



# REVIEW

# Chapter 1 The Science of Life

Fill in the blanks with the correct terms. Note that some letters have numbers beneath them. Transfer the letters on these lines to the matching lines in the statement below.

1. \_\_\_\_\_ is the science of life.  
1
2. Scientific explanations are based on \_\_\_\_\_ and observation, not superstition or fiction.  
2 19
3. The scientific method was, in part, developed by \_\_\_\_\_ in the second century.  
3
4. A Belgian doctor who made careful observations about the human body was \_\_\_\_\_.  
18
5. Attempts to answer questions for the sake of knowledge is known as \_\_\_\_\_ science.  
5
6. Using knowledge to solve practical problems is \_\_\_\_\_ science.  
6
7. A scientist \_\_\_\_\_ a problem before any experiment is begun.  
7
8. A \_\_\_\_\_ is a trial answer to a problem.  
8 17
9. Only after there is evidence to support it is a \_\_\_\_\_ drawn.  
9
10. The part of an experiment in which the factor being tested is omitted is the \_\_\_\_\_.  
10
11. A \_\_\_\_\_ is a hypothesis that is well supported by evidence.  
11
12. People who work as \_\_\_\_\_ perform established procedures rather than seek new knowledge.  
12
13. Leeuwenhoek is remembered for his observations made through a \_\_\_\_\_.  
16 13
14. A modern light microscope usually has several \_\_\_\_\_.  
4
15. The unit of measurement commonly used in microscopic study is the \_\_\_\_\_.  
14
16. The ability of a light microscope to separate the images of two nearby objects is its \_\_\_\_\_.  
15

8 11 3

4 2 17 5 9 10 13 7 1 14

18 18 19 12 15 6

# PRACTICE FOR EXAM #1.

## Metric Mania

Name \_\_\_\_\_

### LENGTH:

1. What is the basic unit for length? \_\_\_\_\_
2. Circle the best unit for measuring each distance:
  - a. Thickness of an eyelash: mm cm m
  - b. Length of a pencil: cm m km
3. Use a meter stick or metric ruler to find each measurement.
  - a. Width of this page \_\_\_\_\_ mm or \_\_\_\_\_ cm
  - b. Length of an unsharpened pencil \_\_\_\_\_ cm
4. Convert the following measurements:
  - a. 34 mm = \_\_\_\_\_ cm
  - b. 3 km = \_\_\_\_\_ m
  - c. 234 cm = \_\_\_\_\_ m
  - d. 35 m = \_\_\_\_\_ mm

### MASS:

5. What is the basic unit for mass? \_\_\_\_\_
6. Circle the best unit for measuring each mass:
  - a. Amount of spices in a batch of cookies: mg g kg
  - b. Your mass: mg g kg
  - c. Mass of 10 pennies: mg g kg
7. Use a triple-beam balance to find each measurement.
  - a. Mass of an ink pen \_\_\_\_\_ g
  - b. Mass of a can of soda \_\_\_\_\_ g
8. Convert the following measurements:
  - a. 16 mg = \_\_\_\_\_ g
  - b. 4.7 kg = \_\_\_\_\_ g
  - c. 12,345 g = \_\_\_\_\_ kg
  - d. 2 g = \_\_\_\_\_ mg

### TEMPERATURE:

15. What is the basic unit for temperature? \_\_\_\_\_
16. What are the freezing and boiling points for water on this scale? \_\_\_\_\_
17. Circle the best choice:
  - a. Temperature on a hot summer's day: 0° 35° 90°
  - b. Room temperature: -20° 0° 20°
18. Convert the following measurements.
  - a. 90° F = \_\_\_\_\_ ° C
  - b. 45° F = \_\_\_\_\_ ° C

**VOLUME:**

19. What is the basic unit for volume? \_\_\_\_\_

20. Circle the best unit for measuring each volume:

a. Amount of soda in 1 can: mL L

b. Water in a bathtub: mL L

21. Determine the volume for each object.

a. Use  $L \times W \times H$  to find the volume of a chalkboard eraser \_\_\_\_\_  $cm^3$

b. Use water displacement to find the volume of four marbles

\_\_\_\_\_ ml or \_\_\_\_\_  $cm^3$

22. Convert the following measurements:

a. 160 mL = \_\_\_\_\_ L

b. 23 kL = \_\_\_\_\_ L

c. 456 cL = \_\_\_\_\_ mL

c. 120 mL = \_\_\_\_\_  $cm^3$

**TIME:**

23. What is the basic unit for measuring time? \_\_\_\_\_

24. How many seconds are in:

a. 1 minute? \_\_\_\_\_

b. 6 hours? \_\_\_\_\_

c. 2 days? \_\_\_\_\_

**DENSITY:**

28. Would the objects with the following densities float, sink, or remain suspended in tap water?

a. 0.85 g/mL \_\_\_\_\_

b. 1.0 g/mL \_\_\_\_\_

c. 1.4 g/mL \_\_\_\_\_

d. 0.92 g/mL \_\_\_\_\_

## Metric Mania Answer Keys

### Conversion Practice

NOTE: See overhead copy for the stairstep boxes.

$$1000 \text{ mg} = 1 \text{ g}$$

$$160 \text{ cm} = 1600 \text{ mm}$$

$$109 \text{ g} = 0.109 \text{ kg}$$

$$1 \text{ l} = 1000 \text{ ml}$$

$$14 \text{ km} = 14000 \text{ m}$$

$$250 \text{ m} = .250 \text{ km}$$

$$56 \text{ cm} < 6 \text{ m}$$

$$7 \text{ g} > 698 \text{ mg}$$

### Conversion Challenge

1. kg

2. m

3. g

4. ml

5. mm

6. l

7. km

8. cm

9. mg

1. 2 g

2. 104000 m

3. 4.8 m

4. 5600 g

5. .8 cm

6. 5000 ml

7. 0.198 kg

8. 0.075 l

9. 0.5 m

10. 560 cm

11. 160 mm

12. 2.5 km

13. 65000 mg

14. 63 mm

15. 0.12 g

16. <

17. >

18. =

19. =

20. <

21. >

