

Metric Length Lab

Name: _____ Date: _____ Period: _____

Purpose: To identify how to make precise distance measurements, record the correct units that appropriately reflects the measurement, and convert metric units accurately.

Research:

King	Henry	Died	Monday	drinking	chocolate	milk
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

Experiment:

A. Team Measurements: As a team, record the following measurements. Notice any patterns?

Thumb Length: Measure from the tip of the thumb to the first knuckle (where it starts to bend)

<i>Student Name</i>			
<i>Thumb Length (cm)</i>			

Forearm to Foot: Measure from the wrist to the elbow. Measure the length of your foot (shoes off)

<i>Student Name</i>			
<i>Forearm Length (cm)</i>			
<i>Foot Length (cm)</i>			

Height to Wing Span: Remove your shoes and measure your height in cm. Next, stretch out your arms and measure from fingertip to fingertip.

<i>Student Name</i>			
<i>Height (cm)</i>			
<i>Wing Span (cm)</i>			

B. Individual Measurements: Make the following measurements and convert them into millimeters, meters, and kilometers when asked.

Line 1 - _____ = _____ cm
 Line 2 - _____ = _____ cm
 Line 3 - _____ = _____ cm

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What is the length of this lab paper?

_____ cm = _____ mm = _____ m = _____ Km

What is the width of this lab paper?

_____ cm = _____ mm = _____ m = _____ Km

What is your hand span from the tip of your thumb to the tip of your pinky finger?

_____ cm = _____ mm = _____ m = _____ Km

What is the length of your shoe?

_____ cm = _____ mm = _____ m = _____ Km

What is the width of your shoe?

_____ cm = _____ mm = _____ m = _____ Km

What is the width of your desk?

_____ cm = _____ mm = _____ m = _____ Km

What is the length of your desk?

_____ cm = _____ mm = _____ m = _____ Km

What is the height of your desk?

_____ cm = _____ mm = _____ m = _____ Km

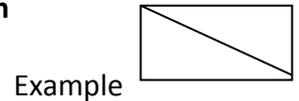
What is the width of your smile? (You might need some help for this one)

_____ cm = _____ mm = _____ m = _____ Km

Draw the following rectangles below then measure the distance from top left corner to bottom right corner

1. Rectangle A = 10 cm x 5 cm

2. Rectangle B = 8 cm x 4 cm



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Analysis

1. Look at the thumb measurements for the entire class on the whiteboard. Predict what the average thumb measurement is: _____ cm
2. How close are everyone's thumb measurements? What is the most frequent length?
3. Give a possible explanation for why that is?
4. How many centimeters different are your forearm and your foot? _____ cm
5. Do you think there is a relationship between a person's height and their foot size? Explain
6. How many centimeters different is your height from your wing span? _____ cm
7. Is there a relationship between a person's height and their wing span? Explain using data
8. Why do you think people do not record their height in kilometers? Explain
9. What are two advantages to using the metric system?
 - a. _____
 - b. _____
10. Find an item of approximately each length and write it on the line below.

- 5 mm _____
- 500 mm _____
- 40 cm _____
- 400 cm _____
- 1.2 m _____
- 12 m _____

