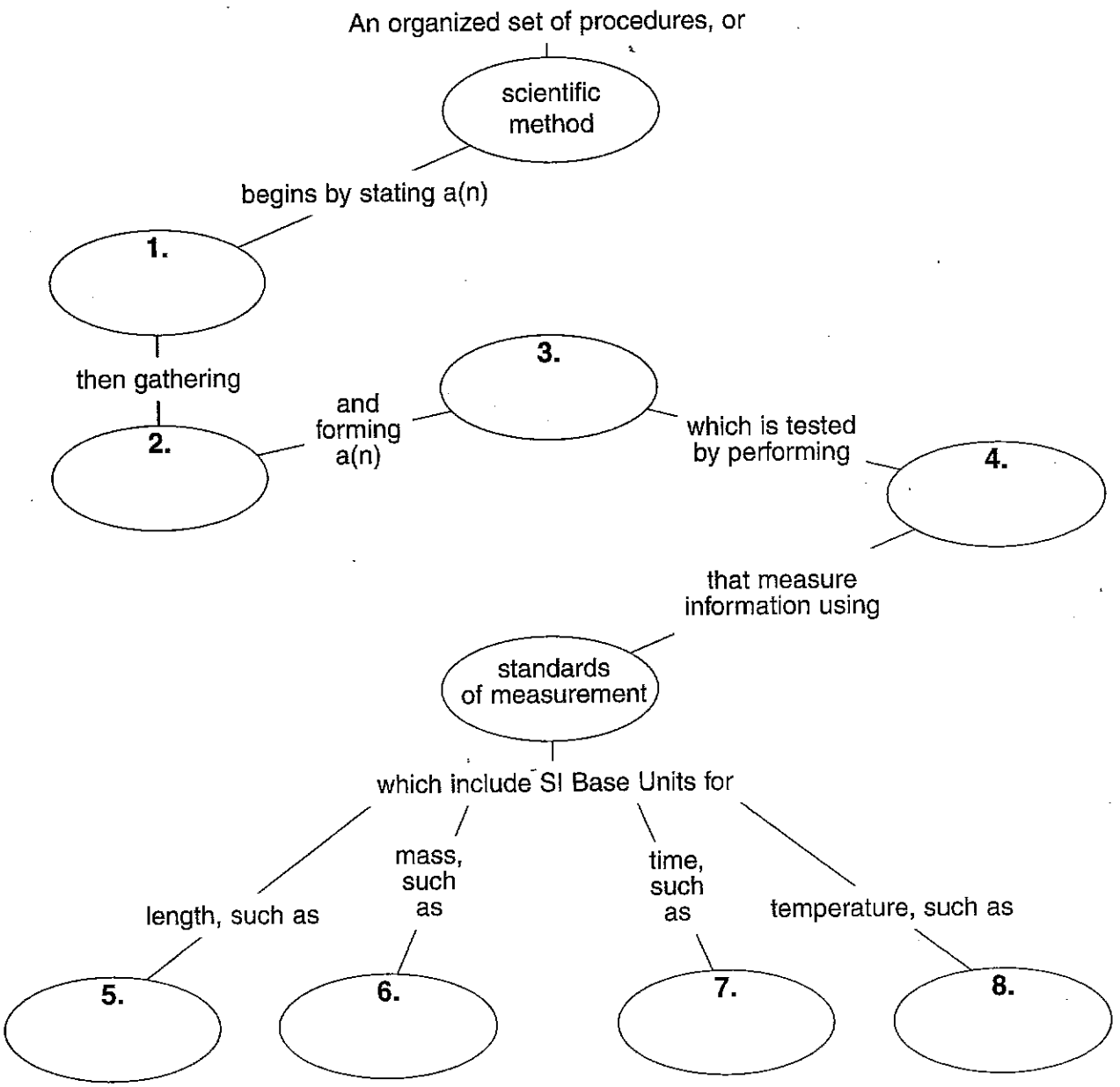
Name Date Class

Directed Reading for Content Mastery

Overview The Nature of Science

Directions: *Complete the concept map using the following terms.*

hypothesis	**experiments**	**kelvin**
meters	**grams**	**seconds**
problem	**information**	



Meeting Individual Needs

Name Date Class

Directed Reading for Content Mastery

Section 3 ▪ Communicating with Graphs

Directions: *Choose the term from the word list that best completes each statement. Write the term in the blank at the left of each statement.*

graph	**vertical**	**dependent**	**line graph**
horizontal	**independent**	**bar graph**	***x*-axis**
information	**circle graph**	***y*-axis**	**percentages**

