

BJU Press
Course Outline—Sixth Grade
Science 6 (3rd edition)

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<p>Unit 1: A Changing Earth Chapter 1: Earthquakes The students will:</p> <ul style="list-style-type: none"> • Recognize the interrelationship of science concepts. • Explain that ideas about science change, but that God never changes. • Recognize that the earth’s surface changes constantly. • Explain the theory of plate tectonics. • Use graphic information to identify the parts of the earth and the different kinds of faults. • Infer that plate boundaries are unstable areas of the earth’s surface. • Compare and contrast P, S, and two kinds of L waves. • Explain the differences between the Mercali scale and the Richter scale. • Describe some ways that earthquakes cause damage. • Use a scientific method. • Make a model of a structure that can withstand the motion of an earthquake. • Record and analyze information to form conclusions. • Identify variables. • Explain the causes of a volcanic eruption. • Identify the parts of a volcano. • Describe three ways volcanoes are classified. • Design a volcano based on one of the three kinds of volcanoes. • Make a model of a volcano. • Communicate the type of volcano made and 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Predicting Measuring Experimenting Making and using models Observing Identifying and controlling variables Recording data Communicating</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages 1–28 <u>Student Text</u> Pages 1–24 <u>Activity Manual</u> Pages 1–20 Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> • Creation under the curse of sin • God’s omniscience • Interrelationship of the parts of creation • God’s use of creation for His glory • Man’s finite knowledge • The Flood as God’s judgment on sin • God’s omnipotence • God’s use of creation for His purposes • Christ as solid foundation for life • God’s love shown through Christ’s death • Man’s demonstration of God’s love • Christians as dependable workers • Christians as faithful workers • God as Master of creation • God’s use of forces for Earth’s benefit

Sixth Grade: Science

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<p>the process used to make the volcano.</p> <ul style="list-style-type: none"> Identify possible dangers of volcanoes. List some of the meteorological effects of a volcanic eruption. List some of the products of volcanoes. Describe other kinds of thermal eruptions. Identify the dangers and difficulties associated with exploring volcanoes. Design a piece of equipment that would help in volcano research. Use the PQ3R method to read informational text. 				<p>Subject Integration:</p> <ul style="list-style-type: none"> Bible Geography History Language Math Technology
<p>Unit 1: A Changing Earth Chapter 2: Weathering and Erosion The students will:</p> <ul style="list-style-type: none"> Recognize that scientific inferences are not always accurate. Identify the three types of rocks and explain how they are formed. Differentiate between mechanical and chemical weathering. Define weathering and provide examples of mechanical weathering. Define and give examples of chemical weathering. Describe how acid rain forms. Explain how limestone caves are formed as a result of chemical weathering. Measure length to the nearest millimeter. Measure mass to the nearest gram. Measure volume to the nearest milliliter. Compare the different kinds of soil and their relative sizes. Describe the factors that determine the composition of soil. Illustrate and describe the five soil horizons. 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Measuring Experimenting Observing Identifying variables</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher's Edition</u> Pages 29–56 <u>Student Text</u> Pages 25–50 <u>Activity Manual</u> Pages 21–36</p> <p>Various instructional material as listed and specified in the Teacher's Edition</p>	<ul style="list-style-type: none"> Christians as faithful witnesses God's perfect design God's use of forces for Earth's benefit Christian behavior as showing God's love to others Christians as faithful workers God as Master of creation Man as steward of God's creation Man's use of God's resources <p>Subject Integration:</p> <ul style="list-style-type: none"> Bible History Language Technology Writing

