

Name \_\_\_\_\_ Date \_\_\_\_\_ Block \_\_\_\_\_

# Metric Lab

## Part 1: Length Lab

1. What does each unit represent?

- (a) mm = \_\_\_\_\_ (c) m = \_\_\_\_\_  
(b) cm = \_\_\_\_\_ (d) km = \_\_\_\_\_

2. How much does each one equal?

- (a) 1 m = \_\_\_\_\_ cm (b) 1 cm = \_\_\_\_\_ mm (c) 1 km = \_\_\_\_\_ m

3. Which measurement is the largest? Circle your answer for each pair.

- (a) 14 mm or 1 cm (d) 145 m or 145 km  
(b) 334 m or 1 km (e) 3.4 cm or 30 mm  
(c) 1 m or 990 cm (f) 10 km or 1000 cm

4. Use a metric ruler or meter stick to find each measurement.

5.

- (a) Length of the line in centimeters \_\_\_\_\_  
(b) Length of the line to the nearest centimeter \_\_\_\_\_



- (a) Height of the rectangle to the nearest millimeter \_\_\_\_\_  
(b) Width of the rectangle to the nearest millimeter \_\_\_\_\_

6. My hand span is \_\_\_\_\_ centimeters \_\_\_\_\_ meter.

*Measure outstretched hand between tip of thumb & tip of little finger.*

7. Find the length of an unsharpened pencil (including eraser) in millimeters. \_\_\_\_\_

8. What is your height in centimeters? \_\_\_\_\_ What is your height in meters? \_\_\_\_\_

9. Find the distance between the two index cards in the hallway in meters. \_\_\_\_\_

10. Use your shoe and a metric ruler to complete this section. Keep your shoes on for this one!

- a. What is the length of your shoe to the nearest centimeter? \_\_\_\_\_  
b. How many shoes would it take (heel to toe) to make 1 meter? \_\_\_\_\_  
c. How many shoes would it take to make 1 kilometer? \_\_\_\_\_

11. Use ten pennies and a metric ruler to complete this section.

- (a) How tall is a stack of ten pennies in centimeters? \_\_\_\_\_  
(b) How tall would a stack of 100 pennies be in centimeters? \_\_\_\_\_  
(c) How tall would a stack of 1000 pennies be in centimeters? \_\_\_\_\_

12. Circle the BEST metric unit for each.

- (a) The length of an eyelash mm cm m km  
(b) The height of a flagpole mm cm m km  
(c) The length of a strand of spaghetti mm cm m km  
(d) The distance from Casa Grande to Phoenix. mm cm m km

## Part 2: Mass Lab

Choose items from the container on your table that will be closest to the targeted mass. You may use a single item or mix and match items to reach the targeted mass.

**Have your teacher check your estimates before you find the actual mass!**

Targeted Mass	Item(s)	Actual Mass
1 gram		
5 grams		
10 grams		
20 grams		
50 grams		
100 grams		
200 grams		
400 grams		

Circle the BEST metric unit for each.

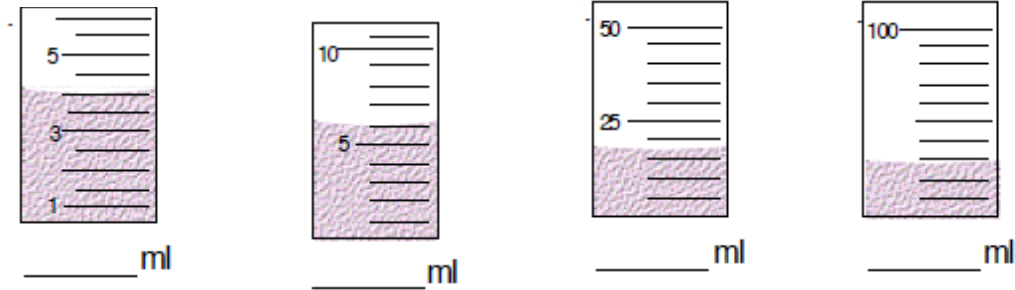
(1) Your mass:        mg        g        kg

(2) Amount of spices in a batch of cookies:        mg        g        kg

(3) Mass of 10 pennies:        mg        g        kg

## Part 3: Volume Lab

### Practice Reading Volume



### Count the Drops

Take a guess - How many drops of water will it take to equal 1 milliliter? \_\_\_\_\_ drops

Follow the directions to find the number of drops in 1 milliliter of water, then answer the questions. You will need a small graduated cylinder (25 ml), a beaker of water, and an eyedropper for this section.

- (1) Fill a small graduated cylinder with 10 ml of water.
- (2) Count the number of drops it takes to raise the water to 11 ml. Record the number in the chart.
- (3) Leave the water in the graduated cylinder and count the number of drops it takes to raise the water to 12 ml. Record the number in the chart.
- (4) Leave the water in the graduated cylinder and count the number of drops it takes to raise the water to 13 ml. Record the number in the chart.
- (5) Calculate your average and round to the nearest tenth.

# of drops to 11 ml	# of drops to 12 ml	# of drops to 13 ml	Average

Based on your average, how close were you to your guess? \_\_\_\_\_

Based on your average, how many drops would it take to make 1 liter? \_\_\_\_\_