Science 1 - 4th Edition  
Lesson Plan Overview

Unit 1: Let’s Learn About Science

Chapter 1: Science and Scientists

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 1 | 2–3 | 1 |  | * Identify and locate the key text features * Infer from key text features the topics of Unit 1 |
| 2 | 4–9 | 2–7 | 1–6 | Exploration: Looking at God’s World   * Infer from key features the topics for Chapter 1 * Define science * Explain from biblical truth why science is important BWS * Distinguish science activities from activities that are not science |
| 3 | 10–14 | 8–12 | 1–2, 5–8 | * Recall the word science * Infer the five senses and the body part used with each sense * Define senses * Identify the reason God gave people five senses BWS |
| 4 | 15–18 | 13–16 | 1–2,  9–11 | * Recall the reason God gave people five senses BWS * Describe what scientists do * Explain from the Bible the importance of what scientists do BWS * Create a list of ways that students can use science to help others * Classify an engineer as having a STEM career |
| 5–6 | 19–23 | 17–21 | 13–18 | * Define worldviewBWS * Identify that every scientist has a worldview BWS * Identify that God is the Creator of all things BWS * Identify that God designed everything to work together BWS * Identify that God made people in His own image to care for the earth BWS * Infer that people learn science to take care of the earth and to help others BWS |
| 7 | 24 | 1–21 | 1–18 | Review   * Recall terms and concepts from Chapter 1 |
| 8 | 25 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 1 |

Chapter 2: What Scientists Do

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 9 | 26–31 | 22–27 | 19–22 | * Recall what science is and what scientists do * Define *science process skill* * Observe an object using the five senses * Classify objects based on a chosen criteria * Measure an object using a non-standard unit * Classify science process skills as *observe, classify*, and *measure* |
| 10 | 32–34 | 28–30 | 23–26 | * Recall that the science process skills of observing, classifying, and measuring are ways people learn about God’s world BWS * Define inferenceas a science process skill * Infer the cause from an effect * Predict the outcome of a certain action * Define what a scientific predictionis * Identify communicateas a science process skill |
| 11 | 35–40 | 31–36 | 19, 27–28 | * Identify science tools and their uses * Measure length using non-standard and standard units * Infer reasons for using standard units of measurement * Explain how people learn about God’s world BWS * Explain from Genesis 1:28 why accurate measurement is important BWS |
| 12 | 41 | 37 | 29–32 | Exploration: Using Science Tools   * Measure objects using age-appropriate science tools * Record observations * Compare and contrast observations * Infer steps needed to determine accurate measurements |
| 13 | 42–46 | 38–42 | 33–36 | * Identify the purpose for an investigation * Identify the steps of the scientific method * Explain the purpose for the problem and hypothesis in a scientific investigation * Create a hypothesis |
| 14 | 47 | 43 | 37–38 | STEM Activity: How to Keep My Pencil on My Desk   * Recall what an engineer does * Identify the steps of the engineering design process * Apply the engineering design process to solve a real life problem * Relate the work of engineering to the commands of  Genesis 1:28 BWS |
| 15 | 48 | 22–43 | 19–38 | Review   * Recall terms and concepts from Chapter 2 |
| 16 | 49 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 2 |

Unit 2: Let’s Learn About Living Things

Chapter 3: Plants

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 17 | 50–59 | 44–53 | 39–42 | * Identify the characteristics of living and nonliving things * Classify items as living or nonliving * Identify the needs of plants * Identify ways people use plants * Explain from Genesis 3:17–18 how the Fall affected  plants BWS |
| 18 | 60–65 | 54–59 | 43–48 | * Identify each part of a plant and its function * Relate plant survival and growth to God’s creational  design BWS |
| 19 | 66 | 60 | 49–50 | Investigation: Plant Needs   * Predict the effects on the growth and survival of a plant when its needs are not met * Observe and describe parts of a plant * Draw a conclusion about plant needs (about the growth and survival of plants) based on observations * Draw a conclusion from the investigation about God’s creational design of plants BWS |
| 20 | 67–69 | 61–63 | 51 | * Define life cycle * Identify and describe the stages of the life cycle of a plant * Sequence stages of a plant’s life cycle |
| 21 | 70 | 64 | 39, 53–56 | * Compare and contrast a seedling with an adult plant * Explain that young plants are like the parent plants because God made plants to reproduce after their kind (Genesis 1:11) BWS * Compare and contrast the same kind of plant to show that they are recognized as similar but can also vary |
| 22 | 71 | 65 | 40, 57–58 | STEM Activity: Unwanted Plants   * Design a solution to prevent unwanted plants * Draw and label the design * Explain how the design solves the problem * Relate the growth of weeds and other unwanted plants to Genesis 3:17–18 and how the Fall affected plants BWS |
| 23 | 72 | 44–65 | 39–58 | Review   * Recall terms and concepts from Chapter 3 |

