BIG SCIENCE 1

STUDENT BOOK

ALWAYS LEARNING

PEARSON

BIG SCIENCE 1

Scope and Sequence

	Units	Lessons
Science, Engineering, and Technology	**Unit 1: The Nature of Science** **What is science?**	Lesson 1: What questions do scientists ask? Lesson 2: How do scientists observe? Lesson 3: How do scientists collect and record data?
	Unit 2: Solve Problems **How can you solve problems?**	Lesson 1: What are problems and solutions? Lesson 2: How do ideas become solutions? Lesson 3: How can you test and share solutions?
Life Science	**Unit 3: Living and Nonliving Things** **What can you say about living things?**	Lesson 1: What are living and nonliving things? Lesson 2: How are animals alike and different? Lesson 3: How are plants alike and different?
	Unit 4: Plants and Animals **How do living things change as they grow?**	Lesson 1: Do all young animals look like their parents? Lesson 2: How do some animals grow and change? Lesson 3: How do some plants grow and change?
	Unit 5: Body and Senses **What am I like?**	Lesson 1: What are my senses? Lesson 2: What does my body need?
Earth Science	**Unit 6: Earth and Sky** **What are Earth and the sky like?**	Lesson 1: What makes up Earth? Lesson 2: What can you see in the day and night skies? Lesson 3: What is the weather? What are the seasons?
Physical Science	**Unit 7: Objects** **What are objects like?**	Lesson 1: What are objects made of? Lesson 2: How can you sort objects? Lesson 3: How do we use some objects?
	Unit 8: Matter and Mixtures **What are matter and mixtures?**	Lesson 1: What are solids, liquids, and gases? Lesson 2: How can matter change? Lesson 3: What is a mixture?
	Unit 9: Motion **What are position and motion**	Lesson 1: What can you tell about an object's position? Lesson 2: What are some ways objects move? Lesson 3: What are magnets?

I will learn...	Key Words
• that scientists ask questions to learn.	• *scientist, science, observe, objects, questions, answers*
• ways scientists observe things.	• *senses, tools, measure, compare, group*
• ways scientists collect and record data.	• *collect, data, record, chart*
• about problems and solutions.	• *problem, solve, solution*
• how an idea becomes a solution.	• *idea, plan, design, choose, material*
• how to test and share solutions.	• *test, change, share, use*
• about living and nonliving things.	• *living, grow, need, nonliving, move*
• what living things need. • how animals are alike and different.	• *fur, body coverings, feathers, paws, fins, wings, beaks*
• how plants are alike and different.	• *stems, leaves, roots, flowers, seeds, petals, trunks*
• that living things grow and change.	• *look like, parents, butterfly, caterpillar, hatch*
• how some animals grow and change.	• *adult, lay eggs, life cycle, frog, tadpole, chrysalis*
• how some plants grow and change.	• *seedling, fruit*
• about the five senses.	• *see, hear, touch, taste, smell, feel, skin, tongue*
• what my body needs.	• *healthy, energy, exercise, sleep, shelter*
• about kinds of land and water on Earth.	• *Earth, land, oceans, lakes, rivers, swamps*
• what I can see in the day and night skies.	• *sky, sun, clouds, moon, stars*
• about weather and seasons.	• *weather, sunny, cloudy, clear, rainy, windy, snowy, seasons*
• what some objects are like.	• *weigh, heavy, light, wood, plastic, metal, glass*
• how to group some objects.	• *sort*
• some ways to use objects.	• *round, square, strong, see through, clay, sticky, wool*
• about solids, liquids, and gases.	• *matter, solid, liquid, container, gas*
• how water can change.	• *freeze, ice, melt, boil*
• about mixtures.	• *mixture*
• about position.	• *position, on, above, below, in front of, behind, next to*
• about how objects move.	• *push, away from, toward, pull, fast, slow*
• about magnets.	• *magnet, attract, repel*

Unit 1

The Nature of Science

What is science?

I will learn

- that scientists ask questions to learn.
- ways scientists observe things.
- ways scientists collect and record data.

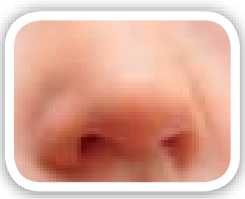
1 Circle what you can use to see things.



2 Circle the part of your body you can use to observe the color of a bird.







3 Mark (✔) the birds that look alike.
How do they look alike? Say as a class.


☐


☐


☐

Think!

What is the girl doing?

Lesson 1 • What questions do scientists ask?

