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

6.4

What can we learn about God through studying Creation? How does God provide for our needs through studying Creation? What did the curse of Sin cost us a s believers? How does God use Creation for His glory? How as the flood viewed in relation to mankind? What is the significance of the rainbow?

Objectives	Methods	Resources	Assessment
 The student will: explain the structure and layers of the earth describe the tectonic plates discuss the causes and features of an earthquake compare/contrast types of earthquake waves explain the use of the Richter scale describe the location of the 2 major seismic and volcanic belts describe the structure of a volcano explain causes of volcanic eruption differentiate between lava and magma differentiate between types of volcanic ejecta identify parts of a volcanoes list products of volcanoes describe other kinds of thermal eruptions 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters volcanic ejecta samples pictures books on earthquakes and volcanoes 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes volcano report

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

How are we to be stewards of God's Creation? How does God use Forces to the Earth's benefit? What is God's proviso\ion for mankind in this chapter? How is God the Master of Creation? How is mankind responsible for its resources and its actions?

Objectives	Methods	Resources	Assessment
 The student will: differentiate between the 3 major rock types, giving examples of each differentiate between chemical and physical weathering describe how acid rain forms explain how limestone caves are formed in relation to chemical weathering describe the formation and appearance of several cave formations compare types and sizes of soil illustrate soil horizons differentiate between erosion and weathering compare types of erosion and effects on rocks describe how sediments are carried and deposited by a stream identify types of mass movements 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups rock identification activity daily review 	 textbook workbook rock and mineral samples posters cave pictures videos books related to chapter Rock Cycle Rap 	 participation in class discussion responses to questions from text answer to questions on worksheets diagram the rock cycle teacher made test responses on rock identification activity soil identification activity

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

How are we responsible for the natural resources God has given us? How has God given mankind dominion over resources? How has God provided for us?

Objectives	Methods	Resources	Assessment
 The student will: recognize differences between renewable and nonrenewable resources describe the 3 fossil fuels, their origin, acquisition and uses describe benefits and problems related to nuclear energy describe renewable /nonrenewable resources name and identify uses of metals recognize soil as a natural resource identify ways to conserve soil recognize that ocean is source for most fresh water 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups hands-on activities daily review 	 textbook workbook videos posters books related to chapter 	 participation in class discussion responses to questions from text answer to questions on worksheets teacher made test responses to Clean Up the Spill activity responses to Erosion Prevention Activity

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

How can we see God's perfect design in cell design? How can we see the effect of the result of sin? How are death and decay part of God's plan? How is mankind special in comparison to God's other creations?

Objectives	Methods	Resources	Assessment
 The student will: distinguish between living and nonliving things identify 5 characteristics of living things explain the cell theory review the history of the microscope identify cells as living organisms discuss relationship of cells, tissues, and systems identify cell structures compare/contract plant/animal cells introduce process of cell division distinguish groups according to criteria name the 6 kingdoms compare/contrast man to/from other living organisms recognize creator of current method of classification know levels of classification system identify proper form of scientific name 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups daily review 	 textbook workbook posters videos books related to chapter 	 participation in class discussion responses to questions from text answer to questions on worksheets teacher made test Evaluation of Cell Model Project responses to Classification activity

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

What role does man play in relationship to animals? How is man responsible for his actions when it comes to the animal kingdom? How does Creation model biblical truth? Ho wdoes God provide for his creation?

Objectives	Methods	Resources	Assessment
 The student will: recognize invertebrates and vertebrates as a way to distinguish animals describe unique characteristics of mollusks describe and compare types of worms explain how worms can be helpful/harmful describe unique characteristics of arthropods identify characteristics of various vertebrates recognize the life cycle of most amphibians identify characteristics of mammals compare marsupials to other mammals compare humans to mammals 	 lecture discussion individual reading completing textbook questions, workbook, and activities individually and in groups 	 textbook workbook video posters books on animals insects caught by students insect field guides 	 participation in class discussion responses to questions from text teacher made test teacher made quiz Responses to Blubber Mitts activity

Unit 2: God's Living Creation Chapter 6: Plant Classification 9 Days

6.2

How do we see God as the Master Creator in plant design? Is God creative and how can this be seen in botany? How are we required to give God our best?

