/harmful</li> <li>• describe unique characteristics of arthropods</li> <li>• identify characteristics of various vertebrates</li> <li>• recognize the life cycle of most amphibians</li> <li>• identify characteristics of mammals</li> <li>• compare marsupials to other mammals</li> <li>• compare humans to mammals</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, workbook, and activities individually and in groups</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• video</li> <li>• posters</li> <li>• books on animals</li> <li>• insects caught by students</li> <li>• insect field guides</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• teacher made test</li> <li>• teacher made quiz</li> <li>• Responses to Blubber Mitts activity</li> </ul>

**Unit 2: God’s Living Creation**  
**Chapter 6: Plant Classification**  
**9 Days**  
**6.2**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• explain the difference between vascular and nonvascular plants</li> <li>• recognize that vascular plants can be classified as seed-bearing and seedless plants</li> <li>• recognize that seed-producing plants can be classified as gymnosperm and angiosperm</li> <li>• identify types of conifers and their uses</li> <li>• recognize that angiosperms include trees, shrubs, and flowering plants and their uses</li> <li>• distinguish among annuals, biennials, and perennials</li> <li>• compare monocotyledons and dicotyledons</li> <li>• identify vascular tissues and their functions</li> <li>• identify functions of the stem of a plant</li> <li>• describe differences between herbaceous and woody stems</li> <li>• list main functions of root systems</li> <li>• describe taproots and fibrous roots</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook and workbook questions and activities individually and in groups</li> <li>• flower dissection</li> <li>• fruit dissection</li> <li>• research projects</li> </ul>	<ul style="list-style-type: none"> <li>• materials for flower dissection</li> <li>• materials for fruit dissection</li> <li>• textbook</li> <li>• workbook</li> <li>• books on plants</li> <li>• videos</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• responses to questions on worksheets</li> <li>• responses to questions on flower and fruit dissections</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• evaluate Plant Products project</li> <li>• responses in activity How Big is My Tree?</li> </ul>

**Unit 3: Energy in Motion**  
**Chapter 7: Atoms and Molecules**  
**11 Days**  
**6.6**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• describe and label size, charge, location of atom parts</li> <li>• recognize atoms are made of one kind of atom</li> <li>• differentiate between atomic mass and atomic number</li> <li>• identify parts and job of the periodic chart</li> <li>• describe process for arranging elements</li> <li>• explain that a chemical change occurs when atoms combine</li> <li>• define synthesis and decomposition reactions</li> <li>• write a chemical formula</li> <li>• compare/contrast ionic and covalent bonding</li> <li>• define ion</li> <li>• recognize chemical reactions</li> <li>• identify a reaction endothermic or exothermic</li> <li>• define acids and bases and their products</li> <li>• explain how salt is formed</li> <li>• use pH indicator paper to determine if acid or base</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook and workbook questions and activities individually and in groups</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• books on atoms and molecules</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• teacher made test</li> <li>• evaluate elements “Wanted” Project</li> <li>• evaluate responses in Which Antacid is Best activity</li> </ul>

**Unit 3: Energy in Motion**  
**Chapter 8: Electricity and Magnetism**  
**9 Days**  
**6.6**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• identify two things needed for an electric current to flow</li> <li>• define static electricity, conductors, resistors, insulators, parallel circuits, series circuits, volt, ampere, watt, magnetism, electricity, electronics</li> <li>• explain how a battery works</li> <li>• describe what happens to magnets at their poles</li> <li>• explain how a generator works</li> <li>• identify some parts of a computer</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook and workbook questions and activities individually and in groups</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• books on electricity and magnetism</li> <li>• materials for “Unbreakable Circuit” activity</li> <li>• materials for Build an Electromagnet activity</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• teacher made test</li> <li>• evaluate responses in “Unbreakable Circuit” activity</li> <li>• evaluate responses in Build an Electromagnet activity</li> </ul>



**Unit 3: Energy in Motion**  
**Chapter 9: Motion and Machines**  
**9 Days**  
**6.6**

Objectives	Methods	Resources	Assessment
<ul style="list-style-type: none"> <li>• define speed, velocity, mass, momentum, pulley, wheel and axle, inclined plane, wedge, screw, compound machine</li> <li>• explain why a reference point is needed to observe motion</li> <li>• identify Newton's three laws of motion</li> <li>• explain that gravity and friction work against inertia</li> <li>• explain that work equals force times distance</li> <li>• differentiate between the three classes of levers</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books related to chapter</li> <li>• materials for Mini Cars in Motion activity</li> <li>• materials for modeling three types of levers</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• reactions in Mini Cars in Motion activity</li> <li>• responses in creating each type of lever</li> </ul>

