

Lesson Plan Overview

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
1	1-3	1-3	1	<ul style="list-style-type: none"> Define <i>worldview</i> List characteristics of a Christian worldview Apply a Christian worldview to science 	
Chapter 1: Cold-Blooded Animals					
2	4-9	4-9	3-5	<ul style="list-style-type: none"> 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 <p><i>People as stewards of God's creation</i> <i>God's variety in creation</i> <i>God's design of cold-blooded vertebrates</i></p>	
3	10-13	10-13	4, 6-8	<ul style="list-style-type: none"> Name three groups of cold-blooded vertebrates List common characteristics of fish <p><i>God's design of fish</i> <i>God's power over creation</i></p>	
4	14-15	14-15	4, 9, 11, 13	<ul style="list-style-type: none"> Name three kinds of amphibians Identify characteristics of amphibians Sequence and describe the stages of frog metamorphosis 	
5	16-19	16-19	4, 15, 17-18	<ul style="list-style-type: none"> Identify characteristics of reptiles Differentiate between reptiles and amphibians Understand that God gave people the job to manage animals <p><i>God's omnipotence</i> <i>God's variety in creation</i> <i>People as stewards of God's creation</i></p>	
6	20-21	20-21	19-20	<p>Measure Up: Temperature</p> <ul style="list-style-type: none"> 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 Apply knowledge to everyday situations 	Measuring
7	22-23		21-22	<p>Science Skill: A Science Experiment</p> <ul style="list-style-type: none"> Use a scientific method 	Predicting Observing Measuring Inferring
8	24-25	22-23	23-24	<p>Activity: Leaping Lizards</p> <ul style="list-style-type: none"> Use a thermometer to measure temperature Infer how a cold-blooded animal depends on the temperature of its environment 	Measuring Inferring

				<i>People as stewards of God's creation</i>	
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	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 2: Warm-Blooded Animals					
11	28–31	24–27	27	<ul style="list-style-type: none"> • Recognize that people are different from animals • Identify groups of warm-blooded animals Exploration: Bird Watching <ul style="list-style-type: none"> • Make a bird feeder • Observe birds at a bird feeder <i>People as God's image-bearers</i>	
12	32–35	28–31	29–32	<ul style="list-style-type: none"> • List characteristics of birds • List ways to identify birds <i>God's design of birds</i> <i>God's provision for His creation</i>	
13–14	36–42	32–38	29, 33–36	<ul style="list-style-type: none"> • 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 <i>God's provision for His creation</i> <i>God's variety in creation</i> <i>People as God's image-bearers</i> <i>People as stewards of God's creation</i>	
15	43–45	39–41	37–40	<ul style="list-style-type: none"> • 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 <i>God's provision for His creation</i> <i>God's power over His creation</i> <i>God's use of creation for His glory</i>	
16	46–47	42–43		Activity: Animal Books <ul style="list-style-type: none"> • Research information about three vertebrates • Classify animals as fish, amphibians, reptiles, birds, or mammals • Communicate information to others 	Communicating Classifying
17	48		41–42	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 2 	
18	49			Chapter 2 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 2 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 3: Plants					
19	50–53	44–47	43–44	<ul style="list-style-type: none"> • 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 <i>People as stewards of God's creation</i> <i>God's provision for His creation</i>	
20	54–57	48–51	45–46	<ul style="list-style-type: none"> • Use a diagram to describe the process of photosynthesis • Describe three things plants need for photosynthesis • Describe two things plants produce during photosynthesis <i>God's perfect design</i> <i>God's provision for His creation</i>	
21	58–59	52–53	47	Measure Up: Length <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Demonstrate the use of a centimeter ruler • Recognize the importance of sunlight for plant growth <i>People as stewards of God's creation</i>	Measuring Observing
23	62–65	56–59	51–52	<ul style="list-style-type: none"> • 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 <i>God's provision for His creation</i> <i>People as stewards of God's creation</i> <i>God's perfect design</i> <i>People's use of science to glorify God</i>	
24	66		53–54	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 3 	
25	67			Chapter 3 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 3 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 4: Ecosystems					
26	68–73	60–65	55–57	<ul style="list-style-type: none"> 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 <i>Effects of the Fall</i> <i>People's need for salvation</i>	
27	74–77	66–69	59–60	<ul style="list-style-type: none"> 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 <i>People as stewards of God's creation</i>	
28	78–81	70–73	61–62	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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 <i>God's perfect design</i> <i>God's provision for His creation</i> <i>God's power over His creation</i> <i>People's need for salvation</i> <i>People as stewards of God's creation</i>	
