METRIC MANIA

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_

MATERIALS:

3 cubes Graduated cylinder Ruler Meter stick

Cylinder Mystery liquid Balloon Stopwatch

Electronic scale Beaker of water Spring Scale Thermometer

SAFETY CONCERNS: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

MEASUREMENTS: Include d.o.f., uncertainty and units based on measuring tool. #5, 6 – do not worry about the uncertainty.

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Length of your stride, back toe 🡪 front heel **(m)**
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Temperature of room temperature water **(degrees C)**
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Volume of mystery liquid **(mL)**
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Time it takes for the balloon to hit the ground (starting at   
    lab desk height) **(s)**
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Volume of cube **(cm3)**
6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Volume of cube **(mm3)**
7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mass of cube **(g)**
8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Downward Force of cylinder **(Newtons - N)**

CONVERSIONS: Can be done outside of class. Show work.

1. Your stride (m) \_\_\_\_\_\_\_\_\_\_\_\_\_\_

* If her step took 1.0 seconds, how far did she travel in 1 hour?
* How many minutes would it take for her to travel 2 miles?

2. Room Temperature Water (Celsius) \_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Convert temperature in Celsius to Kelvin.

3. Mystery Liquid Measure (mL) \_\_\_\_\_\_\_\_\_\_\_\_\_\_ = 1 sample

* How many samples of the mystery liquid would it take to fill a 12 oz can of soda?

4. Balloon Drop Time (s) \_\_\_\_\_\_\_\_\_\_\_\_\_\_

* How many times could you drop the ball in a day?

5. Volume of cube (cm3) \_\_\_\_\_\_\_\_\_\_\_\_\_

* What is the volume (in cm3) of 4 cubes?

6. Volume of cube (mm3) \_\_\_\_\_\_\_\_\_\_\_\_\_

* What is the volume (in mm3) of 4 cubes?

7. Mass the cube (g) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* What is the mass of the cube measured in mg?
* What is the mass of the cube measured in lbs? (2.2 lbs = 1 kg)

8. Downward Force of cylinder (Newtons - N) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Is the downward force of the cylinder related to its weight? Explain.