Objectives	Methods	Resources	Assessment
 The student will: explain the difference between vascular and nonvascular plants recognize that vascular plants can be classified as seed-bearing and seedless plants recognize that seed-producing plants can be classified as gymnosperm and angiosperm identify types of conifers and their uses recognize that angiosperms include trees, shrubs, and flowering plants and their uses distinguish among annuals, biennials, and perennials compare monocotyledons and dicotyledons identify tynes of the stem of a plant describe differences between herbaceous and woody stems list main functions of root systems describe taproots and fibrous roots 	 lecture discussion individual reading completing textbook and workbook questions and activities individually and in groups flower dissection fruit dissection research projects 	 materials for flower dissection materials for fruit dissection textbook workbook books on plants videos 	 participation in class discussion responses to questions from text responses to questions on worksheets responses to questions on flower and fruit dissections teacher made test teacher made quizzes evaluate Plant Products project responses in activity How Big is My Tree?

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

How is God seen as the Master Creator in this chapter? How can God be seen as an orderly God? How is God's Creation used for man's enjoyment?

Objectives	Methods	Resources	Assessment
 The student will: describe and label size, charge, location of atom parts recognize atoms are made of one kind of atom differentiate between atomic mass and atomic number identify parts and job of the periodic chart describe process for arranging elements explain that a chemical change occurs when atoms combine define synthesis and decomposition reactions write a chemical formula compare/contrast ionic and covalent bonding define ion recognize chemical reactions identify a reaction endothermic or exothermic define acids and bases and their products explain how salt is formed use pH indicator paper to determine if acid or base 	 lecture discussion individual reading completing textbook and workbook questions and activities individually and in groups 	 textbook workbook videos posters books on atoms and molecules 	 participation in class discussion responses to questions from text teacher made test evaluate elements "Wanted" Project evaluate responses in Which Antacid is Best activity

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

How dopes God provide for us? How is his design evident in magnetism and electricity? What are some of the key factors we can use to conserve electricity an dbe good stewards at the same time?

Objectives	Methods	Resources	Assessment
 The student will: identify two things needed for an electric current to flow define static electricity, conductors, resistors, insulators, parallel circuits, series circuits, volt, ampere, watt, magnetism, electricity, electronics explain how a battery works describe what happens to magnets at their poles explain how a generator works identify some parts of a computer 	 lecture discussion individual reading completing textbook and workbook questions and activities individually and in groups 	 textbook workbook videos posters books on electricity and magnetism materials for "Unbreakable Circuit" activity materials for Build an Electromagnet activity 	 participation in class discussion responses to questions from text teacher made test evaluate responses in "Unbreakable Circuit" activity evaluate responses in Build an Electromagnet activity

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

What is our responsibility to glorify God? How are simple machines used for God's gory? How is motion part of God's unique design?

Objectives	Methods	Resources	Assessment
 define speed, velocity, mass, momentum, pulley, wheel and axle, inclined plane, wedge, screw, compound machine explain why a reference point is needed to observe motion identify Newton's three laws of motion explain that gravity and friction work against inertia explain that work equals force times distance differentiate between the three classes of levers 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books related to chapter materials for Mini Cars in Motion activity materials for modeling three types of levers 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes reactions in Mini Cars in Motion activity responses in creating each type of lever

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

How do the heavens reflect God's glory? How does God use Creation for His purpose? Hoow does God's creation show his omniscience?

