

# Unit 1

# The Nature of Science



## What is science?

1 What senses do we have? Look and match.



- hearing    taste    smell    touch    sight

2 What do you use the different parts of your body for? Read and write.

- |   |         |             |   |                 |
|---|---------|-------------|---|-----------------|
| 1 | smell   | <u>nose</u> | a | ears            |
| 2 | taste   | _____       | b | mouth           |
| 3 | sight   | _____       | c | <del>nose</del> |
| 4 | touch   | _____       | d | eyes            |
| 5 | hearing | _____       | e | hands           |

3 Which senses do you use in each activity? Look and mark (✓).

	smell	sight	taste	hearing	touch
	✓				



**4** How do our senses help us to find out about the world? Read and write the five senses.

**Reading Tip**

Read the text and underline the body parts. This will help you choose the correct senses.

**Saturday, September 12**

I am in my grandmother's garden. It is very pretty. My grandmother's (1) sight isn't very good, but she uses her other senses. There are a lot of big apple trees and she uses her hands for (2) \_\_\_\_\_. When she eats the apples from the trees, she uses her mouth for (3) \_\_\_\_\_. She uses her ears for (4) \_\_\_\_\_ the birds in the trees. There are flowers next to the trees. She uses her nose for (5) \_\_\_\_\_.



**5** Look at 4. Read and match.

- |                  |                      |
|------------------|----------------------|
| <b>1</b> hearing | <b>a</b> apple trees |
| <b>2</b> smell   | <b>b</b> apples      |
| <b>3</b> touch   | <b>c</b> birds       |
| <b>4</b> taste   | <b>d</b> garden      |
| <b>5</b> sight   | <b>e</b> flowers     |

**6** How do you use your senses? Complete for you.

- 1** I use my ears for hearing. I hear an airplane.
- 2** \_\_\_\_\_ smell. \_\_\_\_\_
- 3** \_\_\_\_\_ touch. \_\_\_\_\_
- 4** \_\_\_\_\_ taste. \_\_\_\_\_
- 5** \_\_\_\_\_ sight. \_\_\_\_\_

## Lesson 1 • What kinds of skills do scientists use?

1 What do we do in science? Look and write.

~~observe~~

predict

senses

results

experiment



observe

2 Mike has to do an experiment for homework. Read and write. Use the words from 1.



Hi Luke,

How are you? I have lots of homework this week 😞.

Our science teacher, Mr. Burton, wants us to carry out a(n)

(1) experiment at home.

Mr. Burton wants us to ask a question and then do an experiment to find out the answer. First, he wants us to (2) \_\_\_\_\_ the answer.

That's difficult! He says we can then compare our answer with the (3) \_\_\_\_\_ at the end.

He thinks the best way to (4) \_\_\_\_\_ is to use our (5) \_\_\_\_\_, like sight, smell, taste, touch, and hearing.

Help! What experiment can I do?

Write back soon!

Mike



- 3 Look at 2. Which are the simple present verbs? Underline.
- 4 Mike wrote the results of his experiment. Complete the sentences.

**Grammar Tip**  
 We **have** five senses: smell, hearing, touch, sight, and taste.

**Mike's Experiment**

Question: Do the birds like Tree A or Tree B more?  
 I predict that the birds like Tree A more.  
 Birds in Tree A and Tree B between 3:00 P.M. and 4:00 P.M.:

	<u>Tree A</u>	<u>Tree B</u>
Monday	5	4
Tuesday	3	4
Wednesday	1	1
Thursday	2	2
Friday	6	3

- 1 It's Monday. Tree A has five birds and Tree B \_\_\_\_\_ four birds.
  - 2 It's Tuesday. Tree A \_\_\_\_\_ three birds and Tree B \_\_\_\_\_ four birds.
  - 3 It's Wednesday. Tree A and Tree B \_\_\_\_\_ one bird.
  - 4 It's Thursday. Tree A \_\_\_\_\_  
and \_\_\_\_\_.
  - 5 It's Friday. \_\_\_\_\_  
\_\_\_\_\_.
- 5 Mike predicted that the birds like Tree A more. Is he correct? Circle.  
 Y / N

## Lesson 2 • How do scientists find answers?

### 1 Simon investigates how seeds grow. Read and write.

height      conclusion      measurement      hypothesis      ~~investigate~~



#### Simon's Science Blog

Posted: September 5th

Today, I am doing an experiment. I want to (1) investigate if seeds need water to grow. First, I ask the question: Do seeds need water to grow? Then, before I do the experiment, I need to make a (2) \_\_\_\_\_ to answer the question. I predict that the seeds that are watered will grow.

Now, I need to plan a fair test: I put seeds in two pots. Each day, I water only one pot. Then I look each day to see which seeds grow into a plant. I want to record the (3) \_\_\_\_\_ of the plants, so I take a (4) \_\_\_\_\_ every day.

Then I do the same experiment again to see if the results are the same.



