

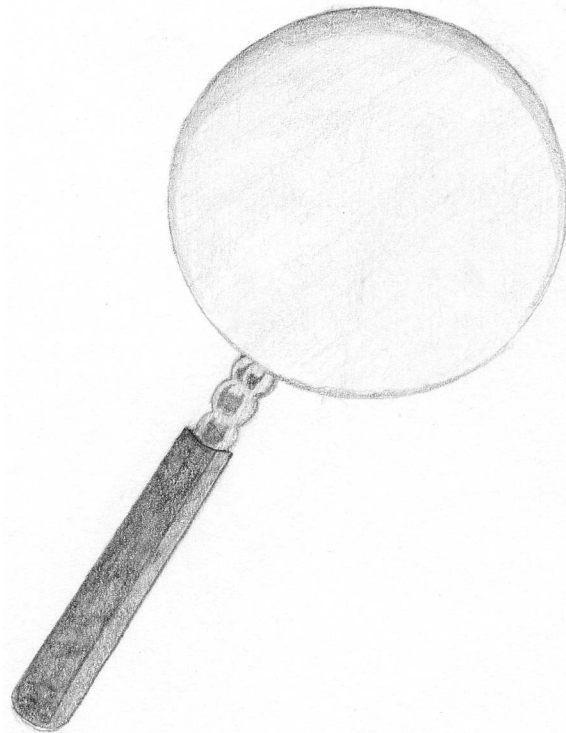
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Making Observations

Teacher's Guide



Visual Learning Company

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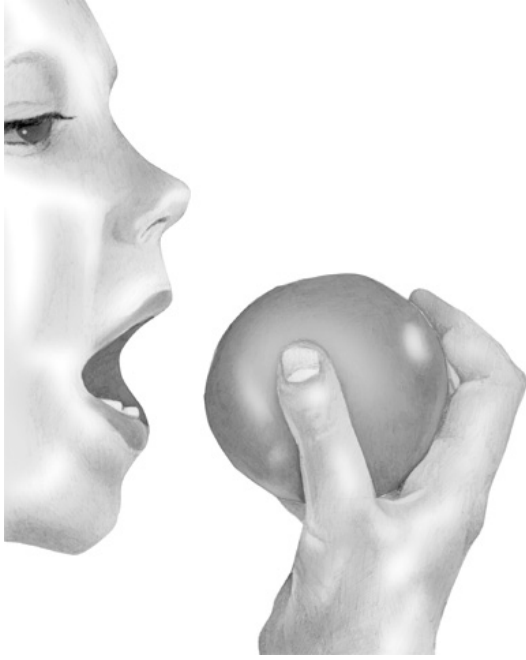
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Student Learning Objectives

Upon viewing the video and completing the enclosed student activities, students will be able to do the following:

- Explain that an observation is information we gather about something by using our senses.
- List the five senses of sight, hearing, taste, touch, and smell.
- Use their senses to make observations about things in the classroom.
- Understand that observations are very important to scientists because they help them learn new things.
- Know there are many tools that help scientists make more exact and accurate observations.
- Explain that measuring is the process of describing things with the use of numbers.
- Cite an example of something that is commonly measured.
- Describe data as recorded information gathered from observations.

Assessment

What Do You Know Now? (p. 10):

This preliminary assessment is an assessment tool designed to gain an understanding of students' preexisting knowledge. It can also be used as a benchmark upon which to assess student progress based on the objectives stated on the previous pages.

What Have You Learned? (p. 11):

This post assessment can be utilized as an assessment tool following student completion of the program and student activities. The results of this assessment can be compared against the results of the preliminary assessment to assess student progress.

Video Review (p. 12):

The Video Review can be used as an assessment tool or as a student activity. There are two sections. The first part contains questions displayed during the program. The second part consists of a five-question video quiz to be answered at the end of the video.

Introducing the Program

Before showing the video hold up a piece of fruit such as an apple or an orange. Ask students to describe the color of the fruit. Ask them what part of their body they used to identify the color of the fruit. Tell them their eyes are a sense organ, and that they have five senses. Write the five senses on the board: seeing, hearing, smelling, tasting, and feeling.

Next, ask students what parts of their body are responsible for hearing, smelling, tasting, and feeling. Explain how the senses are used to observe things around us. Discuss some examples of things that are observed by each of the different senses. Explain that these are all examples of observations. Tell students to pay close attention to the video to learn more about the process of making observations.

Key Vocabulary

data	hearing	magnifying glass	measuring	observation
senses	sight	smell	taste	touch

Program Viewing Suggestions

The student master “Video Review” is provided (p. 12) for distribution to students. You may choose to have your students complete this Master while viewing the program or do so upon its conclusion.