30	86–87	78–79		Activity: Ecosystem Tag <ul style="list-style-type: none"> Model predator and prey relationships Infer changes in population sizes 	Inferring Predicting
31	88		67–68	Chapter Review <ul style="list-style-type: none"> Recall concepts and terms from Chapter 4 	
32	89			Chapter 4 Test <ul style="list-style-type: none"> Demonstrate knowledge of concepts taught in Chapter 4 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 5: Matter					
33	90–93	80–83	69–70	<ul style="list-style-type: none"> Recognize that knowledge is needed to use matter Identify several physical properties of matter Explain the difference between mass and volume <i>People as stewards of God's creation</i>	
34	94–96	84–86	71–72	Measure Up: Mass <ul style="list-style-type: none"> Identify units used to measure mass Demonstrate how to measure mass using a balance Measure Up: Volume <ul style="list-style-type: none"> Identify units used to measure volume Demonstrate how to measure volume in graduated containers <i>Christians as honest workers</i>	Measuring
35	97–99	87–89	73–74	Activity: Which Kind of Matter? <ul style="list-style-type: none"> Observe properties of different kinds of matter Infer classifications of matter based on properties 	Observing Inferring
36	100–103	90–93	73, 75–78	<ul style="list-style-type: none"> Identify the three states of matter Compare and contrast the properties of solids, liquids, and gases 	
37–38	104–9	94–99	79	<ul style="list-style-type: none"> 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 <i>God never changes</i>	
39	110–13	100–103	81–84	<ul style="list-style-type: none"> 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 <i>People as stewards of God's creation</i> <i>Christians' use of science to show God's love to others</i>	
40	114		85–86	Chapter Review <ul style="list-style-type: none"> Recall concepts and terms from Chapter 5 	
41	115			Chapter 5 Test <ul style="list-style-type: none"> Demonstrate knowledge of concepts taught in Chapter 5 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 6: Sound					
42	116–21	104–9	87–88	<ul style="list-style-type: none"> • Recognize that learning about sound can help us use it to glorify God • Describe causes of sound • Identify causes of sound vibrations <i>God's creation for the use and enjoyment of people</i> <i>Christians' use of science to show God's love to others</i>	
43	122–25	110–13	89–90	<ul style="list-style-type: none"> • 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 <i>People's listening and being obedient to God's Word</i>	
44	126–29	114–17	91, 93–94	<ul style="list-style-type: none"> • Describe characteristics of pitch, volume, and quality • Write why some bells have higher pitches than others Activity: Musical Jars <ul style="list-style-type: none"> • Predict and test how the amount of air in a jar affects its pitch 	Predicting Measuring
45	130–32	118–20	95	<ul style="list-style-type: none"> • Identify the three main parts of the ear • Describe the functions of the three main parts of the ear <i>God as Creator</i> <i>God's perfect design</i>	
46	133	121		Exploration: All Ears <ul style="list-style-type: none"> • Make a model of the ear • Demonstrate knowledge of parts of the ear 	
47	134–35	122–23	97–98	<ul style="list-style-type: none"> • Describe how the sounds you make can glorify God • Recognize the need to keep ears safe and healthy <i>People's responsibility to glorify God</i> <i>People as stewards of God's creation</i> <i>People's use of science to honor God</i>	
48	136		99–100	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 6 	
49	137			Chapter 6 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 6 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 7: Energy in Motion					
50	138-43	124-29	101-2	<ul style="list-style-type: none"> • 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 <p><i>People's use of science to honor God</i> <i>People as stewards of God's creation</i></p>	
51	144-45	130-31	103-4	<p>Activity: Friction Fun</p> <ul style="list-style-type: none"> • Test several surfaces to compare which has the most friction • Observe and measure the distances that a ball rolls on different surfaces <p><i>People's use of science to honor God</i> <i>People as stewards of God's creation</i></p>	Observing Measuring
52	146-47	132-33	105-6	<ul style="list-style-type: none"> • Demonstrate the motion of an object • List three ways to describe the motion of an object 	
53	148-51	134-37	107-9	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • Identify six kinds of energy • List examples for each kind of energy • Recognize that energy can change from one form to another <p><i>People's use of science to honor God</i> <i>People as stewards of God's creation</i> <i>Sin changed God's world</i> <i>God's provision for redemption</i></p>	
55	156		113-14	<p>Chapter Review</p> <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 7 	
56	157			<p>Chapter 7 Test</p> <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 7 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 8: Soil, Rocks, and Minerals					
