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 = _____ ^{o} C
   b. 45° F = _____ ^{o} 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 x W x H to find the volume of a chalkboard eraser _____ cm3
    b. Use water displacement to find the volume of four marbles

    _____ ml or _____ cm3

22. Convert the following measurements:
    a. 160 mL = _____ L   b. 23 kL = _____ L
    c. 456 cL = _____ mL   c. 120 mL = _____ cm3

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 _____

Measure the mass and volume of 4 marbles. Calculate the density of the marbles.		
Mass (grams)	Volume (mL)	Density (g/mL)

Measure the mass and volume of 2 metal blocks. Calculate the density of both blocks.		
Block 1 Mass (grams)	Block 1 Volume (cm³)	Block 1 Density (g/cm³)
Block 2 Mass (grams)	Block 2 Volume (cm³)	Block 2 Density (g/cm³)