

## Chapter 2

Use with Text Pages 34-37

## REINFORCEMENT

## ● Standards of Measurement

Fill in the missing information in the table below.

SI prefixes and their meanings	
Prefix	Meaning
	0.001
	0.01
deci-	0.1
	10
hecto-	100
	1000

Circle the larger unit in each pair of units.

1. millimeter, kilometer
2. decimeter, dekameter
3. hectogram, decigram
4. centimeter, millimeter
5. hectogram, kilogram

6. In SI, the base unit of length is the meter. Use this information to arrange the following units of measurement in the correct order from smallest to largest. Write the number 1 (smallest) through 7 (largest) in the spaces provided.

- |                     |                     |
|---------------------|---------------------|
| _____ a. kilometer  | _____ e. hectometer |
| _____ b. centimeter | _____ f. millimeter |
| _____ c. meter      | _____ g. decimeter  |
| _____ d. dekameter  |                     |

Use your knowledge of the prefixes used in SI to answer the following questions in the spaces provided.

7. One part of the Olympic games involves an activity called the decathlon. How many events do you think make up the decathlon? \_\_\_\_\_
8. How many years make up a decade? \_\_\_\_\_
9. How many years make up a century? \_\_\_\_\_
10. What part of a second do you think a millisecond is? \_\_\_\_\_

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## REINFORCEMENT

## ● Using SI Units

1. Complete the table below by supplying the missing information.

Measurement	Base unit	Symbol
	meter	
mass		
	second	
temperature		

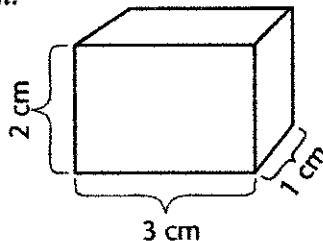
In each of the following, circle the units that would most likely be used to express each kind of measurement. You may circle more than one answer for each item.

2. Volume of a solid: mL m<sup>3</sup> cm<sup>3</sup> L  
 3. Volume of a liquid: mL mg cm<sup>3</sup> L  
 4. Density of a material: g g/cm<sup>3</sup> kg/m<sup>3</sup> L  
 5. Temperature: °K K °C Kg  
 6. Mass: kg K cm<sup>3</sup> mg  
 7. Time: kg K s mm  
 8. Length: K km m cm

For each pair of equations, write the letter of the equation that expresses an equal value.

- \_\_\_ 9. a. 1 L = 1 dm<sup>3</sup>                      b. 1 L = 1 cm<sup>3</sup>  
 \_\_\_ 10. a. 1 mL = 1 cm<sup>3</sup>                    b. 1 cm<sup>3</sup> = 1 L  
 \_\_\_ 11. a. 0°C = -273 K                    b. 0 K = -273°C  
 \_\_\_ 12. a. 1 kg = 100 g                      b. 1000 g = 1 kg  
 \_\_\_ 13. a. 400 cm = 4.0 m                   b. 400 cm = 0.40 m  
 \_\_\_ 14. a. 1 dm = 10 m                      b. 1 dm = 0.10 m  
 \_\_\_ 15. a. 100°C = 373 K                    b. 373 K = 10°C

