BJU Press
Course Outline––Fifth Grade
Science 5 (3rd edition)

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
Unit 1: Out of the Earth **Chapter 1: Rocks and Minerals** The student will: • recognize the interrelationship of science concepts. • recognize that man's technology reflects God's natural world. • identify and locate the layers of the earth. • describe features of the core, mantle, and crust. • explain how weathering and erosion affect sediment. • define *humus.* • define *mineral.* • identify crystal structure, luster, hardness, color, and cleavage as characteristics of minerals. • explain how the Mohs scale is used to determine hardness. • measure mass to the nearest gram. • measure volume to the nearest milliliter. • follow directions. • observe the formation of Epsom-salt crystals. • collect and record observation data. • differentiate between characteristics of precious and semiprecious stones. • list some common uses of minerals. • recognize that some minerals are metals. • identify where minerals are found. • research a mineral found in foods or beverages. • display foods or beverages that contain the mineral.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Measuring Experimenting Observing Classifying Identifying and controlling variables Recording data Communicating Defining operationally	*Science 5* (3rd edition) Teacher's Edition Pages 1–32 Student Text Pages 1–28 Activity Manual Pages 1–20 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• Man's imitation of God's creation • God's perfect design • Interrelationship of the parts of creation • God as the only Creator • The Flood's effect on the earth • God's use of creation for His purpose • Man's use of God's resources • God's orderly design • God's design for the earth's resources • God's variety in creation • God's creation for man's enjoyment • God's love of beauty • God's variety in creation • God's provision for man • God's command to remember • God's strength and reliability

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• prepare an oral presentation. • use the PQ3R method to read informational text. • define *rock.* • identify three types of rock and explain how each is formed. • list examples of igneous rock, sedimentary rock, and metamorphic rock. • label rocks in a collection. • group rocks according to chosen criteria.				**Subject Integration:** • Art • Bible • Geography • History • Language
Unit 1: Out of the Earth **Chapter 2: Weathering and Erosion** The student will: • recognize that man uses technology to learn more about God's creation. • define *fossil.* • compare and describe the types of fossils that form in sediment: petrified fossil, mold, cast, trace fossil. • identify other materials in which fossils are sometimes preserved. • recognize that the two main beliefs about the origin of the earth are Creation and evolution. • identify phrases or statements that indicate a Creationist or evolutionist viewpoint. • make inferences as to the viewpoint from which literature is written. • make models of fossils. • relate models to fossils. • define *paleontology.* • describe how fossils are excavated and reconstructed. • explain why rock layers do not indicate the age of the fossil. • describe how paleontologists use carbon dating to guess the age of fossils.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Making and using models Observing Inferring Collecting and interpreting data Communicating Defining operationally	*Science 5* (3rd edition) Teacher's Edition Pages 33–56 Student Text Pages 29–51 Activity Manual Pages 21–32 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• Death and decay as a result of sin • The Flood's effect on the earth • Faith in the Word of God • Bible as the final authority • Man's finite knowledge • Discerning what is true • God as the only Creator • God as the Master of creation • God's perfect creation • Man's God-given curiosity • God's variety in creation **Subject Integration:** • Art • Bible

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• model the procedures a paleontologist uses while excavating. • complete a site map. • recognize that what is known about dinosaurs is based on the observations of fossils. • name some of the types of information that are known from fossils. • recognize some of the types of information that can be inferred from fossils. • realize that man and dinosaurs lived at the same time. • recognize that some dinosaurs survived the Flood. • identify biblical animals that may have been dinosaurs. • name some causes of extinction. • identify reasons why dinosaurs may have become extinct.				• Geography • History • Language • Technology • Writing
Unit 2: From the Beginning **Chapter 3: Matter** The student will: • recognize the interrelationship of science concepts. • give an example of how God's design of the properties of matter benefits man. • define *matter*. • explain how to find the volume of a solid and of a liquid. • differentiate between mass and weight. • recognize that volume, mass, and weight are ways that matter can be measured. • explain how density is related to mass and volume. • measure length to the nearest millimeter. • measure volume using cubic centimeters. • measure temperature to the nearest degree	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics	*Science5* (3rd edition) Teacher's Edition Pages 57–90 Student Text Pages 53–81 Activity Manual Pages 33–50 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• God's omnipotence • God as the only Creator • Discerning what is true • Evidences of salvation • God's care for His creation • God's provision for man • God overruling His natural laws **Subject Integration:** • Bible • History • Language