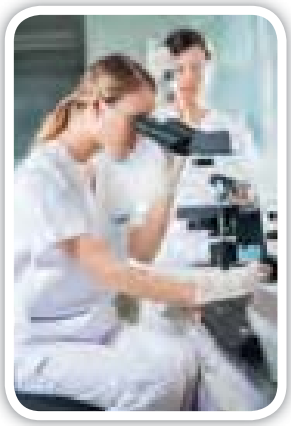
Key Words

- scientist
- science
- observe
- objects
- questions
- answers

1 **Read. What does a scientist do? Say as a class.**

Science and Scientists

A **scientist** uses **science** to learn about the world around us. A scientist can work with other scientists. They learn new things together. You can use science to learn, too.



2 **Do scientists work together? Say with a partner.**

3 **Read. Mark (✔) the scientists who observe things.**

Observe

Scientists observe. **Observe** means to find out about things. You can observe the size, shape, and color of **objects**. You can observe other things, too.

4 **Look at the leaves. What can you say about them? Say with a partner.**



5 **Read. Match the questions and answers with the pictures.**

Questions

Scientists ask many **questions**. They ask questions to find **answers**. You can ask questions. You can find answers, too!

a) What plant is it?
It's a tree.

b) Where is the animal's baby?
In a pouch.

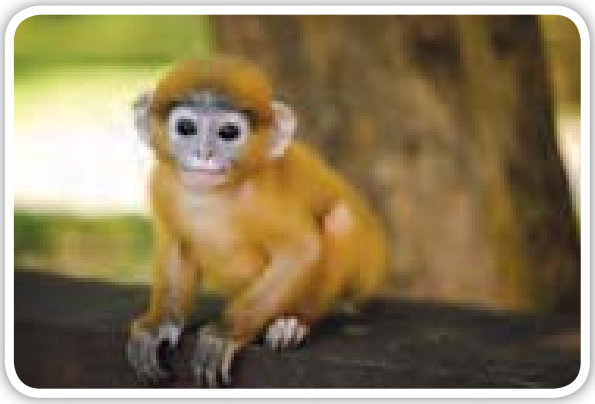
c) What is the green animal?
It's a frog.

6 Look at the pictures. What are three questions the boy can ask about the animals? Say as a class.

fireflies

firefly

7 Look at the monkey. Say two questions you can ask with a partner.



monkey

Think!

Pretend you are a scientist. What animal do you want to study? Why?

Lesson 2 · How do scientists observe?

Key Words

- senses
- tools
- measure
- compare
- group

1 **Read. Look at the fish. What colors do you see?**

Senses

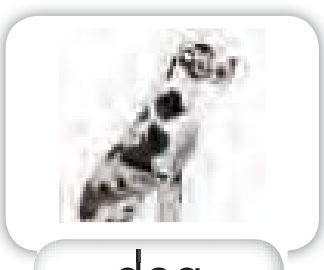
Scientists use their **senses** to observe. You can use your senses, too. You look to observe things like size, shape, and color. You listen to observe sounds.

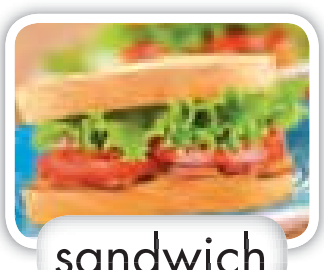
2 **Point to the big fish. Point to the small fish. What fish do you like more? Why?**

3 **Look around the classroom. Say three objects you see.**

4 **Circle the things you can hear.**


bird


dog

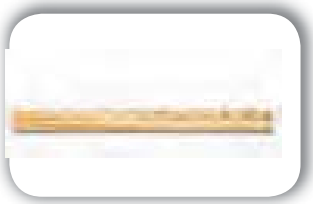

sandwich


frog

5 Read. Circle the tools.

Tools

Scientists can use **tools** to observe. A hand lens is a tool. It can help you see things. A ruler can help you measure how long an object is. A balance can help you measure how much there is. **Measure** means to tell things like how much, how long, and how tall.



ruler

hand lens

sandwich

balance

6 Say as a class. Match the tools to the questions.

ruler

balance

hand lens

How much is there?

What can I see?

How long is it?

7 **Circle *T* (true) or *F* (false).**

1. Scientists use tools to observe. **T / F**
2. You can observe how big or small something is. **T / F**
3. You only have three senses. **T / F**

8 **Read. Look at the picture. How are the fish alike? Say with a partner.**

Compare

Scientists say how things are alike. They say how things are different. **Compare** means to say how things are alike and different.

9 **Look at the butterflies. Compare. Say as a class.**