Lesson Plan Overview

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
1	1–3	1–3	1	Define worldview List characteristics of a Christian worldview Apply a Christian worldview to science	
		C	hanter	1: Cold-Blooded Animals	
2	4–9	4–9	3–5	Recognize that knowledge is needed to care for animals	
				Understand that scientists group animals with similar characteristics	
				Differentiate between invertebrates and vertebrates	
				Differentiate between warm-blooded and cold- blooded vertebrates	
				People as stewards of God's creation	
				God's variety in creation	
				God's design of cold-blooded vertebrates	
3	10–13	10–13	4, 6–8	Name three groups of cold-blooded vertebrates	
				List common characteristics of fish	
				God's design of fish	
4	44.45	44.45	4.0.44	God's power over creation	
4	14–15	14–15	4, 9, 11, 13	Name three kinds of amphibians Identify characteristics of amphibians	
				Sequence and describe the stages of frog metamorphosis	
5	16–19	16–19	4, 15,	Identify characteristics of reptiles	
			17–18	Differentiate between reptiles and amphibians	
				Understand that God gave people the job to manage animals	
				God's omnipotence	
				God's variety in creation	
				People as stewards of God's creation	
6	20–21	20–21	19–20	Measure Up: Temperature	Measuring
				Identify that scientists use Celsius thermometers to measure temperature	
				Demonstrate how to use and read a	
				thermometer	
				Write about the characteristics used to identify	
				a cold-blooded animal	
7	22–23		21–22	Apply knowledge to everyday situations Science Skill: A Science Experiment	Predicting
,	<i>LL</i> - <i>L</i> 0		L1-LL	Use a scientific method	Observing
					Measuring
					Inferring
8	24–25	22–23	23–24	Activity: Leaping Lizards	Measuring
				Use a thermometer to measure temperature	Inferring
				Infer how a cold-blooded animal depends on	
				the temperature of its environment	

			People as stewards of God's creation	
9	26	25–26	Chapter Review	
			Recall concepts and terms from Chapter 1	
10	27		Chapter 1 Test	
			Demonstrate knowledge of concepts taught in	
			Chapter 1	

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	Chapter 2: Warm-Blooded Animals								
11	28–31	24–27	27	Recognize that people are different from animals Identify groups of warm-blooded animals Exploration: Bird Watching Make a bird feeder Observe birds at a bird feeder People as God's image-bearers					
12	32–35	28–31	29–32	List characteristics of birds List ways to identify birds God's design of birds God's provision for His creation					
13–14	36–42	32–38	29, 33–36	Identify characteristics of mammals Describe ways to identify mammals Identify a mammal from each group Describe how humans are different from mammals Explain why people need to understand warm-blooded animals God's provision for His creation God's variety in creation People as God's image-bearers					
15	43–45	39–41	37–40	People as stewards of God's creation Differentiate between learned behaviors and instincts Understand that instincts are given by God Write reasons for classifying a marine mammal and characteristics of the environment it needs God's provision for His creation God's power over His creation God's use of creation for His glory					
16	46–47	42–43		Activity: Animal Books Research information about three vertebrates Classify animals as fish, amphibians, reptiles, birds, or mammals Communicate information to others	Communicating Classifying				
17	48 49		41–42	Chapter Review Recall concepts and terms from Chapter 2 Chapter 2 Test					
18	49			Chapter 2 Test Demonstrate knowledge of concepts taught in Chapter 2					

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Chapter 3: Plants							
19	50–53	44–47	43–44	Recognize that using plants is part of managing the earth Compare how plants and animals get their nutrients Describe the function of each part of a plant People as stewards of God's creation God's provision for His creation			
20	54–57	48–51	45–46	 Use a diagram to describe the process of photosynthesis Describe three things plants need for photosynthesis Describe two things plants produce during photosynthesis God's perfect design God's provision for His creation 			
21	58–59	52–53	47	Measure Up: Length Identify the metric unit for measuring length and distance Demonstrate the use of a centimeter ruler and meter stick	Measuring		
22	60–61	54–55	49–50	Activity: A Place to Grow • Demonstrate the use of a centimeter ruler • Recognize the importance of sunlight for plant growth People as stewards of God's creation	Measuring Observing		
23	62–65	56–59	51–52	 Identify parts of plants that are eaten Identify ways God created plants to be used by animals and people Write about two reasons why photosynthesis is important to people and animals God's provision for His creation People as stewards of God's creation God's perfect design People's use of science to glorify God 			
24	66		53–54	Chapter Review Recall concepts and terms from Chapter 3			
25	67			Chapter 3 Test • Demonstrate knowledge of concepts taught in Chapter 3			