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
mark. • identify and describe the three states of matter. • list examples of solids, liquids, or gases. • define *physical change.* • recognize that a change of state is a physical change. • differentiate among melting, freezing, vaporization, and condensation. • use the scientific method. • identify atoms as small particles of matter. • differentiate between elements and compounds. • contrast chemical changes and physical changes. • plan a procedure for separating the parts of a mixture. • spply the physical properties of the items that make up a mixture. • experiment to test predictions. • infer how to physically remove a dissolved item from water. • define *mixture.* • differentiate between a mixture and a compound. • give some examples of mixtures. • identify some ways that substances in a mixture can be separated using their physical properties. • identify a solution as a type of mixture. • identify the parts of a solution. • define *concentration.* • explain ways to increase the rate of dissolving. • predict how surface area will affect the rate of dissolving. • relate results to other situations. • design a clay boat that will float.		**Science Process Skills:** Hypothesizing Predicting Experimenting Observing Inferring Communicating Defining operationally		• Math • Technology • Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• demonstrate buoyancy.				
Unit 2: From the Beginning **Chapter 4: Energy and Heat** The student will: • recognize that man uses God's natural laws to design useful technology. • define *energy.* • differentiate between potential energy and kinetic energy. • recognize that energy is often classified as either potential or kinetic. • recognize that the amount of thermal energy depends on the temperature and mass of a substance. • differentiate between thermal energy and temperature. • predict how the mass of a substance affects the amount of thermal energy it can transfer. • experiment to test a hypothesis. • recognize that increasing or decreasing thermal energy can cause matter to change to a different state. • explain what happens during thermal expansion. • define *calorie.* • recognize that substances differ in their ability to store thermal energy. • recognize that a food calorie is also called a kilocalorie. • calculate the resting metabolic rate. • track calorie consumption for three days. • define *heat.* • recognize that heat always flows from a warmer substance to a cooler substance. • identify and describe three ways that heat occurs.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Hypothesizing Predicting Measuring and using numbers Inferring Collecting and recording data Communicating Defining operationally	*Science 5* (3rd edition) <u>Teacher's Edition</u> Pages 91–116 <u>Student Text</u> Pages 83–108 <u>Activity Manual</u> Pages 51–66 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• Man's imitation of God's creation • God's plan for salvation • God's orderly design • God as the only Creator • God's design for man's body • Knowing God as greatest wisdom • God's overruling His natural laws • The Flood's effect on the earth • Man's use of God's resources • God's perfect creation **Subject Integration:** • Art • History • Language • Math • Technology

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• differentiate between conductors and insulators. • predict which type of insulation will best keep hot water warm. • test different types of insulation to determine which is the most effective. • measure and use numbers in an activity. • identify some common fuels. • distinguish between renewable and nonrenewable resources. • name some ways fuel is used. • give examples of unwanted heat. • explain why controlling heat is necessary. • explain how scientists controlled heat for the reentry of the space capsule. • name two types of insulation used on space shuttles. • name some ways that thermal energy is part of our everyday lives. • design a piece of equipment for a moon station. • research equipment developed for the space program.				
Unit 3: Because of the Climate **Chapter 5: Weather** The student will: • recognize the interrelationship of science concepts. • recognize that the consistency of weather allows man to design structures. • describe the atmosphere. • define *air pressure*. • recognize that gravity pulls the atmosphere toward the earth. • name an instrument that measures air pressure. • identify and describe the two lower layers of	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Exploration with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and	*Science 5* (3rd edition) Teacher's Edition Pages 117–146 Student Text Pages 109–138 Activity Manual Pages 67–80 Various instructional materials as listed and	• God as the Master of creation • God's perfect creation • God's provision for His creation • God's design for man's body • Man as stewards of God's creation • Man's use of God's resources • God's perfect