Sixth Grade: Science

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<ul style="list-style-type: none"> Follow the procedure of a flow chart. Analyze a soil sample. Record observations. Analyze experiment results. Predict the particles needed for a specific soil sample. Differentiate between erosion and weathering. Distinguish among examples of mass wasting Describe how sediments are carried and deposited by a stream. Record and analyze data. Measure accurately. Identify variables. Recognize the real-life problems of sand erosion and deposition. Explain how wind causes erosion. Compare the effects of ice erosion with other kinds of erosion. Identify how rocks are eroded by the forces of wind and glaciers. 		Recording data		
<p>Unit 1: A Changing Earth Chapter 3: Natural Resources</p> <p>The students will:</p> <ul style="list-style-type: none"> Recognize that God plans natural events to benefit His creation. Recognize the difference between renewable and nonrenewable resources. Explain how fossil fuels are formed. Identify the sources and uses of petroleum, natural gas, and coal. Describe the benefits and problems related to the use of nuclear energy. Explain the different methods of cleaning up an oil spill. Predict the best method for removing the oil. Use a model to demonstrate the different 	35–45 min. 5 days per week	<p>Read and discuss material in text.</p> <p>Use interactive and hands-on activities outlined in the Teacher's Edition.</p> <p>Conduct Activities and Explorations with students as a class, in small groups, and individually.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher's Edition</u> Pages 57–82</p> <p><u>Student Text</u> Pages 51–74</p> <p><u>Activity Manual</u> Pages 37–52</p> <p>Various instructional material as listed and specified in the Teacher's Edition</p>	<ul style="list-style-type: none"> God's use of forces for Earth's benefit God's provision for man Man's uses of God's resources The Flood's effect on the earth Man's responsibility for his actions Giving God the best God's plan for worship God's refining in Christians' lives God's design for

Sixth Grade: Science

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<p>methods of cleanup.</p> <ul style="list-style-type: none"> • Compare the methods used in this activity with the methods used in a real oil spill. • Describe some renewable energy sources. • Compare and contrast renewable sources of energy. • Name and identify the uses of several metals. • Recognize soil as a natural resource. • Identify several ways to conserve soil. • Make models of soil with and without erosion prevention. • Infer how certain materials prevent soil erosion. • Identify several natural resources. • Explain how the ocean is the source of most fresh water. • Identify locations of fresh water. • Describe the different kinds of ice. • Compare the differences between water accessibility in Bible times and water accessibility now. • Identify several ways to conserve water. • Recognize the living water. 		<p>Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Predicting Making a model Observing Inferring Recording data</p>		<p>earth's resources</p> <ul style="list-style-type: none"> • Man as a steward of God's creation • God's gift of eternal life • Salvation as the living water <p>Subject Integration:</p> <ul style="list-style-type: none"> • Art • Bible • Geography • History • Math • Technology • Writing
<p>Unit 2: God's Living Creation Chapter 4: Cells and Classification The students will:</p> <ul style="list-style-type: none"> • Understand the interrelationship of science concepts. • Recognize that God supplies the needs of every organism. • Distinguish between living things and nonliving things. • Identify five characteristics of living things. • Identify men associated with the development of the microscope. • Explain the cell theory. 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher's Edition</u> Pages 83–108</p> <p><u>Student Text</u> Pages 75–98</p> <p><u>Activity Manual</u> Pages 53–64</p> <p>Various instructional material as listed and</p>	<ul style="list-style-type: none"> • Creation under the curse of sin • Death and decay as a result of sin • God's perfect design • God's perfect creation • Man's finite knowledge • God's design for man's body • Purity of a

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<ul style="list-style-type: none"> • Identify the parts of a microscope. • Explain how to use a microscope. • Identify a cell as a living organism. • Discuss the relationship of cells, tissues, organs, and systems. • Identify cell structures. • Compare and contrast plant and animal cells. • Demonstrate knowledge of cell structure. • Construct a 3-D model of a cell. • Prepare a written report. • Correlate the function of cell structure to another organization. • Write and present a skit to compare a cell to an organization. • Describe the process of cell division-both mitosis and meiosis. • Recognize when mitosis occurs and when meiosis occurs. • Distinguish groups according to chosen criteria. • Complete a classification chart. • Name the six kingdoms. • Identify characteristics of each kingdom. • Explain how man is similar to and yet different from other living organisms. • Recognize that Carolus Linnaeus was responsible for the method of classification that we use. • List the levels of the classification system from the largest to smallest. • Compare the common names and the scientific names of organisms. • Write a scientific name properly. 		<p>review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Making and using models Observing Classifying Communicating</p>	<p>specified in the Teacher's Edition</p>	<p>Christian's heart</p> <ul style="list-style-type: none"> • Effect of a little sin • God's plan of redemption • God's provision for His creation • God's provision for man's sin • Man as God's special creation • Man's God-given dominion • Man's fall • Christ as sacrifice • God's omniscience • God's orderly design • God's variety in creation <p>Subject Integration:</p> <ul style="list-style-type: none"> • Bible • Language • Math • Writing
<p>Unit 2: God's Living Creation Chapter 5: Animal Classification The students will:</p>	<p>35–45 min. 5 days</p>	<p>Read and discuss material in text. Use interactive and hands-on</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher's Edition</u></p>	<ul style="list-style-type: none"> • God's care for His creation • God's omniscience

