Metric Conversion Worksheet 1

Name _____

Date _____ **Hr.** _____

Objectives:

1. Students will practice converting within the metric system.

Directions:

1. Convert the following measurements. You may use a number line but no calculator.

Measurement		Convert to Metric Units		
1	23.6 cm	m	mm	dm
2	456 mm	cm	m	hm
3	6.89 km	hm	m	mm
4	77.8 Dm	m	hm	km
5	0.97 m	mm	km	dm
6	89.078 ml	l	cl	dl
7	8.55 l	kl	cl	ml
8	19003.9 ul	ml	hl	cl
9	369118 ml	Dl	l	kl
10	0.779 kl	l	ml	hl
11	2.678 kg	g	cg	Dg
12	963.8 g	kg	hg	ug
13	46666.56 mg	cg	g	dg
14	952.45 Dg	hg	kg	g
15	3456.0 g	hg	cg	kg

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 _____

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Objective: to practice use of brain on determining the most appropriate unit for a certain measurement.

Direction: Write in the symbol of the given unit that would be <u>most appropriate</u> to measure each item? If the teacher allows you make work with a partner or your table.

Given units:

cm,	m,	km,	mg,	g,	kg,	mL,	L,	kL

1. distance to the CJH gym from here   _____
2. your height   _____
3. distance to Moore High School   _____
4. height of school auditorium   _____
5. width of your table   _____
6. width of a large Oklahoma Lake   _____
7. width of the classroom   _____
8. amount of salt on your fries   _____
9. amount of medicine in a pill   _____
10. weight of 2 liter bottle of Coke   _____
11. weight of a sack of potatoes   _____
12. amount of fat in a hamburger   _____
13. weight of one mouthful of fries   _____
14. amount of water you drink in a day   _____
15. size of a swimming pool   _____
16. amount of water used in each flush   _____
17. amount of liquid a straw holds   _____
18. amount of medicine in injections   _____
19. volume of your head   _____
20. weight of your head   _____

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Metric System Challenge　　　　　Name _____

1. Instrument used to find mass. _ _ _ _ _ _ - _ _ _ _ _ _ _ _ _ _
　　　　　　　　　　　　　　　　　21　　　　　　17
　　　　　　　　　　　　　　　23

2. Metric unit for length _ _ _ _ _
　　　　　　　　　　　　　20

3. Amount of space an object takes up _ _ _ _ _ _
　　　　　　　　　　　　　　　　　　16

4. 9.8 m/s^2 _ _ _ _ _ _ _
　　　　　　　　10

5. Metric unit for mass _ _ _ _
　　　　　　　　　　　　15

6. Instrument used to measure volume _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
　　　　　　　　　　　　　　　　　　6　　8　　25

7. Mass ÷ volume _ _ _ _ _ _ _
　　　　　　　　　19　　24

8. 1 meter = 100 _ _ _ _ _ _ _ _ _ _ _
　　　　　　　4

9. Metric unit for weight _ _ _ _ _ _
　　　　　　　　　　　　5

10. Metric unit for liquid volume _ _ _ _ _
　　　　　　　　　　　　　　　3

11. Amount of matter in an object _ _ _ _
　　　　　　　　　　　　　　26

12. Measure of the force of gravity acting on an object _ _ _ _ _ _
　　　　　　　　　　　　　　　　　　　　　　　18

13. Metric unit for temperature _ _ _ _ _ _ _
　　　　　　　　　　　　　11　　1

14. 1 liter = 1,000 _ _ _ _ _ _ _ _ _ _
　　　　　　　7

15. The name of the "bubble" _ _ _ _ _ _ _ _
　　　　　　　　　　　　　　22

16. 1000 grams = 1 _ _ _ _ _ _ _ _
　　　　　　　　12

17. Instrument used to measure length _ _ _ _ _ _ _ _ _ _ _
　　　　　　　　　　　　　　　　14

18. 1 milliliter = 1 _ _ _ _ _ _ _ _ _ _ _ _ _ _
　　　　　　　　　13

19. Width, height, thickness, or distance _ _ _ _ _ _
　　　　　　　　　　　　　　　　　9

20. Formula for calculating volume _ x _ x _
　　　　　　　　　　　　　　　　　　　2

Why were the teacher's eyes crossed?

_ _ _　 _ _ _ _ _ _ _　 _ _ _ _ _ _ _　 _ _ _　 _ _ _ _ _ _!
1　2　3　　4　5　6　7　8　9　10　　11　12　13　14　15　16　17　　18　19　20　　21　22　23　24　25　26

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