

# 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:
- Amount of soda in 1 can: mL L
  - Water in a bathtub: mL L
21. Determine the volume for each object.
- Use  $L \times W \times H$  to find the volume of a chalkboard eraser \_\_\_\_\_  $\text{cm}^3$
  - Use water displacement to find the volume of four marbles  
\_\_\_\_\_ ml or \_\_\_\_\_  $\text{cm}^3$
22. Convert the following measurements:
- 160 mL = \_\_\_\_\_ L
  - 23 kL = \_\_\_\_\_ L
  - 456 cL = \_\_\_\_\_ mL
  - 120 mL = \_\_\_\_\_  $\text{cm}^3$

**TIME:**

23. What is the basic unit for measuring time? \_\_\_\_\_
24. How many seconds are in:
- 1 minute? \_\_\_\_\_
  - 6 hours? \_\_\_\_\_
  - 2 days? \_\_\_\_\_

**DENSITY:**

28. Would the objects with the following densities float, sink, or remain suspended in tap water?
- 0.85 g/mL \_\_\_\_\_
  - 1.0 g/mL \_\_\_\_\_
  - 1.4 g/mL \_\_\_\_\_
  - 0.92 g/mL \_\_\_\_\_