Metric System Notes

**Length**

* The basic unit of length in the metric system is the **meter** and is represented by a lowercase **m**.
* Standard: The **distance** traveled by **light** in absolute vacuum in 1⁄299,792,458 of a second.

**Mass**

* **Mass** refers to the amount of matter in an object.
* The base unit of mass in the metric system in the **gram** and is represented by **g**.
* Standard: 1 kilogram is equal to the mass of the **International Prototype Kilogram** (IPK), a platinum-iridium cylinder kept by the BIPM at Sèvres, France.

How to use a Triple Beam Balance:

1. Place the item on the scale
2. Slide the large weight to the right until the arm drops below the line. Move the rider back one groove. Make sure it “locks” into place.
3. Repeat this process with the top weight. When the arm moves below the line, back it up one groove.
4. Slide the small weight on the front beam until the lines match up.
5. Add the amounts on each beam to find the total mass to the nearest tenth of a gram.

**Volume**

* **Volume** is the amount of space an object takes up.
* The base unit of volume in the metric system in the **liter** and is represented by **L or l**.
* Standard: 1 liter is equal to one cubic **decimeter**
* We will be using **graduated cylinders** to find the volume of liquids and other objects.
* Read the measurement based on the bottom of the **meniscus** or curve. When using a real cylinder, make sure you are eye-level with the level of the water.
* We can measure the volume of regular object using the formula **length x width x height**.
* We can measure the volume of
irregular object using **water displacement**.

http://resources.edb.gov.hk/~s1sci/R\_S1Science/sp/en/syllabus/unit14/new/testingmain1.htm

10 cm

9 cm

8 cm