_____ **1.** A visual display of data or information is a _____.

_____ **2.** Information collected by counting can best be displayed on a _____.

_____ **3.** In a line graph, the _____ axis is called the *y*-axis.

_____ **4.** In a line graph, the dependent variable is plotted on the _____.

_____ **5.** A graph that shows information as parts of a circle is a _____.

_____ **6.** The type of graph that is useful for showing trends or continuous change is a _____.

_____ **7.** Information in a circle graph is often shown as _____.

_____ **8.** A variable that changes and affects the measure of another variable is called the _____ variable.

_____ **9.** In a line graph, the independent variable is plotted on the _____ axis.

_____ **10.** Graphs are a quick way of communicating a lot of _____ in a small space.

_____ **11.** A variable that changes as a result of the other variable is called a _____ variable.

_____ **12.** In a line graph, the horizontal axis is also called the _____.

Meeting Individual Needs

Name _____ Date _____ Class _____

SECTION 2 Reinforcement

Standards of Measurement

Directions: *Complete the table below by supplying the missing information.*

Measurement	Base Unit	Symbol
1.	meter	5.
mass	3.	6.
2.	second	7.
temperature	4.	8.

Directions: *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 term.*

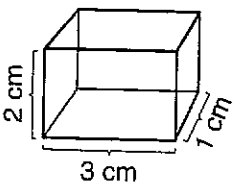
9. volume of a solid: mL m^3 cm^3 L
10. volume of a liquid: mL mg cm^3 L
11. density of a material: g g/cm^3 kg/m^3 L
12. temperature: °K K °C Kg
13. mass: kg K cm^3 mg
14. time: kg K s mm
15. length: K km m cm

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

_____ 16.	**a.** 1 L = 1 dm^3	**b.** 1 L = 1 cm^3
_____ 17.	**a.** 1 mL = 1 cm^3	**b.** 1 cm^3 = 1 L
_____ 18.	**a.** 0°C = –273 K	**b.** 0 K = –273°C
_____ 19.	**a.** 1 kg = 100 g	**b.** 1,000 g = 1 kg
_____ 20.	**a.** 400 cm = 4.0 m	**b.** 400 cm = 0.40 m
_____ 21.	**a.** 1 dm = 10 m	**b.** 1 dm = 0.10 m
_____ 22.	**a.** 100°C = 373 K	**b.** 373 K = 10°C

Directions: *Calculate the volume of the box in the diagram.*

23. _____



Meeting Individual Needs

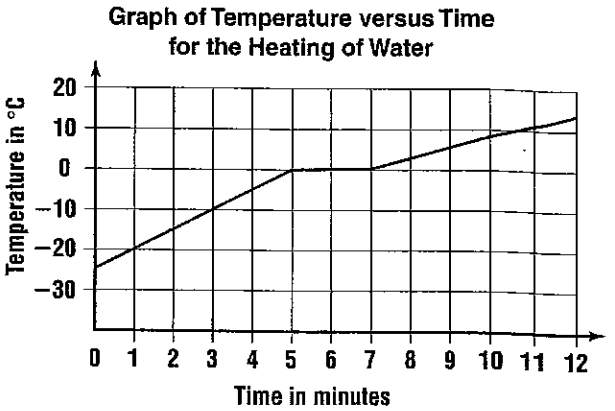
Name _____ Date _____ Class _____

SECTION 3 Reinforcement

Communicating with Graphs

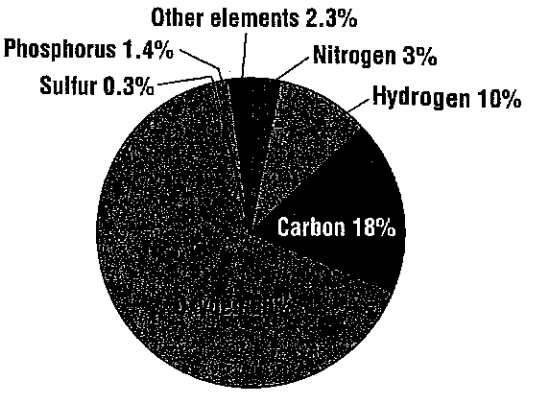
Directions: *Use the graphs below to answer the following questions.*

Graph A

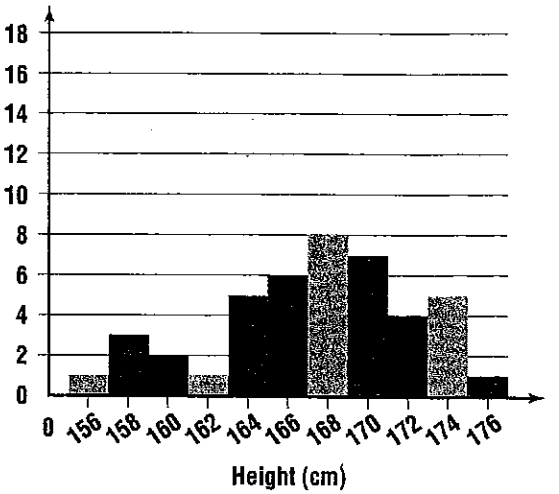


Graph B

Elements Making Up Living Things



Graph C



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