Chapter 4: Animals

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 25 | 74–79 | 66–71 | 59–61 | * Infer from key text features the topic for Chapter 4 * Distinguish the identity of living and nonliving things in an environment * Identify the needs of animals * Explain that God designed animals and their environments to work together so they can survive and grow BWS |
| 26 | 80–83 | 72–75 | 63–66 | * Identify external characteristics of mammals, birds, and fish * Classify animals as mammals, birds, and fish based on similar external characteristics * Classify a zoologist as a scientist |
| 27 | 84–87 | 76–79 | 67–68 | * Relate the function of animal body parts to the survival and growth of animals |
| 28 | 88–93 | 80–85 | 69–70 | * Identify and sequence the stages of the life cycle of an animal * Name ways that animals care for their offspring * Compare and contrast animals of the same kind * Compare and contrast animals and their offspring * Identify the Bible’s explanation for animal death BWS |
| 29 | 94–95 | 86–87 | 71–72 | STEM Activity: Copying God’s Design   * Identify a real-life human problem * Design a solution to a human problem by using biomimicry * Draw and label the design * Explain how the design solves the problem |
| 30 | 96 | 66–87 | 59–72 | Review   * Recall terms and concepts from Chapter 4 |
| 31 | 97 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 4 |

Unit 3: Let’s Learn About Our Bodies

Chapter 5: The Human Body

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 32 | 98–104 | 88–94 | 73–75 | * Infer the topic of the unit and the chapter based on the pictures and headings * Compare and contrast the needs of animals to the needs of people * Explain how God created the first man and woman BWS * Evaluate the statement that people are no different from animals BWS |
| 33 | 105 | 95 | 77–78 | Exploration: My Head   * Observe the human head * Identify body parts found on the head * Identify purposes for why God designed the body parts located on the head BWS * Associate each of four senses with the correct body part * Apply knowledge of a human body part to give praise to God BWS |
| 34 | 106–10 | 96–100 | 74, 79–80 | * Recall and describe the body parts of the head * Describe the head, arm, and leg * Label the head, arm, and leg * Explain ways that God’s design of the human outside body parts helps people survive and grow (Psalm 139:14) BWS |
| 35 | 111–16 | 101–6 | 73–74,  81–82 | * Describe the function of the brain, lungs, heart, stomach, bones, and muscles * Label the brain, lungs, heart, stomach, bones, and muscles on a diagram * Explain ways that God’s design of the human body parts helps people survive and grow BWS |
| 36 | 117 | 107 | 83–89 | Exploration: How My Lungs Work   * Assemble internal body parts to show location * Construct a model that shows how the lungs work * Explain ways that God’s design of the lungs helps people survive and grow BWS |
| 37 | 118 | 88–107 | 73–89 | Review   * Recall terms and concepts from Chapter 5 |
| 38 | 119 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 5 |

Chapter 6: Care for the Human Body

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 39 | 120–24 | 108–12 | 91–94 | * Identify kind and respectful behavior * Explain why we should treat other people with kindness and respect BWS * Formulate a plan to show how to treat another person with love, care, and respect BWS * Identify healthy habits for a strong body |
| 40 | 125–28 | 113–16 | 95–100 | * Identify ways to prevent the spread of germs * Identify healthy habits for strong teeth * Explain the importance of developing healthy habits * Practice healthy habits |
| 41 | 129 | 117 | 101–2 | Investigation: Clean Hands   * Formulate a hypothesis to determine the effect that washing hands has on germs * Record observations * Draw conclusions from data collected |
| 42 | 130–31 | 118–19 | 103 | * Identify safe habits when at play and in the car * Explain the importance of safe habits |
| 43 | 132–34 | 120–22 | 104–6 | * Identify safe habits at home and in the community * Identify fire hazards * Explain the proper response in an emergency * Identify trustworthy adults to go to in a dangerous situation |
| 44 | 135 | 123 | 107–8 | STEM Activity: Safe Shoes   * Propose a possible solution to the real-life problem of slick-soled shoes * Construct a design to solve the problem * Communicate to others how the design solves the problem |
| 45 | 136 | 108–23 | 91–108 | Review   * Recall terms and concepts from Chapter 6 |
| 46 | 137 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 6 |