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
the atmosphere. • compare and contrast high-pressure air masses and low-pressure air masses. • define *front* and describe three types. • explain how temperature affects wind. • differentiate between global winds and local winds. • name examples of global winds and local winds. • predict whether water and soil warm and cool at the same rate. • identify and control variables. • measure and record temperatures. • relate temperature changes to the ability of each substance to hold and give off heat. • define *precipitation.* • differentiate among rain, sleet, snow, and hail. • define *humidity*. • identify and describe three basic shapes of clouds. • describe characteristics of thunderstorms, tornadoes, and hurricanes. • differentiate between a weather watch and a weather warning. • research the safety precautions for a type of severe weather. • make and present a poster or pamphlet. • describe the job of a meteorologist. • read and interpret basic symbols on a weather map. • make working weather instruments. • correctly use the instruments to gather information about the weather. • record data. • use data to make weather predictions.		review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Measuring and using numbers Making and using models Observing Collecting, recording, and interpreting data	specified in the Teacher's Edition and Teacher's Toolkit CD	design • God overruling His natural laws • Christian behavior as showing God's love to others **Subject Integration:** • Art • Bible • History • Language • Math • Writing • Technology
Unit 3: Because of the Climate	30–35	Read and discuss material in	*Science 5* (3rd edition)	• Man's imitation of

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
Chapter 6: Biomes The student will: • identify the areas of a zoo in which man might artificially control the climate. • differentiate between a biome and the biosphere. • identify climate as a major influence on land biomes. • describe the basic characteristics of the tundra. • explain how having a double coat of hair helps musk oxen keep warm. • list some ways that plants keep warm on the tundra. • describe the climate of the coniferous forest. • identify basic characteristics of the coniferous forest. • identify basic characteristics of the deciduous forest. • differentiate between conifers and deciduous trees. • name two ways that animals in the deciduous forest survive the changing seasons. • compare and contrast prairies and savannas. • explain how some savanna grasses and trees survive the dry season. • identify characteristics that all deserts have in common. • describe some ways that desert animals and plants are able to live in extreme temperatures and dryness. • identify some characteristics of water-efficient plants. • predict how waxy surfaces on plants affect water loss. • relate the effectiveness of a petroleum-jelly coating on a sponge to the waxy surfaces on	min. 3–4 days per week	text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Predicting Measuring Making and using models Observing Inferring Recording data	<u>Teacher's Edition</u> Pages 147–174 <u>Student Text</u> Pages 139–166 <u>Activity Manual</u> Pages 81–96 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	God's creation • God's provision for His creation • God's perfect design • Man as steward of God's creation **Subject Integration:** • Art • Geography • History • Language • Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
some leaves and stems. • describe the climate of a tropical rainforest. • identify the layers of the rainforest. • explain how the roots of rainforest trees help support them. • recognize that biomes are only a general way to classify sections of the biosphere. • recognize that a mountain consists of several biomes. • research a biome. • create a model of that biome. • name the two categories of aquatic biomes. • identify the largest marine biome. • explain why coral reefs are called "the rainforests of the sea." • identify the force that keeps river water moving. • recognize that biomes do not have specific boundaries. • define *wetlands.* • recognize that man has the God-given responsibility to be a good steward of the earth. • demonstrate how wetlands purify water. • infer how the activity models the purifying process of a real wetland.				
Unit 4: In Perfect Balance **Chapter 7: Interactions in an Ecosystem** The student will: • recognize the interrelationship of science concepts. • recognize that man's camouflage patterns are copies of God's designs. • identify two parts of an ecosystem. • explain the relationships between individuals, communities, and populations.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually.	*Science 5* (3rd edition) Teacher's Edition Pages 175–198 Student Text Pages 167–190 Activity Manual Pages 97–112	• Man's imitation of God's creation • Christians as faithful witnesses • God's provision for His creation • God's perfect design • Christ as a Christian's strength