The program is approximately 10 to 12 minutes in length and includes a five-question video quiz. Answers are not provided to the Video Quiz in the video, but are included in this guide on page 9. You may choose to grade student quizzes as an assessment tool or to review the answers in class.

The video is content-rich with numerous vocabulary words. For this reason you may want to periodically stop the video to review and discuss new terminology and concepts.

Video Script

1. You can see that this fire truck is red.
2. And you know that candy has a sweet taste!
3. Perhaps you've seen fireworks and noticed that they make a loud bang.
4. We know all of these things from making observations.
5. What exactly are observations?
6. What are some of the ways we make observations?
7. And what kinds of tools are used to observe things?
8. During the next few minutes, we're going to answer these questions and others...
9. ...as we go about making observations.
- 10. Graphic Transition-What are Observations?**
11. You can see that the weather on this January day is snowy.
12. The tasty aroma of baked cookies is easily recognized.
13. And maybe you know how to find the weight of something by putting it on a scale.
14. These are all examples of observations. What exactly is an observation?
15. An **observation** is information we gather about something by using the senses. We have five senses. They include the sense of **sight, hearing, taste, touch, and smell.**
16. Our **senses** help gather information, referred to as observations.
17. The process of observing is very important to scientists because it helps them learn new things.
- 18. Graphic Transition- Using Your Senses**
- 19. You Observe!** What can you observe about this animal?
20. Using your eyes you see that it's a white, furry looking animal with four legs.
21. Using your ears you hear it making a baaaaah sound.
22. This animal is a sheep.
23. Sight and hearing are just two of the five senses that we use to make observations
24. Touch is another sense. We commonly touch things with our fingers.
25. But we also feel things like wind...
26. ...or the general air temperature with our skin.
27. The nose is responsible for the sense of smell.
28. Flowers, for example, smell sweet.
29. The fifth sense is taste.

Video Script

30. The tongue is the main part of the body responsible for taste.
31. It enables us to sense tastes such as bitterness, saltiness, and sweetness.
- 32. Graphic Transition - Measuring**
33. A **magnifying glass** is a tool that helps us observe this small insect.
- 34. You Decide!** How does this tool help us to observe things?
35. The magnifying glass helps us observe the insect by making it appear bigger.
36. There are many tools that scientists use to help make more exact and accurate observations.
37. Many of these tools are used in the process of measuring. What exactly is measuring?
- 38. Measuring** is the process of describing things with the use of numbers.
39. You may have had your height measured with measuring tools such as rulers, meter sticks or yardsticks.
40. You describe your height in numbers followed by centimeters or inches.
41. There are many types of measuring tools . . .
42. . . . used to measure lots of different things. Measuring is a very important way to make observations.
- 43. Graphic Transition - Observations and Data**
44. We've seen how the five senses can be used to make observations.
45. And we saw some examples of tools that can be used to make measurements.
46. Observations and measurements often result in the collection of data.
- 47. Data** is simply recorded information gathered from observations.
48. There are many types of data. Data is often in the form of numbers. But it can also be in form of other types of descriptions.
49. Let's make some observations of candy. We'll start by measuring the weight of different types of candy on a scale.
50. The data of candy weights is recorded as numbers seen here.
51. It's also possible to describe the candy in other ways, such as by color.
- 51. You Observe!** What's the color of this piece of candy?
52. That's right, it's red.
53. The data for candy color consists of words describing the color of each type of candy.
54. There are other observations we could also make about candy such as size, texture, and of course taste!

Video Script

55. Graphic Transition - Video Review

56. During the past few minutes we took a look at the process of making observations.
57. We began by describing ways our five senses are used to observe the world around us.
58. Next, we investigated the process of measuring,...
59. ...and the importance of different types of data.
60. This concluded our fascinating investigation of making observations.

61. Graphic Transition – Video Assessment

62. Fill in the correct word to complete the sentence.
 1. An ___ is information we gather.
 2. We make observations using our ____.
 3. A ruler is a tool used for ____.
 4. Measuring often involves describing things with ____.
 5. ____ is recorded information gathered from observations.

Literature Connections

Aliki. My Five Senses. New York: HarperCollins, 1989.

Hill Nettleton, Pamela. Look, Listen, Taste, Touch, and Smell: Learning About Your Five Senses. Minnesota: Picture Window books, 2006.

O'Brien-Palmer, Michelle. Sense-Abilities: Fun Ways to Explore the Senses. Illinois: Chicago Review Press, 1998.