Lesson	Teacher's	Student	Activity	Objectives and Biblical Worldview	Process Skills
	Edition	Text	Manual		
				apter 4: Ecosystems	
26	68–73	60–65	55–57	Recognize that the Fall was an event that changed the earth Identify three characteristics of living things Describe how an ecosystem, environment, population, habitat, and community relate to one another Effects of the Fall People's need for salvation	
27	74–77	66–69	59–60	 Describe how producers, consumers, and decomposers get their energy from the sun Differentiate between producers, consumers, and decomposers Identify herbivores, omnivores, and carnivores as types of consumers and describe what they eat People as stewards of God's creation 	
28	78–81	70–73	61–62	Contrast a food chain and a food web Read food webs to understand how energy moves through an ecosystem Explain what happens when one part of a food web changes	
29	82–85	74–77	63–65	Summarize how Adam's sin at the Fall affected life on the earth Name causes of change in an ecosystem Understand that God created living things with the ability to adapt to their environments Recognize that in an ecosystem the number and types of living things depend on their needs being met Write how a living thing can affect its ecosystem God's perfect design God's provision for His creation God's power over His creation People's need for salvation People as stewards of God's creation	
30	86–87	78–79		Activity: Ecosystem Tag • Model predator and prey relationships • Infer changes in population sizes	Inferring Predicting
31	88		67–68	Chapter Review • Recall concepts and terms from Chapter 4	
32	89			Chapter 4 Test Demonstrate knowledge of concepts taught in Chapter 4	

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	Chapter 5: Matter								
33	90–93	80–83	69–70	 Recognize that knowledge is needed to use matter Identify several physical properties of matter Explain the difference between mass and volume People as stewards of God's creation 					
34	94–96	84–86	71–72	Measure Up: Mass Identify units used to measure mass Demonstrate how to measure mass using a balance Measure Up: Volume Identify units used to measure volume Demonstrate how to measure volume in graduated containers Christians as honest workers	Measuring				
35	97–99	87–89	73–74	Activity: Which Kind of Matter? Observe properties of different kinds of matter Infer classifications of matter based on properties	Observing Inferring				
36	100–103	90–93	73, 75–78	 Identify the three states of matter Compare and contrast the properties of solids, liquids, and gases 					
37–38	104–9	94–99	79	 Recognize that matter changes states Describe how heating and cooling can cause matter to change states Describe the three states of water Contrast water with other forms of matter Explain what the moisture on a window is called and why it is there God never changes 					
39	110–13	100–103	81–84	 Compare and contrast physical changes and chemical changes Identify examples of physical and chemical changes Explain how people can use matter to serve God and other people People as stewards of God's creation Christians' use of science to show God's love to others 					
40	114		85–86	Chapter Review • Recall concepts and terms from Chapter 5					
41	115			Chapter 5 Test Demonstrate knowledge of concepts taught in Chapter 5					