Sixth Grade: Science

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<ul style="list-style-type: none"> • Recognize that man is unaware of many parts of God’s creation. • Recognize invertebrates and vertebrates as a broad way to distinguish animals. • Recognize that unique animal characteristics allow classification. • Describe the unique characteristics of the sponge, jellyfish, mollusk, and echinoderm groups. • Construct a terrarium. • Observe land snails. • Record observations. • Describe three types of worms. • Compare a free-living worm with a parasite. • Explain why worms can be helpful to man. • Explain why worms can be harmful to man. • Identify crustaceans, arachnids, centipedes, millipedes, and insects as arthropods. • Describe basic characteristics of each kind of arthropod. • Observe the larval stage of complete metamorphosis. • Observe the pupal stage of complete metamorphosis. • Collect and record observation data. • Identify the characteristics of fish. • Identify the characteristics of amphibians. • Recognize how fish and amphibians are alike. • Describe the life cycle of most amphibians. • Identify two characteristics of reptiles. • Identify two characteristics of birds. • Explain how birds and reptiles are similar and different. • Identify four characteristics of mammals. • Explain how marsupials are different from other mammals. 	<p>per week</p>	<p>activities outlined in the Teacher's Edition. Conduct Activities and Exploration with students as a class, in small groups, and individually.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Predicting Measuring Experimenting Observing Inferring Identifying and controlling variables Recording data</p>	<p>Pages 109–142</p> <p><u>Student Text</u> Pages 99–132</p> <p><u>Activity Manual</u> Pages 65–82</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> • Man’s finite knowledge • God’s orderly design • God’s perfect design • God’s provision for His creation • God’s use of creation for His purposes • Christians as faithful workers • Man’s imitation of creation • Man created in God’s image • Man as God’s special creation • Man’s God-given curiosity <p>Subject Integration:</p> <ul style="list-style-type: none"> • Art • Bible • History • Language • Math • Writing

Sixth Grade: Science

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<ul style="list-style-type: none"> Recognize how humans are different from mammals. Write a hypothesis. Record temperatures and observations. Relate the effectiveness of shortening or lard as an insulator to the effectiveness of animal blubber. Associate animal parts with mechanical tools. Research to design a robotic animal. Prepare a drawing and description of the robotic animal. 				
<p>Unit 2: God’s Living Creation Chapter 6: Plant Classification</p> <p>The students will:</p> <ul style="list-style-type: none"> Recognize that man’s knowledge must continually be re-evaluated. Explain the difference between vascular and nonvascular plants. Recognize that vascular plants can be classified as seed-bearing plants and seedless plants. Identify ferns, horsetails, and club mosses as seedless vascular plants. Identify the parts of a fern: rhizome, fronds, fiddleheads. Recognize that seed-producing plants can be classified as gymnosperms and angiosperms. Identify four kinds of gymnosperms. Identify two kinds of conifers. Describe several ways that man uses conifers. Recognize that angiosperms include trees, shrubs, and flowering plants. Distinguish among annuals, biennials, and perennials. Name some ways that angiosperms are used. Compare monocotyledons and dicotyledons. 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Measuring Observing Inferring Classifying Collecting, recording, and interpreting data</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages 143–164</p> <p><u>Student Text</u> Pages 133–154</p> <p><u>Activity Manual</u> Pages 83–96</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> Man’s imitation of creation Man’s God-given curiosity God’s orderly design Man’s finite knowledge God’s love of beauty God’s variety in creation Giving God the best Man’s God-given dominion The Bible as final authority Christians rooted and grounded in Christ God’s perfect design God’s provision for His creation

