## Let’s Grow Metric!

You will not need to complete a Formal lab write-up for this lab.

## Purpose:

1. To review how to use metric measuring tools.
2. To record measurements in centimeters and kilograms
3. To track growth over the course of the school year.
4. To determine if there is a pattern or relationship between different body parts.

## Materials:

Flexible Metric Tape Measure, Metric Rulers, Meter Sticks, String, Scale


## Procedure:

You and your partner will measure various body parts using the metric system. Read these directions carefully so you know how to measure the following.

Height: Taped to the wall are two stacked meter sticks. Stand straight against the wall and have your partner place a ruler flat across the top of your head. Record your measurement in cm.
*Remember to take your shoes off during September and June measurements.
Head circumference: Keeping your head straight and eyes looking forward, have your partner take the tape measure and measure above your eyebrows, continue above the tips of your ears and all around your head. Record in cm.

Wrist circumference: Lay you arm on the table and have your partner wrap the measuring tape around your wrist. Record in cm.

Arm span: With your arms stretched, have your partners take the piece of string and measure from the tip of your middle finger, across your back, and to the tip of your middle on your other hand. Measure the string with your meter stick and record in cm .

Foot length: Take your shoe off your right foot and measure from the back of your heel to the tip of your big toe. Record in cm.

Hand span: Place your right hand on the table, palms down. Stretch out your fingers as far as you can. Pick up your hand and have your partner slide a piece of string underneath your pinky on one end and underneath your thumb on the other. Record the length of string in cm.

Elbow to wrist: Lay your forearm on the table, palms up, with your upper arm at a 90 degree angle. Measure from the crease on the inside of your elbow to the crease where your hand bends up at the wrist. Record in cm.

Weight: (Kilograms) Step on the scale with your shoes off. Measure your weight in pounds. Convert into kilograms. 1 kilogram = 2.2 pounds (lbs)

Name: $\qquad$ Date: $\qquad$ Hour: $\qquad$

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Data Table: Report measurements in centimeters and kilograms.

| Body Part | September | June | Difference |
| :---: | :--- | :--- | :--- |
| Height (Shoes Off) |  |  |  |
| Head Circumference |  |  |  |
| Wrist Circumference |  |  |  |
| Arm Span |  |  |  |
| Foot Length |  |  |  |
| Hand Span |  |  |  |
| Elbow to Wrist |  |  |  |
| Weight |  |  |  |

Analysis for September: Answer the following questions in complete sentences.

1. Looking at the data, which measurement was the longest? What was the measurement in cm ?
2. Looking at the data, which measurement was the shortest? What was the measurement in cm ?
3. Are there any sets of numbers similar in length? Explain and provide examples.
4. Take your shoes off and place your foot on your forearm between your elbow and your wrist. Explain what you observe.
5. Why is it better to measure your body part with cm rather than mm ?

Analysis for June: Answer the following questions in complete sentences.

1. Looking at the data, which measurement was the longest? What was the measurement in cm ?
2. Looking at the data, which measurement was the shortest? What was the measurement in cm ?
3. Looking at your data, what part grew the most since September? What was the difference in cm?