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				Chapter 6: Sound	
42	116–21	104–9	87–88	Recognize that learning about sound can help us use it to glorify God Describe causes of sound Identify causes of sound vibrations God's creation for the use and enjoyment of people Christians' use of science to show God's love to others	
43	122–25	110–13	89–90	Explain how sound travels in waves Describe how the state of matter affects the speed of sound waves traveling through it Describe the types of surfaces that reflect or absorb sound waves People's listening and being obedient to God's Word	
44	126–29	114–17	91, 93–94	Describe characteristics of pitch, volume, and quality Write why some bells have higher pitches than others Activity: Musical Jars Predict and test how the amount of air in a jar affects its pitch	Predicting Measuring
45	130–32	118–20	95	Identify the three main parts of the ear Describe the functions of the three main parts of the ear God as Creator God's perfect design	
46	133	121		Exploration: All Ears Make a model of the ear Demonstrate knowledge of parts of the ear	
47	134–35	122–23	97–98	Describe how the sounds you make can glorify God Recognize the need to keep ears safe and healthy People's responsibility to glorify God People as stewards of God's creation People's use of science to honor God	
48	136		99–100	Chapter Review Recall concepts and terms from Chapter 6	
49	137			Chapter 6 Test • Demonstrate knowledge of concepts taught in Chapter 6	

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	er 7: Energy in Motion				
50	138–43	124–29	101–2	Recognize that learning about friction can help us use it in better ways Describe what causes an object to move List three kinds of invisible forces Describe three kinds of invisible forces Identify weight as the measurement of the force of gravity People's use of science to honor God People as stewards of God's creation	
51	144–45	130–31	103–4	Activity: Friction Fun Test several surfaces to compare which has the most friction Observe and measure the distances that a ball rolls on different surfaces People's use of science to honor God People as stewards of God's creation	Observing Measuring
52	146–47	132–33	105–6	Demonstrate the motion of an object List three ways to describe the motion of an object	
53	148–51	134–37	107–9	 Identify five things that can do work List examples of five things that can do work Write how forces help us work better, using the example of a wheelbarrow 	
54	152–55	138–41	111–12	Identify six kinds of energy List examples for each kind of energy Recognize that energy can change from one form to another People's use of science to honor God People as stewards of God's creation Sin changed God's world God's provision for redemption	
55	156		113–14	Chapter Review Recall concepts and terms from Chapter 7	
56	157			Chapter 7 Test Demonstrate knowledge of concepts taught in Chapter 7	

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		Cha	apter 8	: Soil, Rocks, and Minerals	
57	158–62	142–46	115–16	Recognize that people were made in God's image Recognize that God wants you to show His love to other people Describe the four things that make up the soil Describe the three main layers of soil People are God's image-bearers Christians' use of science to show God's love to others Sin changed God's world People as stewards of God's creation	
58	163-64	147–48	117–18	Recognize that the surface of the earth is always changing Identify four causes of weathering Explain how water and wind weather rocks Explain how ice and plants weather rocks Write about why soil that was once covered with trees will be good for growing crops	
59–60	165–69	149–53	119–21	Identify how rocks are classified Describe the three groups of rocks Describe some of the results of the Flood that we can see Identify the evidence that supports the worldwide Flood	
61	170–73	154–57	123–24	Recognize that rocks are made of minerals Describe how the knowledge of minerals can be useful List four characteristics that can be used to identify a mineral Christians show God's love to others People as stewards of God's creation	
62	174–75	158–59	125–28	Activity: Hard or Soft • Predict the hardness of several minerals • Test the hardness of several minerals	Predicting Inferring
63	176		129–30	• Recall concepts and terms from Chapter 8	
64	177			Chapter 8 Test • Demonstrate knowledge of concepts taught in Chapter 8	

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				hapter 9: Weather		
65	178–82	160–64	131, 133–34	 Recognize that God is in control of weather Identify the reason why weather should be studied Recall that all weather takes place in the atmosphere Explain what a meteorologist does Recognize that a weather map provides data for making weather forecasts People as stewards of God's creation Christians' use of science to show God's love to others God's control of His creation God's perfect design 		
66	183–88	165–70	135–38	 Explain how measuring weather can help you Identify four forms of precipitation Describe and label parts of the water cycle Name a tool used to measure precipitation Describe clues about weather that clouds give us God's perfect design God's control of His creation 		
67	189–91	171–73	139–40	 Name a tool used to measure temperature Explain what causes wind Identify tools used for measuring wind God's control of His creation 		
68	192–93	174–75	141, 143–44	Activity: Weather Watcher Observe local weather and record weather data Notice patterns in recorded weather data	Inferring Observing	
69	194–95	176–77	145, 147–48	 Differentiate between types of severe weather Determine how to be safe during severe weather List two things that should be part of a family severe weather plan Write about the clues weather observations can give and some related weather tools used by meteorologists God's Word provides comfort Christians' use of science to show God's love to others 		
70	196		149–50	Chapter Review Recall concepts and terms from Chapter 9		
71	197			Chapter 9 Test Demonstrate knowledge of concepts taught in Chapter 9		