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<ul style="list-style-type: none"> • Plan a visual to demonstrate how plants are classified. • Research products made from a given plant. • Prepare a display to demonstrate research results. • Identify the two kinds of vascular tissue and their functions. • List three main functions of the stem of a plant. • Describe the difference between herbaceous and woody stems. • List three main functions of the root system. • Describe the differences between taproots and fibrous roots. • Measure the circumference, height, and crown of a tree and calculate the tree's point value. • Produce and read a graph to show relationships. 		Communicating		Subject Integration: <ul style="list-style-type: none"> • Bible • Geography • History • Language • Math • Technology
<p>Unit 3: Energy in Motion Chapter 7: Atoms and Molecules The students will:</p> <ul style="list-style-type: none"> • Understand the interrelationship of science concepts. • Recognize that man's inferences are sometimes inaccurate. • Describe and label the size, charge, and location of each part of an atom. • Recognize that an element is made of only one kind of atom. • Differentiate between atomic mass and atomic number. • Identify the terms <i>period</i>, <i>group</i>, and <i>family</i> as they relate to a periodic chart. • Understand that the periodic chart is only a classification system. • Describe the process that Mendeleev used for 	35–45 min. 5 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	<i>Science 6</i> (3 rd edition) <u>Teacher's Edition</u> Pages 165–192 <u>Student Text</u> Pages 155–182 <u>Activity Manual</u> Pages 97–114 Various instructional material as listed and specified in the Teacher's Edition	<ul style="list-style-type: none"> • God's creation of invisible forces • God's holding all creation together • God's omniscience • Man's finite knowledge • God as Master of creation • God's orderly design • Christians bonded in Christ • Evidences of salvation • God's creation for man's enjoyment

Sixth Grade: Science

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<p>arranging elements.</p> <ul style="list-style-type: none"> • Identify the types of information in a square on the periodic table. • Research an element. • Construct a visual aid. • Explain that a chemical change occurs when atoms combine. • Give examples of synthesis and decomposition reactions. • Demonstrate how to write a chemical formula. • Compare and contrast ionic and covalent bonding. • Explain what causes an ion. • Recognize whether chemical reactions occur. • Collect data to identify a reaction as endothermic or exothermic. • Compare and contrast characteristics of acids and bases. • Describe the purpose of an indicator. • Identify products that are acids, bases, or salts. • Explain how a salt is formed. • Identify a solution as an acid or a base by using a pH indicator solution. • Estimate the strength of an acid or base solution by using a pH indicator solution. • Observe the effects of acids and bases on an indicator. • Hypothesize about the effectiveness of several antacids. • Make and use a model of “upset stomach” acid. • Infer information from the model. 		<p>Science Process Skills: Hypothesizing Predicting Measuring Experimenting Observing Inferring Recording data Communicating</p>		<p>Subject Integration:</p> <ul style="list-style-type: none"> • Art • Bible • Language • Math • Technology
<p>Unit 3: Energy in Motion Chapter 8: Electricity and Magnetism The students will:</p> <ul style="list-style-type: none"> • Recognize God’s use of man’s curiosity. 	<p>35–45 min. 5 days per</p>	<p>Read and discuss material in text. Use interactive and hands-on activities outlined in the</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages 193–214</p>	<ul style="list-style-type: none"> • Man’s finite knowledge • Man’s God-given curiosity

