Metric Skill – Test Review

Metric Units

Directions: Complete the chart below:

Metric Unit Review

Metric Unit	Metric symbol	What is measured?	Instrument Used?

Metric Conversion Practice

Directions: Solve all conversion problems and be sure to show work!

Prefix Chart

1.) 14.5 g = _____ kg

2.) 625,365 mm = _____ m

3.) 7.2 km = _____ cm

4.) 140 dg = _____ dag

5.) 568.75 L = _____ daL

6.) .25 m = _____ mm

SCIENTIFIC MEASURMENT:

1. What are measurements used for in science?

   _____

2. Which measurement system is used by scientists?_____

3. Why is uniform measurement important?

   _____

4. List the 3 basic units of metric measurement - _____,
   _____, _____
5. Convert the following measurements:

   a. 34 mm = _____ cm b. 3 km = _____ m

   c. 234 cm = _____ m d. 35 m = _____ mm

LENGTH:

1. What is the basic unit for length? _____
2. Choose 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 a pen _____cm

AREA:

1. The units of area are: _____
2. Find the area of the surface below, by using the formula: _____

26 mm

MASS:

1. What is the basic unit for mass? _____
2. Choose 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

3. Be able to use a triple-beam balance to find each measurement.
    a. Mass of an ink pen _____ g
    b. Mass of a can of soda _____ g

4. Convert the following measurements:
    a. 16 mg = _____ g
    b. 4.7 kg = _____ g
    c. 12,345 g = _____ kg
    d. 2 g = _____ mg

VOLUME:

1. What is the basic unit for volume? _____
2. Circle the best unit for measuring each volume:

    a. Amount of soda in 1 can: mL L

    b. Water in a bathtub: mL L

3. Determine the volume for each object.
    a. Use L x W x H to find the volume of a chalkboard eraser _____ cm3
    b. Explain how the Water Displacement Method works?

_____

_____

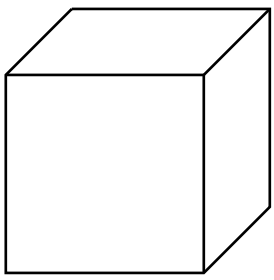
4. Convert the following measurements:

    a. 160 mL = _____ L
    b. 23 kL = _____ L
    c. 456 cL = _____ mL
    c. 120 mL = _____ cm3

5. Find the volume of the box below, using the formula:

_____

6 cm



2 cm

4 cm

a. How many mL of water would fill the box above?
_____

b. What is the Mass of the water that filled the box?
_____

Temperature:

1. Temperature is a way of measuring _____ _____.
2. Heat is the energy _____ give off as they collide
3. Heat flows from the _____ object to the _____ object, therefore _____ objects are warmed up not the other way around.
4. _____ molecules do not move much, they are close together
5. _____ molecules move faster, bump into each other, and spread out
6. _____ molecules have more space between them and take up more space.
7. A _____is the instrument used to measure the temperature of objects
8. Thermometers measure temperature in different scales in Fahrenheit, Celsius, and Kelvin. Which scale is described below:
   a. _____ scale is used in the US (it contains an arbitrary 180 degrees between freezing and boiling point)
   b. _____ scale is used by the rest of the world (this scale is divided into 100 degrees between freezing and boiling point)
   c. _____ scale is used by scientists (this scale starts at Absolute Zero – which is the point at which there is no molecular movement)
9. In a thermometer the color liquid (usually alcohol) moves up and down with temperature changes. It move _____ when it hot and molecules take up more space, it moves _____ when molecules move less.
10. Fill in the missing Celsius data below :