**Unit 4: Beyond Our Earth**  
**Chapter 10: Stars**  
**9 Days**  
**6.5**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• explain how stars produce their own light</li> <li>• define apparent magnitude, absolute magnitude, pulsating variable star, eclipsing variable star, nova, supernova, reflecting telescope, refracting telescope, open star cluster, globular star cluster, asteroids, meteoroids, meteors, meteorites, comets</li> <li>• recognize stars are classified according to color</li> <li>• explain how distance is measured in space</li> <li>• explain how a neutron star and black hole are formed</li> <li>• identify constellations</li> <li>• explain why a Christian should NOT be involved in astrology</li> <li>• identify how many stars are in a binary star group and a multiple star group</li> <li>• identify our galaxy as the Milky Way and that it is part of a cluster of galaxies called the Local Group</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books on stars</li> <li>• materials for Crater Creations activity</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• Crater Creations activity</li> </ul>

**Unit 4: Beyond Our Earth**  
**Chapter 11: Solar System**  
**11 Days**  
**6.5**

Objectives	Methods	Resources	Assessment
<ul style="list-style-type: none"> <li>• identify parts of the sun</li> <li>• describe characteristics of a solar storm</li> <li>• explain why Earth has seasons</li> <li>• understand how sun's gravitational pull keeps planets in orbit</li> <li>• define inner planets, outer planets, solar and lunar eclipses, satellite, probe,</li> <li>• history of planet discovery</li> <li>• characteristics of the planets</li> <li>• explain how God made earth unique</li> <li>• explain why the same side of the moon faces earth</li> <li>• describe history of space exploration</li> <li>• explain how rockets work</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books on solar system</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• evaluate Travel Brochure project</li> <li>• evaluate responses to Rocket Race activity</li> </ul>

**Unit 5: God's Continuing Plan**  
**Chapter 12: Plant and Animal Reproduction**  
**8 Days**  
**6.1 & 6.2**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• explain flower part purposes</li> <li>• define pollination, fertilization, germination, seeds, spores, placental gestation, marsupial gestation,</li> <li>• explain how to classify fruits</li> <li>• explain how conifers reproduce</li> <li>• recognize that animals begin as a single cell</li> <li>• differentiate between types of eggs and why some animals lay eggs</li> <li>• identify methods of asexual reproduction</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books on reproduction</li> <li>• materials for flower dissection</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• evaluate responses to Flower Dissection activity</li> </ul>

**Unit 5: God's Continuing Plan**  
**Chapter 13: Heredity and Genetics**  
**9 Days**  
**???**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• define chromosomes, DNA, genes, dominant genes, recessive genes,</li> <li>• identify learned and inherited traits</li> <li>• identify structure of DNA molecule</li> <li>• identify ways DNA testing is used</li> <li>• describe Mendel's experiments and conclusions</li> <li>• predict genetic probability using a Punnett square</li> <li>• identify sex-linked traits</li> <li>• identify common genetic disorders and diseases</li> <li>• explain genetic engineering and how it is helpful and harmful</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books about chapter</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• look for recessive and dominant traits on themselves\</li> <li>• evaluate responses of DNA model activity</li> <li>• evaluate performance in Paper Pet activity</li> </ul>

**Unit 6: Our Intricate Bodies**  
**Chapter 14: The Nervous System**  
**10 Days**

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Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• identify two main parts of the nervous system</li> <li>• describe the parts of the central nervous system, the peripheral nervous system, and the endocrine system</li> <li>• list the four lobes of the cerebrum</li> <li>• differentiate the functions of the three parts of the brain</li> <li>• define neuron and how it works</li> <li>• describe a reflex</li> <li>• describe the five senses and the nerves associated with them</li> <li>• distinguish between short-term memory and long-term memory</li> <li>• describe REM sleep</li> <li>• identify disorders of the nervous system and endocrine system</li> <li>• recognize problems of drug abuse and how they affect the nervous system</li> <li>• list biblical reasons for NOT taking drugs</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books about the nervous system</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> <li>• Evaluate performance in Reaction activity and Touch Tester activity</li> </ul>

**Unit 6: Our Intricate Bodies**  
**Chapter 15: Immune System**  
**9 Days**  
**???**

Objectives	Methods	Resources	Assessment
<p>The student will:</p> <ul style="list-style-type: none"> <li>• recognize disease as a consequence of sin</li> <li>• explain how diseases are classified</li> <li>• identify common pathogens and related diseases</li> <li>• list ways pathogens are spread</li> <li>• differentiate between communicable and noncommunicable diseases</li> <li>• define epidemiologist</li> <li>• identify defensive barriers of the body</li> <li>• explain functions of white blood cells during immune response</li> <li>• list three ways the body can obtain immunity</li> <li>• compare/contrast antibiotics/antibodies</li> <li>• identify problems when the immune system malfunctions</li> </ul>	<ul style="list-style-type: none"> <li>• lecture</li> <li>• discussion</li> <li>• individual reading</li> <li>• completing textbook questions, worksheets and activities individually and in groups</li> <li>• videos</li> <li>• daily review</li> </ul>	<ul style="list-style-type: none"> <li>• textbook</li> <li>• workbook</li> <li>• videos</li> <li>• posters</li> <li>• pictures</li> <li>• books about the immune system</li> </ul>	<ul style="list-style-type: none"> <li>• participation in class discussion</li> <li>• responses to questions from text</li> <li>• answers to questions on worksheets</li> <li>• teacher made test</li> <li>• teacher made quizzes</li> </ul>