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<ul style="list-style-type: none"> • Explain what causes static electricity. • Identify the two things needed for an electric current to flow. • Describe the characteristics of conductors, resistors, and insulators. • Design and build an “unbreakable” circuit. • Experiment to test hypotheses. • Differentiate between parallel circuits and series circuits. • Distinguish among the three basic units of electrical measurement: volt, ampere, and watt. • Explain how a battery works. • Describe what happens to magnets at their poles. • Explain the relationship between magnetism and electricity. • Identify and describe the parts of a generator. • Explain how a generator works. • Research an inventor. • Present a speech honoring an inventor. • Identify ways to increase a wire’s magnetism. • Predict ways to strengthen an electromagnet. • Experiment to test predictions. • Explain the difference between electricity and electronics. • Identify the benefits of an integrated circuit. • Identify some of the parts of a computer. 	<p>week</p>	<p>Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Predicting Experimenting Observing Inferring Identifying and controlling variables Recording data Communicating</p>	<p><u>Student Text</u> Pages 183–204</p> <p><u>Activity Manual</u> Pages 115–130</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> • Man as steward of God’s creation • Man’s God-given dominion • God’s perfect design • God’s provision for His creation • Discerning what is true • Knowing God as greatest wisdom <p>Subject Integration:</p> <ul style="list-style-type: none"> • Bible • History • Language • Math
<p>Unit 3: Energy in Motion Chapter 9: Motion and Machines The students will:</p> <ul style="list-style-type: none"> • Recognize that only God can create energy. • Differentiate between speed and velocity. • Explain why a reference point is needed to observe motion. • Explain the relationship of mass and velocity 	<p>35–45 min. 5 days per week</p>	<p>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,</p>	<p><i>Science 6</i> (3rd edition)</p> <p><u>Teacher’s Edition</u> Pages 215–236</p> <p><u>Student Text</u> Pages 205–226</p>	<ul style="list-style-type: none"> • God as only Creator • Christ as a Christian’s reference point • Bible as final authority • Spirit-filled Christians

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<p>to momentum.</p> <ul style="list-style-type: none"> Identify Newton’s three laws of motion. Explain that both gravity and friction work against inertia. Plan a demonstration to illustrate the laws of motion. Experiment to show each of the laws of motion with toy cars. Identify the laws of motion in real-life situations. Design and make a model roller coaster. Discover relationships between slope, speed, and momentum. Explain that <i>work equals force times distance</i>. Differentiate among the three classes of levers. Describe a pulley, wheel and axle, inclined plane, wedge, and screw. Discern between a fixed pulley, a moveable pulley, and a block and tackle. Explain what a compound machine is. Experiment to show that an inclined plane reduces the amount of force needed to do work. Measure metrically in newtons and centimeters. Define operationally the results of the activity. 		<p>and individually.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Measuring Experimenting Making and using models Observing Inferring Recording data Communicating Defining operationally</p>	<p><u>Activity Manual</u> Pages 131–150</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> God’s orderly design God’s design of man’s body Results of unconfessed sin <p>Subject Integration:</p> <ul style="list-style-type: none"> Bible History Language Math Writing
<p>Unit 4: Beyond Our Earth Chapter 10: Stars The students will:</p> <ul style="list-style-type: none"> Understand the interrelationship of science concepts. Recognize God’s miraculous control over nature. Explain how stars produce their own light Distinguish between apparent magnitude and absolute magnitude of stars. 	<p>35–45 min. 5 days per week</p>	<p>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.</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages 237–264</p> <p><u>Student Text</u> Pages 227–252</p> <p><u>Activity Manual</u> Pages 151–164</p>	<ul style="list-style-type: none"> God’s use of creation for His purpose God overruling His natural laws God’s omniscience God’s use of creation for His glory God’s variety in