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• identify the functions of producers, consumers, and decomposers. • explain why scavengers and decomposers are important to an ecosystem. • investigate a habitat. • distinguish between living things and nonliving things. • identify producers and consumers. • record interactions. • identify predators and prey in a food chain. • differentiate between a food chain and a food web. • describe the transfer of energy from one organism to another. • explain how competition affects population size. • identify predators and prey within a food web. • model a food web. • recognize interrelationships among organisms in a food web. • compare the model food web with an actual food web. • make a visual representation of a food web. • identify predators and prey within a food web. • identify animals as herbivores, omnivores, or carnivores. • identify the basic needs of plants and animals. • explain two ways that plants get food. • explain two ways that plants protect themselves. • explain some ways that animals protect themselves. • give three reasons why animals migrate. • describe the characteristics of hibernation. • define *symbiosis.* • give examples of the different kinds of		**Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Making and using models Observing Classifying Collecting and recording data Communicating Defining operationally	Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• God as the Master of creation **Subject Integration:** • Bible • Language • Math • Technology • Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
symbiosis. • differentiate between instincts and learned behaviors.				
Unit 4: In Perfect Balance **Chapter 8: Changes in an Ecosystem** The student will: • recognize that man uses the cycles that God created to help him invent new technology. • recognize that the earth has many cycles. • identify the seasonal changes that may occur in an ecosystem. • explain the carbon cycle. • differentiate between photosynthesis and respiration. • name two ways that nitrogen is changed into usable compounds. • describe the nitrogen cycle. • identify the parts of the water cycle. • identify and infer some ways that cycles work together in an ecosystem. • recognize that decomposers are a part of many cycles. • identify water as a variable that affects decomposition. • analyze the effects of water on the rate of decomposition. • identify three natural stresses on an ecosystem. • explain how fires and floods can be beneficial to an ecosystem. • identify some effects of a drought. • describe the process of succession. • recognize that sometimes what seems to man like a disaster is actually God's way of maintaining the earth. • research a historical stress, such as a famous fire, flood, or other disaster.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Hypothesizing Experimenting Observing Classifying Identifying and controlling variables Recording data Communicating Defining operationally	*Science 5* (3rd edition) Teacher's Edition Pages 199–220 Student Text Pages 191–212 Activity Manual Pages 113–124 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• Man's imitation of creation • God as the Master of creation • God's orderly design • Interrelationship of the parts of creation • God's perfect design • God's provision for His creation • Consequences of sin • God's use of forces for the earth's benefit • Man's use of God's resources • Man's God-given dominion **Subject Integration:** • Art • Bible • Geography • History • Language • Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• organize and present information about the stress. • collect and record information about ecosystems. • organize the information into a notebook for presentation. • identify some man-made stresses. • list some of the differing opinions about using natural resources. • define *native species* and *invasive species.* • differentiate between an extinct species and an endangered species.				
Unit 5: By Waves of Energy **Chapter 9: Sound** The student will: • recognize the interrelationship of science concepts. • recognize that man's technology can control sound because sound moves in predictable ways. • define *sound.* • define *wavelength.* • differentiate between the frequency and speed of sound waves. • observe how the size of a vibration affects its sound. • change a variable and compare results. • predict the highness or lowness of a sound. • define *pitch.* • explain how the pitch of a sound wave is related to its frequency. • identify the frequency range of human hearing. • define *volume.* • explain how the volume of a sound is related to the intensity of its sound waves.	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Hypothesizing Predicting Experimenting Observing Identifying and controlling	*Science 5* (3rd edition) Teacher's Edition Pages 221–242 Student Text Pages 213–234 Activity Manual Pages 125–136 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• Man's imitation of creation • God's design for man's body • Man's responsibility to glorify God • God's perfect design • God's creation for man's enjoyment **Subject Integration:** • Art • Bible • History • Language • Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
• define and describe *timbre*. • differentiate between *sound* and *noise*. • recognize that a sound fades as its energy is being used up. • list examples of how echoes are used in nature and technology. • name examples of how an acoustical engineer uses his knowledge of sound. • test the abilities of different mediums to carry sound. • write a paragraph that compares and contrasts the results. • compare the amount of sound absorbed by different materials. • predict which material will absorb the most sound. • rate the loudness of sounds. • identify relationships between materials and their abilities to absorb sounds.		variables Communicating		
Unit 5: By Waves of Energy **Chapter 10: Light** The student will: • recognize that God provides for man's needs. • define *light.* • explain how light waves are different from other waves. • identify the four properties of waves: wavelength, amplitude, frequency, and speed. • differentiate between the frequency of a wave and the speed of a wave. • differentiate between refraction and reflection. • recognize that the color of an object depends on which wavelengths of light are being reflected. • identify the primary colors of light. • explain the relationship between the primary	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics	*Science 5* (3rd edition) Teacher's Edition Pages 243–266 Student Text Pages 235–258 Activity Manual Pages 137–148cd Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• God's provision for man • God as the only Creator • Christians as a reflection of God • God's variety in creation • Giving God the best • Man's use of God's resources • God's perfect design • God's creation of invisible forces **Subject Integration:**