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		er 10: The Solar System			
72	198–203	178–83	151–53, 155	Recognize that God uniquely designed Earth for life Recognize that objects in the sky have patterns of motion Describe and differentiate between revolution and rotation Identify what causes years and days Activity: Solar Mobile Prepare a solar system mobile God as Creator God's perfect design	Classifying Communicating
73	204–7	184–87	157	 Describe characteristics of the sun Describe how the sun is important for Earth Recognize that a constellation is a pattern of stars Describe what an astronomer does People's use of science to help others 	
74	208–11	188–91	159, 161–62	 Identify Mercury as the smallest planet and the one closest to the sun Identify Venus as the hottest planet and the one covered with clouds Identify Earth as the only planet with liquid water and an atmosphere that allows life Identify Mars as the red planet Write an explanation of ways that God perfectly designed Earth for living things God as Creator God's perfect design 	
75	212–17	192–97	163, 165–66	 Identify characteristics of Jupiter, Saturn, Uranus, and Neptune List the planets in order from the sun outward Describe what asteroids are and where they can be found Name three dwarf planets God's use of creation for His glory 	
76	218		167–68	Chapter Review Recall concepts and terms from Chapter 10	
77	219			Chapter 10 Test Demonstrate knowledge of concepts taught in Chapter 10	

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		Char	oter 11:	Cells, Tissues, and Organs	
78	220–23	198–201	169	Recognize the interrelationship of science concepts Recognize that God knows all about us even before we are born Recognize that a microscope is a tool that magnifies tiny things Understand that all living things are made of cells Describe how cells got their name God as Creator People's use of science to help others	
79	224–27	202–5	171, 173–74	Recognize a cell as the smallest living part of a living thing Describe characteristics of cells Identify an amoeba as a single-celled creature Label the main parts of a plant cell Identify the main difference between an animal cell and a plant cell	
80	228–29	206–7	175–76	Activity: Edible Cell Make a model of an animal cell Identify the parts of a cell Communicate information about the model	Communicating Inferring
81	230–33	208–11	177–79, 181–82	Identify and describe the four main kinds of tissues Recognize that the lungs, heart, stomach, and brain are organs Explain why it is important to know how the parts of the body work Write how cells, tissues, and systems are related to each other God's design of our bodies Christians working together	
82	234		183–84	Chapter Review Recall concepts and terms from Chapter 11	
83	235			Chapter 11 Test • Demonstrate knowledge of concepts taught in Chapter 11	

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Chapter 12: Skin					
84	236–41	212–17	185–87	 Recognize that the skin is the largest organ in the body Identify the two layers of skin Recognize that new skin cells are made in the epidermis Explain why the epidermis is important to the body People as God's image-bearers People as stewards of God's creation Sin caused God's world to change 	
85	242–45	218–21	189–91, 193–95	Recognize that the ridges on fingertips provide friction to grip things Explain ways that fingerprints are useful Activity: Patterns on My Skin Make and classify fingerprint patterns	Classifying Observing
86	246–50	222–26	197	 Describe the parts of the dermis Explain the functions of nerves, blood vessels, sweat glands, and oil glands in the dermis Describe two ways the body is cooled Write about why skin may or may not bleed when scraped God's perfect design 	
87	251	227		Exploration: Under My Skin • Make a model of the parts of the skin	
88	252–53	228–29	199–200	Explain why caring for our bodies is important Explain two ways that keeping clean is important God's perfect design	
89	254		201–2	Chapter Review Recall concepts and terms from Chapter 12	
90	255			Chapter 12 Test • Demonstrate knowledge of concepts taught in Chapter 12	