Table of Contents

Introduction		••	••	••	 •	••	••	•	••	•	•••	•	•••	4
How to Use This	Bo	ooł	ζ.	•••	 		•		•	•		•		5

Science Practices

Unit 1: What Scientists Do

What Do Scientists Do? 6
Observe with Tools7
Measuring Tools 8
Scientists Compare Things9
Cause and Effect 10

Life Science

Unit 2: Living and Nonliving

What Are Living Things?11
What Living Things Do
Living or Nonliving?13
Living and Nonliving Things Are Different . 14
Living and Nonliving Parts of a Habitat 15

Unit 3: Animals and Plants

Unit 4: Parts of Plants

Plants Have Roots and Stems	21
Plants Have Leaves	22
Plants Have Flowers	23
Plants Have Fruits and Seeds	24
Parts of a Plant	25

Unit 5: Animals and Plants Are the Same and Different

Animals and Plants Are the Same and

26
27
28
29
30

Unit 6: Animal Classes

31
32
33
34
· · 35

Unit 7: Animal Body Parts

Animal Senses
Animal Movement
Animals Eat and Drink
Animals Keep Warm or Cool
Animals Protect Themselves 40

Unit 8: Plant Reproduction

Plants Reproduce
Seeds 42
Seeds Move 43
Match the Plant to Its Parent44
Growing a Plant

Unit 9: Animal Reproduction and Young

Animals Reproduce46
Live Babies or Eggs?47
Babies That Look Like Their Parents 48
A Lot in Common
Babies That Change to Look Like Their
Parents

Unit 10: Animal Parent and Offspring Behaviors

Animals Take Care of Their Offspring 51 Animals Prepare for Their Offspring 52 Animals Protect Their Offspring 53 Animals Feed Their Offspring 54 Young Animals Help Themselves 55

Unit 11: Habitats

Animals Live in Habitats	
Desert Habitat	
Rainforest Habitat	
Polar Habitat	
Ocean Habitat60	



Table of Contents (cont.)

Unit 12: Food Chains

How Do You Get Energy? 61
Animals Need Energy 62
What Is a Food Chain?
Finish the Food Chains64
What's Missing?65

Unit 13: Our Five Senses

Our Senses	. 66
Senses Keep Us Safe	. 67
Using More Than One Sense	. 68
Our Sense of Touch	. 69
Our Sense of Taste	. 70

Earth and Space Science

Unit 14: Space

Day and Night
Day and Night Skies72
The Sun
The Moon
Astronauts

Unit 15: Seasons

Four Seasons
Summer
Fall
Winter
Spring

Unit 16: Weather

Types of Weather	81
Dressing for the Weather	32
What Would You Do?	33
Read a Weather Forecast	34
Weather Chart	35

Unit 17: Earth's Environment

Natural Resources	86
Water	87
Earth Materials: Rocks, Sand, and Soil	88
Living Resources	89
Conservation	90

Physical Science

Unit 18: Light Energy

Light	. 91
Light Sources	92
Light Passes Through	93
Shadows	94
Reflection	95

Unit 19: Sound Energy

What Is Sound?	.96
How to Make Sounds	. 97
Sound Words	. 98
Loud and Quiet Sounds	99
Musical Instruments	100

Unit 20: Heat Energy

What Is Heat?101
Heat Energy Moves
Keeping Heat In
Heat Changes Things
Light, Heat, or Sound Energy?105
Tracking Sheet
Answer Key

Name:

Plants Have Roots and Stems

Plants have **roots**. Roots grow down. They go into the ground. They hold the plant so it does not fall over. Roots bring water up to the plant.

We can eat some plant roots.



Carrot

Plants have **stems**. The stem holds the plant up. It carries water to the leaves. The stem of a tree is called the **trunk**.

We can eat some plant stems.



Giant sequoia



- **1.** Roots grow ______.
- 2. Roots go into the ______.
- **3.** Stems carry ______ to the

leaves of a plant.

4. Draw roots and a stem.

UNIT 5: Animals and Plants Are the Same and Different

Name:

Animals of the Same Kind

These animals are both bears. They are the same in some ways. They are different in other ways.



Brown bear

Giant panda

These bears are **different** in some ways. Brown bears have brown fur. They eat both plants and meat. They live where it is cold, so they sleep in the winter.

Giant pandas have black-and-white fur. They eat plants. They live where it is warmer, so they stay awake in the winter.

How are these bears the **same**? They both are big and have thick fur. They have large paws with long claws. The bears have little, round ears and short tails.

Directions: Fill in the chart below. Write ways that each bear is different. Then, write some ways they are the same.

Brown Bear	Giant Panda
Sa	me

UNIT 10: Animal Parent and Offspring Behaviors

Name:

Animals Take Care of Their Offspring

Many animals take care of their **offspring**. *Offspring* means "children" or "babies."

- Animals make safe homes. Some dig dens.
 Some build nests.
- Some feed their babies milk. Many animals bring food to their babies.
- They keep them warm. They hide them from danger.

Young animals also do things to help themselves.

- ➡ They cry when they are hungry.
- ➡ They hide or run from danger.



Stork feeding babies



Gorilla with baby



Owlets hiding

1. What are offspring?

a. parents

b. animals

c. babies

2. Who takes care of you? What do they do to help you?

3. How do you help take care of yourself?

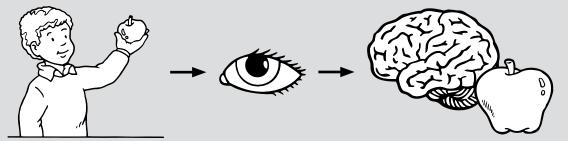
Name:

Senses Keep Us Safe

Why do we have senses? We use our senses to find out about the world around us.

How do senses work? We use different body parts to sense things. Then, our brain tells us about them.

You can use your eyes to see an apple. Your eyes send a message to your brain. Your brain makes sense of what you see. It tells you, "That is an apple."



Our senses work with our brains to keep us safe.

- ➡ If you feel something hot, your brain tells you to pull your hand away.
- → If you smell sour milk, your brain tells you not to drink it.

Directions: For each sense, fill in what your brain would tell you.

1. My eyes see a kitten. My brain tells me _____

2. My nose smells smoke. My brain tells me _____

3. My ears hear the teacher talking. My brain tells me

My tongue tastes a carrot. My brain tells me ______

5. My fingers feel a marble. My brain tells me _____

Name:

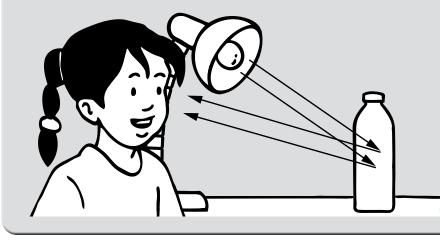
Light

Have you ever been in a very dark place? Was it so dark that you couldn't see anything? Then you know that we need **light** to see things.

Light is a kind of energy. We cannot feel or hear light. We can only see it.

Light comes from a **light source**. A *light source* is anything that makes its own light. The Sun is the biggest source of light for Earth. Light bulbs are another light source we use a lot.

Light travels in rays. Light rays travel in a straight line. When light leaves a light source, the rays go in all directions.





Light rays bounce off things. When light bounces into your eyes, you can see things. If there is no light, your eyes cannot see anything.

- **1.** We can _____ light.
 - a. see

b. feel

c. hear

- 2. A light source _____
 - a. bounces light off
 - **b.** makes its own light
- 3. Look around you. What light sources do you see right now?