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<ul style="list-style-type: none"> • Recognize that stars are classified according to color. • Explain ways distance is measured in space. • Read a graph. • Differentiate between a pulsating variable star and an eclipsing variable star. • Describe the causes of a nova and of a supernova. • Explain how a neutron star or black hole is formed. • Identify various constellations. • Explain why a Christian should not be involved in astrology. • Describe the difference between a reflecting telescope and a refracting telescope. • Identify instruments used to study the stars. • Make a model of a constellation. • Recognize and name some star groups and constellations. • Plot points on a graph. • Recognize the relative distances of stars. • Identify how many stars are in a binary star group and in a multiple star group. • Differentiate between an open star cluster and a globular cluster. • Identify our galaxy as the Milky Way. • Recognize that our galaxy is part of a cluster of galaxies called the Local Group. • Describe asteroids, meteoroids, meteors, meteorites, and comets. • Read and use a star chart. • Identify objects in the night sky. • Measure mass and length. • Use a chart to record information. • Make and test predictions. 		<p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Measuring Making and using models Observing Identifying and controlling variables Recording data Communicating</p>	<p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<p>creation</p> <ul style="list-style-type: none"> • Man’s finite knowledge • Faith in the Word of God for guidance • God’s Word as the only true source of guidance • God’s omnipotence • God’s use of creation for His glory • God as Master of creation • Faith in the Word of God <p>Subject Integration:</p> <ul style="list-style-type: none"> • Bible • Geography • History • Language • Math • Technology • Writing
<p>Unit 4: Beyond Our Earth</p>	<p>35–45</p>	<p>Read and discuss material in</p>	<p><i>Science 6</i> (3rd edition)</p>	<ul style="list-style-type: none"> • God’s orderly

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<p>Chapter 11: Solar System The students will:</p> <ul style="list-style-type: none"> • Recognize that God’s creation is orderly. • Identify the parts of the Sun. • Describe the characteristics of a solar storm. • Explain why Earth experiences seasons. • Understand that the Sun’s gravitational pull keeps the planets in orbit. • Describe similarities among the inner planets. • Explain how man has gradually learned about the planets. • Identify characteristics of Mercury, Venus, and Mars. • Explain some ways God made Earth unique. • Describe why the same side of the Moon always faces the Earth. • Give details about the <i>Apollo 11</i> mission. • Describe the causes of solar and lunar eclipses. • Construct a solar oven that will melt a marshmallow. • Infer the relationship between materials and used results. • Identify characteristics of each of the outer planets. • Recognize that the <i>Voyager</i> probes have explored the outer planets. • Construct a scale model of the solar system. • Gain a greater understanding of the vastness of our solar system. • Explain how a rocket uses thrust to launch. • Define Newton’s third law of motion. • Distinguish between a satellite and a probe. • Design a travel brochure for a planet. • Collect data. • Hypothesize how design affects the 	<p>min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Measuring Making and using models Observing Inferring Identifying variables Recording data Communicating</p>	<p><u>Teacher’s Edition</u> Pages 265–294</p> <p><u>Student Text</u> Pages 253–278</p> <p><u>Activity Manual</u> Pages 165–182</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<p>design</p> <ul style="list-style-type: none"> • God’s perfect design • God’s provision for His creation • Christians as a reflection of God • God’s provision for His creation • God’s loving care • God’s orderly design • God’s omnipotence • God’s love for man • God’s salvation through Christ • God’s loving care <p>Subject Integration:</p> <ul style="list-style-type: none"> • Art • Bible • History • Language • Math • Technology • Writing

Sixth Grade: Science

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<p>performance of a balloon rocket.</p> <ul style="list-style-type: none"> Construct a balloon rocket. Demonstrate an understanding of Newton's third law of motion. 				
<p>Unit 5: God's Continuing Plan Chapter 12: Plant and Animal Reproduction The students will:</p> <ul style="list-style-type: none"> Understand the interrelationships of science concepts. Recognize that man's inferences are sometimes faulty. Explain the purpose for each part of a flower. Differentiate between pollination and fertilization. Explain how scientists classify fruits. Describe the process of germination. Measure the parts of a flower. Identify the parts of a flower. Explain how conifers reproduce. Compare and contrast seeds and spores. Identify some organisms that reproduce by spores. Recognize that animals begin as a single cell. Compare and contrast placental and marsupial gestation. Differentiate between the different types of eggs. Understand why some animals lay many eggs. Recognize the value that God places on life. Recognize that God provides eternal life. Identify some methods of asexual reproduction. Set up an experiment to observe and compare the rate of growth of a plant cutting and a seed. 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Hypothesizing Measuring Observing Recording data Communicating Defining operationally</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher's Edition</u> Pages 295–318 <u>Student Text</u> Pages 279–300 <u>Activity Manual</u> Pages 183–196</p> <p>Various instructional material as listed and specified in the Teacher's Edition</p>	<ul style="list-style-type: none"> The Bible as final authority God as Master of creation Man's finite knowledge God's provision for His creation God's plan for salvation God's love of beauty God's perfect design God's variety in creation God's value of life God's gift of eternal life <p>Subject Integration:</p> <ul style="list-style-type: none"> Bible Language Writing
<p>Unit 5: God's Continuing Plan</p>	<p>35–45</p>	<p>Read and discuss material in</p>	<p><i>Science 6</i> (3rd edition)</p>	<ul style="list-style-type: none"> God's plan for