Posted: September 21st

I finish my repeat experiment today. I compare results and draw my (5) \_\_\_\_\_. Seeds need water to grow. My hypothesis is correct 😊.

### 2 Write the details of Simon's experiment. Use the underlined text in 1.

1 Ask the question: \_\_\_\_\_ Do seeds need water to grow? \_\_\_\_\_

2 Hypothesis: \_\_\_\_\_

3 Fair test: \_\_\_\_\_

4 Repeat the investigation: \_\_\_\_\_

5 Conclusion: \_\_\_\_\_

- 3 Look at 1 and find *First* and *Then*. Circle.
- 4 Simon is planning another experiment. Read and write the steps of the experiment.

**Grammar Tip**

**First**, they ask questions.  
**Then** they investigate.

Hypothesis    Conclusion    ~~Question~~    Fair test    Repeat

Question: Do plants need the sun to grow?  
 \_\_\_\_\_: I predict that the plant in the sun will grow.  
 \_\_\_\_\_: I put one plant in the sun and I put one plant in the dark. I measure the height of each plant each day.  
 \_\_\_\_\_: I do the experiment again. I take measurements.  
 \_\_\_\_\_: Plants need the sun to grow.

- 5 Write the experiment in Simon's blog.

Posted: September 25th

I want to investigate if plants need the sun to grow. First, I ask the question: \_\_\_\_\_? Then I need to make \_\_\_\_\_ to answer the question: \_\_\_\_\_.  
 \_\_\_\_\_ Now, I need to plan a \_\_\_\_\_.  
 This is my test: \_\_\_\_\_.  
 I take \_\_\_\_\_. I measure the \_\_\_\_\_ of the plants every day. Then I repeat the \_\_\_\_\_. I compare results and draw my \_\_\_\_\_.

## Lesson 3 • How do scientists collect and share data?

1 Can you describe these rocks? Look, circle, and write.

throughcbsmoothsharpdijwroundededeopjaggedfnulargetsmalltall



rough

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2 We use our senses to find out how the rocks are different. Look and circle.

1 The **basalt** / **pumice** is smooth.



Basalt

2 The **pumice** / **granite** is large.



Pumice

3 The **pumice** / **granite** is rounded.

4 The **basalt** / **granite** is rough.



Granite

3 Look at 1 and 2. Write about the rocks.

Scientists use different senses to collect (1) data about the rocks. They use their senses of sight and touch to observe and measure the rocks. The results are very different. (2) \_\_\_\_\_ is a smooth rock. (3) \_\_\_\_\_ is large and rough. (4) \_\_\_\_\_ is rough and rounded.

**4** Look at the photos and the height of the trees. Complete the bar chart.



Fir = 80 m

**Fir tree**



Oak = 40 m

**Oak tree**

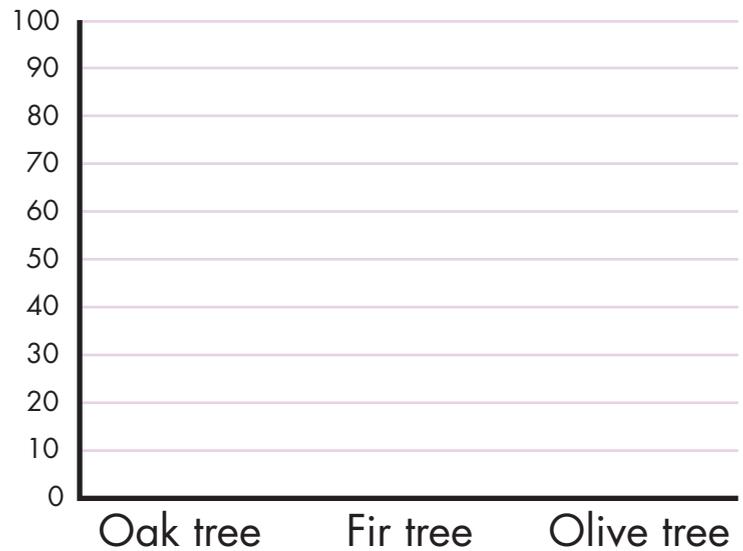


Olive = 7 m

**Olive tree**

**Reading Tip**

Tables, charts, and graphs help us understand a lot of information quickly. They can help us to compare things.



**5** Look at 4. Complete the chart. Then write the answers.

	Oak Tree	Fir Tree	Olive Tree
Where?	England	North America	Mediterranean
Height?			
Leaves?	smooth	very sharp	sharp

- 1 It's from North America. \_\_\_\_\_
- 2 It's 40 meters high. \_\_\_\_\_
- 3 Its leaves are very sharp. \_\_\_\_\_

**6** Look at 5. Which is your favorite tree? Write.

My favorite tree is a \_\_\_\_\_ tree. It's from \_\_\_\_\_.  
 It's \_\_\_\_\_ high. Its leaves \_\_\_\_\_.