

Name \_\_\_\_\_

Period \_\_\_\_\_

## Measurement Lab

This lab is designed to give students practice in using a triple beam balance, graduated cylinder and meter stick to make metric measurements of mass, volume and length.

Students will work individually in this lab, and each student must fill out his own lab report worksheet.

1. The teacher will give you one numbered block of wood and one small numbered rock in a plastic bag. You will also need a ruler marked in centimeters, and a graduated cylinder.
2. On a triple beam balance, measure the mass of the small rock and block of wood. Record the two mass measurements in the spaces below. Record the number written on both the block of wood and rock.
3. Using the metric ruler, measure the length, width and height of the wood block, in centimeters. Record the results in the spaces below, and calculate the volume.
4. Using the graduated cylinder, measure the volume of the rock, by first partially filling the graduated cylinder with water, recording the volume, then putting the rock in the partially filled graduated cylinder and noting the new volume. Subtract the first volume from the second to get the volume of the rock.
5. Record the temperature of the water in the beaker being heated on the hot plate. Record the temperature of the water in the ice filled beaker.
6. Record the amount of water in the 500mL, 100mL and 50mL graduated cylinders. Be sure to read straight across from the bottom of the meniscus.

Wood Block Number: \_\_\_\_\_

Volume of Wood Block: \_\_\_\_\_ cm x \_\_\_\_\_ cm x \_\_\_\_\_ cm = \_\_\_\_\_ cm<sup>3</sup>

Mass of Wood Block: \_\_\_\_\_ grams.

Rock Number: \_\_\_\_\_

Volume of Rock:  $\frac{\text{_____ mL}}{\text{(rock + water)}} - \frac{\text{_____ mL}}{\text{(water w/o rock)}} = \frac{\text{_____ mL}}{\text{(rock)}}$

Mass of Rock: \_\_\_\_\_ grams.

Temperature of water in beaker on hot plate: \_\_\_\_\_ °C.

Temperature of water in beaker on ice: \_\_\_\_\_ °C.

Amount of water in 500 mL graduated cylinder: \_\_\_\_\_ mL.

Amount of water in 100 mL graduated cylinder: \_\_\_\_\_ mL.

Amount of water in 50 mL graduated cylinder: \_\_\_\_\_ mL.