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
colors of art and the primary colors of light. • form a hypothesis. • test the visibility of colors. • infer which colors are most visible in fog. • explain how light reflects off smooth and rough surfaces. • identify and describe three kinds of mirrors. • identify telescopes, cameras, and lasers as some technologies that use light. • name some uses for lasers. • differentiate between the angle of incidence and the angle of reflection. • measure the angle of reflection. • infer the relationship between the angle of reflection and the angle of incidence. • identify the types of waves found in the electromagnetic spectrum. • name some uses for each type of electromagnetic wave. • identify different ways that light is used in technology. • make a collage that explains how different products use light.		**Science Process Skills:** Hypothesizing Predicting Measuring and using numbers Experimenting Observing Inferring Defining operationally		• Art • Bible • History • Language • Technology
Unit 6: Inside the Body **Chapter 11: Respiratory System** The student will: • recognize the interrelationship of science concepts. • recognize that man's designs mimic God's designs. • identify the respiratory system as the breathing system. • differentiate between involuntary breathing and voluntary breathing. • identify the muscles that help with breathing. • describe the movement of the body and air	30–35 min. 3–4 days per week	Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and	*Science 5* (3rd edition) <u>Teacher's Edition</u> Pages 267–290 <u>Student Text</u> Pages 259–280 <u>Activity Manual</u> Pages 149–162 Various instructional materials as listed and	• Man as God's special creation • Man's imitation of creation • Man created in God's image • God's design for man's body • God's perfect design • Man's responsibility to glorify God • Man's responsibility

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
when inhaling and exhaling. • make a model of a lung. • use the lung model to explain how the diaphragm moves during breathing. • explain how mucus and cilia help keep the respiratory system clean. • list the parts of the respiratory system from the nose and mouth to the larynx. • describe the function of the epiglottis. • explain how the vocal cords produce sound. • identify and describe the trachea, bronchi, and lungs. • describe the function of the lungs. • identify and describe the parts of the lungs. • explain causes of snoring, hiccupping, coughing, and sneezing. • form a hypothesis about how much air can be exhaled. • measure the diameter of a balloon and use that measurement to calculate the amount of air exhaled. • identify possible variables that affect the results. • identify some diseases that make it difficult to breathe properly. • describe what happens during an asthma attack. • recognize that allergies are not contagious. • name some reasons why smoking is harmful to your health. • explain why it is hard to quit smoking. • identify some of the dangers of smoking. • identify some reasons why people smoke. • list some biblical reasons for not smoking.		review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Hypothesizing Measuring and using numbers Making and using models Inferring Collecting, recording, and interpreting data Defining operationally	specified in the Teacher's Edition and Teacher's Toolkit CD	for his actions • Man's body as God's temple **Subject Integration:** • Bible • History • Language • Technology
Unit 6: Inside the Body **Chapter 12: Circulatory System**	30–35 min.	Read and discuss material in text.	*Science 5* (3rd edition)	• Trusting in God • Consequences of sin

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
The student will: • recognize that the health of our spiritual heart can affect the health of our physical heart. • name the parts of the circulatory system. • describe the path of blood through the heart. • define *pulse*. • explain the function of the pacemaker. • calculate the heart rate. • calculate how long it takes the heart rate to return to normal. • make a line graph using the heart-rate data. • identify and describe the three types of blood vessels. • name the largest artery and the largest veins. • differentiate between arteries and veins. • recognize that the exchange of gases takes place in the capillaries. • explain why William Harvey is important as a scientist and a physician. • identify the contents of blood. • describe the platelets, red blood cells, and white blood cells. • name the four main blood types. • describe what happens to blood after it is donated. • locate some of the main organs and blood vessels in the human body. • model the heart pumping blood. • compare the model with the function of the heart. • identify organs that help remove wastes from the body. • recognize that the kidneys help clean the blood. • name three ways to stay healthy. • recognize that none of man's inventions would	3–4 days per week	Use interactive and hands-on activities outlined in the Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually. **Evaluation Techniques:** Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics **Science Process Skills:** Hypothesizing Predicting Measuring and using numbers Making and using models Collecting and recording data Defining operationally	Teacher's Edition Pages 291–314 Student Text Pages 281–304 Activity Manual Pages 163–178 Various instructional materials as listed and specified in the Teacher's Edition and Teacher's Toolkit CD	• God's design for man's body • Man's finite knowledge • God's immutability • God's plan for salvation • God's salvation through Christ • God's design for man's body • God's omnipotence • God's knowledge of each individual • God as the perfect Creator • Man's responsibility for his actions • Man's imitation of creation • God's holding all creation together **Subject Integration:** • Bible • History • Language • Technology

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
be possible without God.				