16. Calculate the volume of the box in the diagram.



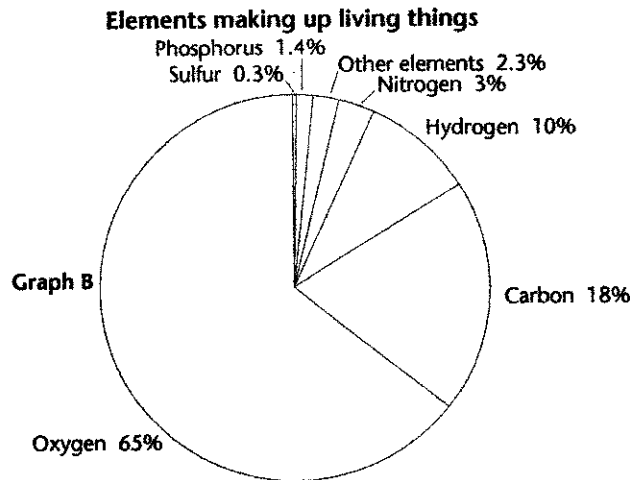
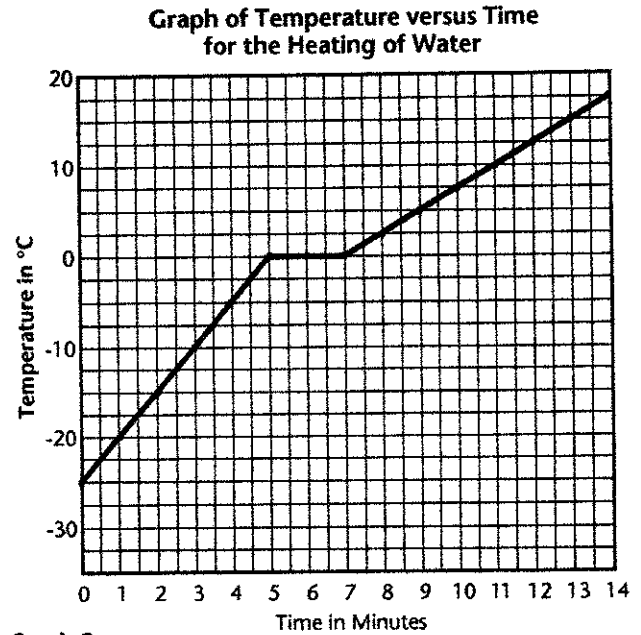
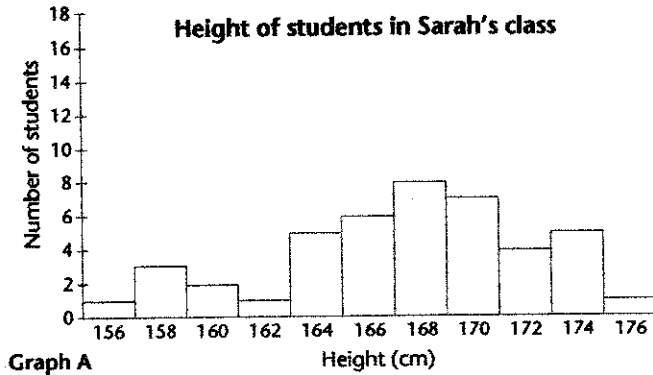
Chapter 2

Use with Text Pages 48-51

REINFORCEMENT

Graphing

Use the graphs below to answer the following questions.



1. What type of graph is graph A? \_\_\_\_\_
2. What information is shown on graph A? \_\_\_\_\_
3. What height do the greatest number of students in Sarah's class have in common? \_\_\_\_\_
4. What type of graph is graph B? \_\_\_\_\_
5. What information is shown in graph B? \_\_\_\_\_
6. What element makes up the largest part of living things? \_\_\_\_\_
7. What type of graph is shown in C? \_\_\_\_\_
8. What does graph C show? \_\_\_\_\_
9. What is the dependent variable in graph C? \_\_\_\_\_
10. What is the independent variable in graph C? \_\_\_\_\_
11. On what axis is the independent variable plotted? \_\_\_\_\_
12. On what axis is the dependent variable plotted? \_\_\_\_\_

## Chapter 2

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## REINFORCEMENT

## ● SI for All?

In the second column of the table below, identify an everyday unit that you would use to measure each item listed. In the last column, identify the SI unit you would use to measure the same quantity.

Item	Everyday unit	SI unit
1. Gasoline		
2. Length of a room		
3. Distance to another town		
4. Milk		
5. Ground beef		
6. Length of a football field		
7. Canned vegetables		

Solve the following problems. Show your calculations in the space below each problem.

- Sam is 75 inches tall. How tall is Sam in feet?
- Sam is 190.5 centimeters tall. How tall is Sam in meters?
- One pound of ground beef costs \$2.69. What is the cost of ground beef per ounce?
- One kilogram of ground beef costs \$1.22. What is the cost of the ground beef per gram?

Answer the following question.

- Is it easier to convert from one unit to another using everyday units or using SI units?

Explain your answer. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_