57	158-62	142-46	115-16	<ul style="list-style-type: none"> • 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 <i>People are God's image-bearers</i> <i>Christians' use of science to show God's love to others</i> <i>Sin changed God's world</i> <i>People as stewards of God's creation</i>	
58	163-64	147-48	117-18	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 <i>Christians show God's love to others</i> <i>People as stewards of God's creation</i>	
62	174-75	158-59	125-28	Activity: Hard or Soft <ul style="list-style-type: none"> • Predict the hardness of several minerals • Test the hardness of several minerals 	Predicting Inferring
63	176		129-30	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 8 	
64	177			Chapter 8 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 8 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 9: Weather					
65	178–82	160–64	131, 133–34	<ul style="list-style-type: none"> • 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 <p><i>People as stewards of God's creation</i> <i>Christians' use of science to show God's love to others</i> <i>God's control of His creation</i> <i>God's perfect design</i></p>	
66	183–88	165–70	135–38	<ul style="list-style-type: none"> • 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 <p><i>God's perfect design</i> <i>God's control of His creation</i></p>	
67	189–91	171–73	139–40	<ul style="list-style-type: none"> • Name a tool used to measure temperature • Explain what causes wind • Identify tools used for measuring wind <p><i>God's control of His creation</i></p>	
68	192–93	174–75	141, 143–44	<p>Activity: Weather Watcher</p> <ul style="list-style-type: none"> • Observe local weather and record weather data • Notice patterns in recorded weather data 	Inferring Observing
69	194–95	176–77	145, 147–48	<ul style="list-style-type: none"> • 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 <p><i>God's Word provides comfort</i> <i>Christians' use of science to show God's love to others</i></p>	
70	196		149–50	<p>Chapter Review</p> <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 9 	
71	197			<p>Chapter 9 Test</p> <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 9 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 10: The Solar System					
72	198–203	178–83	151–53, 155	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Prepare a solar system mobile <i>God as Creator</i> <i>God's perfect design</i>	Classifying Communicating
73	204–7	184–87	157	<ul style="list-style-type: none"> • 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 <i>People's use of science to help others</i>	
74	208–11	188–91	159, 161–62	<ul style="list-style-type: none"> • 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 <i>God as Creator</i> <i>God's perfect design</i>	
75	212–17	192–97	163, 165–66	<ul style="list-style-type: none"> • 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 <i>God's use of creation for His glory</i>	
76	218		167–68	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 10 	
77	219			Chapter 10 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 10 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 11: Cells, Tissues, and Organs					
78	220–23	198–201	169	<ul style="list-style-type: none"> • 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 <i>God as Creator</i> <i>People's use of science to help others</i>	
79	224–27	202–5	171, 173–74	<ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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 <i>God's design of our bodies</i> <i>Christians working together</i>	
82	234		183–84	Chapter Review <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 11 	
83	235			Chapter 11 Test <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 11 	

Lesson	Teacher's Edition	Student Text	Activity Manual	Objectives and Biblical Worldview	Process Skills
Chapter 12: Skin					
84	236–41	212–17	185–87	<ul style="list-style-type: none"> • 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 <p><i>People as God's image-bearers</i> <i>People as stewards of God's creation</i> <i>Sin caused God's world to change</i></p>	
85	242–45	218–21	189–91, 193–95	<ul style="list-style-type: none"> • Recognize that the ridges on fingertips provide friction to grip things • Explain ways that fingerprints are useful <p>Activity: Patterns on My Skin</p> <ul style="list-style-type: none"> • Make and classify fingerprint patterns 	Classifying Observing
86	246–50	222–26	197	<ul style="list-style-type: none"> • 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 <p><i>God's perfect design</i></p>	
87	251	227		<p>Exploration: Under My Skin</p> <ul style="list-style-type: none"> • Make a model of the parts of the skin 	
88	252–53	228–29	199–200	<ul style="list-style-type: none"> • Explain why caring for our bodies is important • Explain two ways that keeping clean is important <p><i>God's perfect design</i></p>	
89	254		201–2	<p>Chapter Review</p> <ul style="list-style-type: none"> • Recall concepts and terms from Chapter 12 	
90	255			<p>Chapter 12 Test</p> <ul style="list-style-type: none"> • Demonstrate knowledge of concepts taught in Chapter 12 	