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<p>Chapter 13: Heredity and Genetics The students will:</p> <ul style="list-style-type: none"> Recognize that a parent's acquired abilities are not part of inherited traits. Explain how chromosomes, DNA, and genes are related. Identify some learned and inherited traits. Take a survey of a sampling group. Graph recorded survey results. Identify the structure of a DNA molecule. Recognize James Watson and Francis Crick as those who identified DNA structure. Make a model of a DNA molecule. Identify ways DNA testing is used. Extract DNA from organic matter. Describe some of Mendel's experimental procedures. Explain some of Mendel's conclusions. Recognize the difference between dominant genes and recessive genes. Predict genetic probability using a Punnett square. Interpret a pedigree chart. Identify some sex-linked traits. Use Punnett squares to predict genotypes. Construct paper pets based on predicted genotypes. Identify and discuss some common genetic diseases and disorders. Explain why genetic diseases are not easy to cure. Name some examples of genetic engineering. 	<p>min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Making and using models Observing Inferring Collecting and interpreting data Communicating</p>	<p><u>Teacher's Edition</u> Pages 319–340</p> <p><u>Student Text</u> Pages 301–322</p> <p><u>Activity Manual</u> Pages 197–216</p> <p>Various instructional material as listed and specified in the Teacher's Edition</p>	<p>heredity</p> <ul style="list-style-type: none"> God's knowledge of each individual The Bible as final authority The Holy Spirit's guidance Honesty Identified in Christ God as Master of creation <p>Subject Integration:</p> <ul style="list-style-type: none"> Bible History Language Technology Writing
<p>Unit 6: Our Intricate Bodies Chapter 14: Nervous System The students will:</p> <ul style="list-style-type: none"> Recognize the interrelationship of science 	<p>35–45 min. 5 days per</p>	<p>Read and discuss material in text. Use interactive and hands-on activities outlined in the</p>	<p><i>Science 6</i> (3rd edition)</p> <p><u>Teacher's Edition</u> Pages 341–370</p>	<ul style="list-style-type: none"> God's perfect design God's design for man's body

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<p>concepts.</p> <ul style="list-style-type: none"> • Recognize that man’s inferences are sometimes inaccurate. • Identify the two main parts of the nervous system. • Describe the parts of the central nervous system. • List the four lobes of the cerebrum. • Differentiate among the functions of the three parts of the brain. • Identify the parts of a neuron. • Explain how neurons send messages. • Compare the two parts of the peripheral nervous system. • Describe how a reflex occurs. • Explore variables that affect reaction time. • Recognize how the five senses interact with the nervous system. • Read diagrams for information. • Identify the nerves associated with hearing, sight, and smell. • Explain how the different senses communicate with the brain. • Predict and identify areas of the body that are the most sensitive to touch. • Differentiate between short-term memory and long-term memory. • Identify two categories of long-term memory. • Describe some characteristics of REM sleep. • Compare the nervous system and the endocrine system. • Identify the function of some glands in the endocrine system. • Identify some common nervous system disorders. • Recognize some of the problems resulting 	<p>week</p>	<p>Teacher's Edition. Conduct Activities and Explorations with students as a class, in small groups, and individually.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Predicting Measuring Inferring Identifying and controlling variables Recording and interpreting data</p>	<p><u>Student Text</u> Pages 323–350</p> <p><u>Activity Manual</u> Pages 217–232</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> • God’s design of man’s body • Holy Spirit’s guidance • Faith in the Word of God • Man’s finite knowledge • God’s command to remember • Godly wisdom • Consequences of sin • Man’s body as God’s temple • Man’s responsibility to glorify God • Man’s sinful nature <p>Subject Integration:</p> <ul style="list-style-type: none"> • Bible • History • Language • Technology