Objectives	Methods	Resources	Assessment
 The student will: explain how stars produce their own light define apparent magnitude, absolute magnitude, pulsating variable star, eclipsing variable star, eclipsing variable star, nova, supernova, reflecting telescope, refracting telescope, open star cluster, globular star cluster, globular star cluster, asteroids, meteoroids, meteoroids, meteoroids, meteoroids, meteoroids, meteoroids, meteoroids according to color explain how distance is measured in space explain how a neutron star and black hole are formed identify constellations explain why a Christian should NOT be involved in astrology identify how many stars are in a binary star group and a multiple star group identify our galaxy as the Milky Way and that it is part of a cluster of galaxies called the Local Group 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books on stars materials for Crater Creations activity 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes Crater Creations activity

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

How does the solar system show God's orderly design? What characteristics of God can we see through the design of the universe? What does the solar system show about God's character/

Objectives	Methods	Resources	Assessment
 identify parts of the sun describe characteristics of a solar storm explain why Earth has seasons understand how sun's gravitational pull keeps planets in orbit define inner planets, outer planets, solar and lunar eclipses, satellite, probe, history of planet discovery characteristics of the planets explain how God made earth unique explain why the same side of the moon faces earth describe history of space exploration explain how rockets work 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books on solar system 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes evaluate Travel Brochure project evaluate responses to Rocket Race activity

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

6.1 & 6.2

What is God's plan for mankind? How does reproduction show God's purposeful design? How does each individual reflect the image of God? Why are we created unique by God and treasured by Him? What is His one desire for his creation of mankind?

Objectives	Methods	Resources	Assessment
 The student will: explain flower part purposes define pollination, fertilization, germination, seeds, spores, placental gestation, marsupial gestation, explain how to classify fruits explain how conifers reproduce recognize that animals begin as a single cell differentiate between types of eggs and why some animals lay eggs identify methods of asexual reproduction 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books on reproduction materials for flower dissection 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes evaluate responses to Flower Dissection activity

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

What is God's plan for heredity? How does heredity show God's purposeful design? How does each individual reflect the image of God? Why are we created unique by God and treasured by Him? What is His one desire for his creation of mankind?

Objectives	Methods	Resources	Assessment
 The student will: define chromosomes, DNA, genes, dominant genes, recessive genes, identify learned and inherited traits identify structure of DNA molecule identify ways DNA testing is used describe Mendel's experiments and conclusions predict genetic probability using a Punnett square identify sex-linked traits identify common genetic disorders and diseases explain genetic engineering and how it is helpful and harmful 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books about chapter 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes look for recessive and dominant traits on themselves\ evaluate responses of DNA model activity evaluate performance in Paper Pet activity

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

How does the nervous system show the intricacies of God? How are nervous disorders part of the curse?

Objectives	Methods	Resources	Assessment
 The student will: identify two main parts of the nervous system describe the parts of the central nervous system, the peripheral nervous system, and the endocrine system list the four lobes of the cerebrum differentiate the functions of the three parts of the brain define neuron and how it works describe a reflex describe the five senses and the nerves associated with them distinguish between short-term memory and long-term memory describe REM sleep identify disorders of the nervous system recognize problems of drug abuse and how they affect the nervous system list biblical reasons for NOT taking drugs 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books about the nervous system 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes Evaluate performance in Reaction activity and Touch Tester activity

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

How do immune diseases relate to the curse? Why does God allow these diseases to exist? What are the ramifications of sin on the human body?

Objectives	Methods	Resources	Assessment
 The student will: recognize disease as a consequence of sin explain how diseases are classified identify common pathogens and related diseases list ways pathogens are spread differentiate between communicable and noncommunicable and noncommunicable diseases define epidemiologist identify defensive barriers of the body explain functions of white blood cells during immune response list three ways the body can obtain immunity compare/contrast antibiotics/antibodies identify problems when the immune system malfunctions 	 lecture discussion individual reading completing textbook questions, worksheets and activities individually and in groups videos daily review 	 textbook workbook videos posters pictures books about the immune system 	 participation in class discussion responses to questions from text answers to questions on worksheets teacher made test teacher made quizzes