Unit 4: Let’s Learn About Earth and Space

Chapter 7: The Earth and Its Lights

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 47 | 138–44 | 124–30 | 109, 111 | * Infer topics by previewing the unit and chapter * Explain from Genesis 1 how the earth, sun, moon, and stars were formed BWS * Evaluate from the Bible an opposing view of how the earth, sun, moon, and stars formed BWS |
| 48 | 145–49 | 131–35 | 113–14 | * Describe the earth’s daily motion * Identify the sun as a star * Identify the beneficial properties of the sun * Explain from Genesis 1 why God made the sun BWS * Describe and predict the sun’s pattern across the sky |
| 49 | 150 | 136 | 115–16 | Investigation: Stars in the Day   * Formulate a hypothesis for why it is hard to see stars during the daytime * Observe simulated stars in various lighting * Infer why it is hard to see stars, other than our sun, during the daytime |
| 50 | 151–53 | 137–39 | 117 | * Identify the characteristics of stars other than the sun * Identify the telescope as a magnifying tool to observe stars other than the sun * Identify the groups of stars called the Big Dipper and the Little Dipper * Identify the North Star |
| 51–52 | 154–58 | 140–44 | 109,  119–22 | * Identify the characteristics of the moon * Identify what an astronaut does * Identify the changes in the shape of the moon over the course of a month * Predict the phases of the moon over the course of a month * Explain from Genesis 1 why God made the moon BWS * Explain how the sky changes each day |
| 53 | 159 | 145 | 123–27 | Exploration: Changes in the Sky   * Compare and contrast the nighttime sky with the daytime sky * Predict the moon’s phase * Infer the cause for the changes in the sky each day * Apply our knowledge of the earth, sun, moon, and stars to praising God for His greatness and goodness BWS |
| 54 | 160 | 124–45 | 109–27 | Review   * Recall terms and concepts from Chapter 7 |
| 55 | 161 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 7 |

Chapter 8: Seasons

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 56 | 162–67 | 146–51 | 131–34 | * Recall that the earth rotates once each day * Identify that the earth revolves around the sun * Identify that one complete revolution around the sun is equal to one year * Identify the two things that cause the seasons * Sequence the cycle of the seasons |
| 57 | 168 | 152 | 135–36 | Exploration: Using a Thermometer   * Recall two things that cause the seasons * Recall the thermometer as a scientific tool used to measure temperature * Relate the movement of the red line on the thermometer to changes in temperature * Measure temperature to record information * Record temperature using a thermometer |
| 58 | 169–70 |  | 137–40 | * Recall the cycle of the seasons by singing a song * Compare and contrast temperature and amount of daylight among the seasons * Infer the temperature and length of daylight hours for each season |
| 59 | 171–75 | 153–57 | 129,  141–42 | * Recall the cycle of seasons by singing a song * Explain, using Scripture, that seasonal patterns exist by God’s design BWS * Identify characteristics of winter and spring |
| 60 | 176–80 | 158–62 | 129,  141–44 | * Recall the cycle of seasons by singing a song * Explain what a landscape architect does * Identify characteristics of summer and fall * Defend, using Scripture, that seasonal patterns exist by God’s design BWS |
| 61 | 181 | 163 | 145–51 | Exploration: Seasons Where I Live   * Compare and contrast the characteristics of seasons with the seasons in your area * Communicate by constructing a booklet that represents the seasons in your area |
| 62 | 182 | 146–63 | 129–51 | Review   * Recall terms and concepts from Chapter 8 |
| 63 | 183 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 8 |

Chapter 9: Weather

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 64 | 184–91 | 164–71 | 154–58 | * Define weather * Recall what temperature is * Recall the scientific tool that measures temperature * Define wind * Identify the appearance of a flag when the wind is calm, light, and strong |
| 65 | 192–95 | 172–75 | 153,  159–60 | * Define water cycle * Sequence the movement of water in the water cycle * Identify the appearance of the sky on clear, partly cloudy, and cloudy days * Identify types of precipitation * Explain how the weather changes from day to day |
| 66 | 196–97 | 176–77 | 154,  161–65 | * Define meteorologist * Explain what a meteorologist does * Contrast the trustworthiness of Bible promises with the trustworthiness of scientific predictions BWS * Evaluate the statement that science gives us the most trustworthy information about our world BWS * Practice using tools of a meteorologist |
| 67–68 | 198–99 | 178–79 | 153,  167–73 | Exploration: Weather Watching   * Recall what a weather prediction is * Infer from Proverbs 22:3 that weather predictions help us to prepare for the future BWS * Observe, collect, record, and report weather data using tools of a meteorologist * Identify weather patterns in data collected to predict the weather * Compare and contrast weather predictions with actual observations |
| 69 | 200 | 164–79 | 153–73 | Review   * Recall terms and concepts from Chapter 9 |
| 70 | 201 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 9 |