Answer Key to Student Assessments

What Do You Know Now? (p. 10)

1. senses
2. five
3. sight
4. observations
5. taste
6. tools
7. numbers
8. scale
9. ruler
10. data

What Have You Learned? (p. 11)

1. scale
2. observations
3. ruler
4. senses
5. numbers
6. sight
7. data
8. five
9. tools
10. taste

Video Review (p. 12)

1. Using your eyes you see that it's a white, furry looking animal with four legs. Using your ears you hear it making a baaaaah sound.
2. The magnifying glass helps us observe the insect by making it appear bigger.
3. The color of this piece of candy is red.

Video Quiz (p. 12)

1. observation
2. senses
3. measuring
4. numbers
5. data

Answer Key to Student Activities

Our Senses (p. 13)

1. The eye enables us to see. We see other people.
2. Ears enable us to hear. We hear music and the voices of people.
3. Hands enable us to feel. We feel tools, books, and toys.
4. The nose enables us to smell. We smell flowers, smoke, and fresh cut grass.
5. The tongue enables us to taste. We taste food.

You Observe (p. 14)

1. The cover of the book could be many different colors. The pages are white.
2. The ice cube feels cold and wet.
3. Clapping hands make a loud, crisp sound.
4. Soap often smells sweet or perfume-like.
5. Candy tastes sweet.

Measuring (p. 15)

1. The ruler measures the length of things.
2. The scale measures the weight of things.
3. The thermometer measures the temperature of things.

What Do You Know Now?

Name: _____

Circle the best answer for each of the following questions.

- 1.** An observation is information gathered using our:
 - knowledge
 - spinal cord
 - senses
 - hair
- 2.** How many senses do humans have?
 - one
 - two
 - four
 - five
- 3.** We know the sky is blue by using the sense of:
 - sight
 - touch
 - smell
 - hearing
- 4.** Our senses gather information called:
 - numbers
 - observations
 - electricity
 - chemicals
- 5.** We know candy is sweet by using the sense of:
 - taste
 - sight
 - touch
 - hearing
- 6.** What do scientists sometimes use to help them make observations?
 - games
 - books
 - crystal balls
 - tools
- 7.** Measuring involves describing things with:
 - books
 - numbers
 - feelings
 - guessing
- 8.** Which of the following is a measuring tool?
 - plate
 - hammer
 - hose
 - scale
- 9.** What measuring tool would you use to measure the width of a book?
 - scale
 - beaker
 - string
 - ruler
- 10.** Recorded information gathered from observations is:
 - data
 - always in numbers
 - inaccurate
 - confusing

What Have You Learned?

Name: _____

Circle the best answer for each of the following questions.

- 1.** Which of the following is a measuring tool?
 - plate
 - hammer
 - hose
 - scale
- 2.** Our senses gather information called:
 - numbers
 - observations
 - electricity
 - chemicals
- 3.** What measuring tool would you use to measure the width of a book?
 - scale
 - beaker
 - string
 - ruler
- 4.** An observation is information gathered using our:
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 - senses
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- 5.** Measuring involves describing things with:
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 - numbers
 - feelings
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- 6.** We know the sky is blue by using the sense of:
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 - touch
 - smell
 - hearing
- 7.** Recorded information gathered from observations is:
 - data
 - always in numbers
 - inaccurate
 - confusing
- 8.** How many senses do humans have?
 - one
 - two
 - four
 - five
- 9.** What do scientists sometimes use to help them make observations?
 - games
 - books
 - crystal balls
 - tools
- 10.** We know candy is sweet by using the sense of:
 - taste
 - sight
 - touch
 - hearing

Video Review

Name: _____

While you watch the video, answer these questions:

1. You Observe!

What can you observe about this animal?

2. You Decide!

How does this tool help us to observe things?

3. You Observe!

What's the color of this piece of candy?

Video Quiz

After you watch the video, test your knowledge with these questions:

1. An _____ is information we gather.
2. We make observations using our _____.
3. A ruler is a tool used for _____.
4. Measuring often involves describing things with _____.
5. _____ is recorded information gathered from observations.

Our Senses

Name: _____

Our senses help gather information referred to as observations. We have five senses. They include the sense of sight, hearing, taste, touch, and smell. Different parts of the body sense different things.

Directions:

Describe the sense that the body part carries out. Then list an example of something that is sensed by it.











You Observe

Name: _____

An observation is information we gather about something by using the senses. The senses are very important in helping gather information called observations. Observing helps us learn new things.

Directions:

Your teacher will ask you to observe several things. Record your observations.

1. What color is this book?

2. How does the ice cube feel?

3. Describe the sound of hands clapping.

4. How does the soap smell?

5. Describe the taste of the piece of candy.

Measuring

Name: _____

There are many tools that we use to help make more exact observations. Many of these tools are used in the process of measuring. Measuring is the process of describing things with numbers.

Directions:

Match the measuring tool to its name, and then describe what it measures.

Ruler

Scale

Thermometer