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<p>from drug abuse.</p> <ul style="list-style-type: none"> Identify some common categories of drugs. Explain how some types of drugs affect the nervous system. List some biblical reasons for not taking drugs. 				
<p>Unit 6: Our Intricate Bodies Chapter 15: Immune System The students will:</p> <ul style="list-style-type: none"> Recognize that man’s inferences are sometimes inaccurate. Recognize that disease is a consequence of Adam’s sin. Explain how diseases are classified. Identify four common pathogens. List some diseases caused by each pathogen. List several ways that pathogens are spread. Differentiate between communicable diseases and noncommunicable diseases. Explain some of the jobs of an epidemiologist. Recognize how quickly pathogens can spread. Identify the source of contamination. Identify several defensive barriers of the body. List two of the body’s nonspecific defenses. Identify the body’s specific defense against pathogens. Explain some functions of white blood cells during the immune response. Explain three ways that the body can obtain immunity. Compare and contrast antibiotics and antibodies. Identify some problems that occur when the immune system malfunctions. Model the interactions between the immune system and pathogens. 	<p>35–45 min. 5 days per week</p>	<p>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.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion and review Individual and group projects Tests, quizzes, and rubrics</p> <p>Science Process Skills: Making and using models Observing Inferring Recording data Communicating Defining operationally</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages 371–392</p> <p><u>Student Text</u> Pages 351–372</p> <p><u>Activity Manual</u> Pages 233–240</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> God as Great Physician God’s omnipotence Consequences of sin God’s protection of His people God as Master of creation God’s omniscience God’s plan for man’s body Faith in the Word of God God’s perfect design Man’s sinful nature God’s power over sin <p>Subject Integration:</p> <ul style="list-style-type: none"> Bible Geography History Language Technology Writing

Unit Content and Objectives	Time	Methods, Activities, and Evaluation	Books and Materials	Biblical Integration/ Subject Integration
<ul style="list-style-type: none"> Research and write an article about a medical discovery. 				
<p>Technology Lessons The students will:</p> <ul style="list-style-type: none"> Explain what an autonomous underwater vehicle is. Explain the advantages of an underwater observatory. Identify some ways using an AUV may benefit studying the ocean. Explain how the spicules of a Rossella sponge are like optic fibers. Identify ways that studying a Rossella sponge may improve fiber optic technology. Recognize man’s duplication of God’s creation. Explain how electromagnets are used in maglev trains. Identify some ways a maglev train may benefit the environment and transportation. Describe some types of inflatable spacecraft. Understand the basics of inflatable technology. Explain the advantages of inflatable spacecraft. Identify characteristics of the thale cress. Explain how genetic engineering produces glowing plants. Recognize that scientists use the same basic methods that Mendel used. Compare robotic surgery with traditional surgery. Describe some advantages and disadvantages of long-distance robotic surgery. 	<p>35–45 min. 5 days per week</p>	<p>Read and discuss material in text. Use interactive and hands-on activities outlined in the Teacher's Edition.</p> <p>Evaluation Techniques: Activity Manual pages Classroom discussion</p>	<p><i>Science 6</i> (3rd edition) <u>Teacher’s Edition</u> Pages A4–A15</p> <p><u>Student Text</u> Pages–none</p> <p><u>Activity Manual</u> Pages 241–252</p> <p>Various instructional material as listed and specified in the Teacher’s Edition</p>	<ul style="list-style-type: none"> Spirit-filled Christians Bible as only authority Christians as lights in the world Man’s technology patterned after God’s creation God’s perfect design The Christian’s attraction to Christ The Christian’s hatred of sin Man as steward of God’s creation Attitudes as a reflection of a Christian’s walk Technology as a demonstration of man loving his neighbor as himself <p>Subject Integration:</p> <ul style="list-style-type: none"> History Math