

Procedure, and Observations and Data:

- **Length:** Using a piece of string, measure the crown of your head. Use the metric ruler provided to measure the string in millimeters, centimeters and meters. Record this data in Table 1.
- **Volume:** Using your graduated cylinder, measure the volume of the cups provided. You may have to fill your graduated cylinder more than once and add the total volume at the end. Use the permanent pen to write the volume of the cup. On the short cups, write the volume for every 20 ml. On the tall cup, write the volume every 10 ml. Write the total volume at the top of each cup. Record the data in Table 2 (Use the correct units).
- **Mass:** Using the metric balances, measure the masses of 3 of the metal square objects provided and record the results in Table 3.
- **Compare English/metric measurements:** At the reagent bench are some examples of English and Metric units for you to compare. For each pair of items, tell which is the larger. Using Table 3's format, make Table 4 and record your measurements in Table 4. Make some observations about how you learned to measure and how you could teach one of your own students in the future.

Data**Table 1: Length**

| mm | cm | m | Dm |
|-----------|-----------|----------|-----------|
| | | | |

Table 2: Volume

| | |
|--------------|--|
| Cup 1 | |
| Cup 2 | |
| Cup 3 | |

Table 3: Mass: Organize your own table**Table 4: English Metric Comparisons:** Organize your own table

Calculations

Convert the English measurements into metric using the English/Metric conversion table.

- a) 1 ounce =? grams

- b) 1 quart = ? liters

- c) 1 yard = ? meters

Questions and Answers:

Make sure you have the following questions answered by next class. Next class's quiz will refer back to these questions.

- What is de-ionized water and when do you use it?

- What do you do at the end of every lab?

- What are the special waste containers, and what are they used for?