Unit 5: Let’s Learn About Energy

Chapter 10: Light

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 71 | 202–10 | 180–88 | 175–78 | * Identify what energy is * Identify light as energy * Defend, using Scripture, the statement that God created  light BWS * Describe sources of light as natural or manmade * Identify cause-and-effect energy relationships |
| 72 | 211 | 189 | 179–81 | Investigation: Observing Light   * Predict the amount of light that travels through different objects * Record observations * Graph data from observations * Draw conclusions from the data |
| 73 | 212–17 | 190–95 | 183–85 | * Differentiate between objects that are transparent, translucent, and opaque * Recognize that a shadow forms when light is blocked * Explain that a shadow changes when a light source moves |
| 74 | 218 | 196 | 187–89 | Investigation: Illuminate Objects   * Predict whether objects can be seen if light is available to illuminate them or if they give off their own light * Observe objects in a pinhole box * Infer that objects can be seen if light is available to illuminate them or if they give off their own light |
| 75 | 219–21 | 197–99 | 191–92 | * Recall that objects can be seen if light is available to illuminate them or if they give off their own light * Identify that light travels in a straight line * Infer that mirrors reflect light |
| 76 | 222 | 180–99 | 175–92 | Review   * Recall terms and concepts from Chapter 10 |
| 77 | 223 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 10 |

Chapter 11: Sound

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 78 | 224–27 | 200–203 | 195–96 | * Recall hearing as one of the five senses * Identify sound as a form of energy * Identify sound as a vibration that can be heard * Infer different ways sound can be made |
| 79 | 228–31 | 204–7 | 193,  197–98 | * Identify that sound travels in waves * Observe that sound travels in all directions * Observe that sound travels through matter * Relate sound and the human ear to God’s creational design BWS * Relate sound to the vibration of materials |
| 80 | 232–35 | 208–11 | 199–200 | * Identify the characteristics of volume * List examples of loud and soft sound * Identify the characteristics of pitch * List examples of sound with high and low pitch * Explain two ways that sound changes |
| 81 | 236 | 212 | 201–3 | Investigation: Hearing Pitch   * Formulate a hypothesis for how the thickness of a rubber band will affect pitch * Measure with numbers the length of a stretched rubber band * Observe that the pitch of a sound is affected by the thickness of a rubber band when the rubber band is plucked * Infer that the thickness of a rubber band influences the pitch of the sound the rubber band produces * Explain how the pitch of a stringed instrument can be changed |
| 82 | 237 | 213 | 205–6 | STEM Activity: Making Music   * Design a musical instrument with four strings of varying pitch * Draw and label the design of the stringed musical instrument * Make a model of the stringed musical instrument * Test and improve the stringed instrument model * Explain how the design of the musical instrument solved the problem of having four strings of varying pitch |
| 83 | 238 | 200–213 | 193–206 | Review   * Recall terms and concepts from Chapter 11 |
| 84 | 239 |  |  | Assessment   * Recall and apply terms and concepts from Chapter 11 |

Chapter 12: Communicating with Light and Sound

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| Lesson | Teacher Edition | Student Edition | Activities | Objectives |
| 85 | 240–47 | 214–21 | 208–13 | * Identify ways light and sound are used to communicate at home and school * Explain how various sources of light and sound communication at home and school can be used to help people BWS * Explain how to determine whether light and sound communication is good or bad BWS * Evaluate uses of light and sound communication BWS |
| 86 | 248–51 | 222–25 | 208–10, 213–16 | * Identify ways light and sound are used in the community to communicate * Explain how various sources of light and sound communication in the community can be used to help other people BWS * Explain how to determine whether light or sound communication is good or bad BWS * Evaluate uses of light and sound communication BWS |
| 87 | 252 | 226 | 217–20 | STEM Activity: Helping with Light or Sound   * Propose possible solutions to a real-life problem using light or sound * Draw a design that uses light or sound to solve a real-life problem * Communicate to others how the design solves the problem |
| 88–89 | 253–60 | 227–34 | 13,  207–10,  221–22 | * Recall what a worldview is * Summarize from the Bible where the world came from BWS * Construct a response explaining why things work the way they do in our world BWS * Determine who we are and why we are here BWS * Compare and contrast the importance of science with the importance of the Bible BWS |
| 90 | 261 | 235 | 208–9, 223–24 | Exploration: A Song of Praise   * Create a song of praise for God’s creation BWS * Formulate a sentence explaining how the song of praise will be used BWS * Explain how to determine whether the words of the song of praise are good or bad BWS |