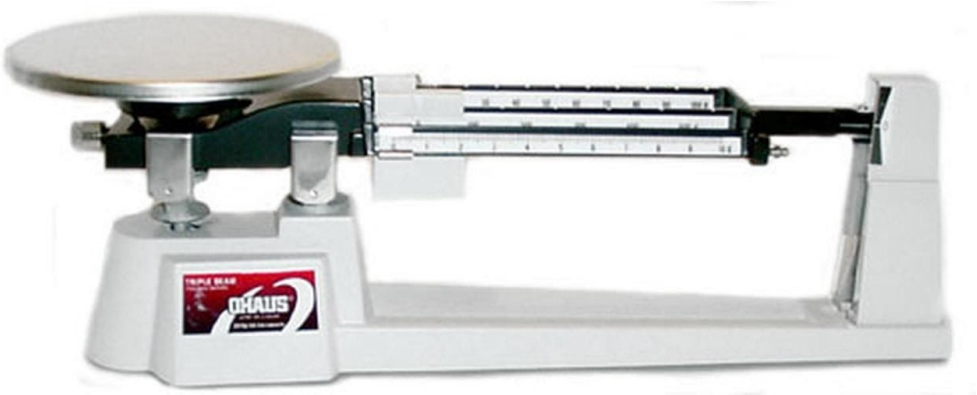
Measurement: Grade 7: Lesson 3

MEASUREMENT

Welcome Back students. In the last lesson, we learnt about Measuring Length. In this Lesson, we will be focusing on Mass.

1) Mass refers to the amount of Matter in an Object. We use many different Objects to measure mass. Such as: The Triple Beam Balance and The Electronic Balance. These two are the objects that most people use in a Lab to measure Mass.



TRIPLE BEAM BALANCE

ELECTRONIC BALANCE

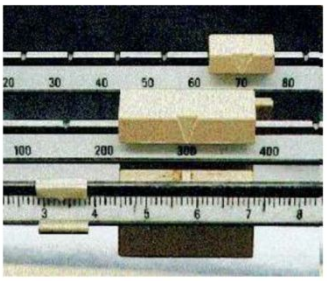
ELECTRONIC BALANCE

2) How to use them:
Triple Beam Balance

- The objects are placed on the scale and then you move the weights on the beams until you get the lines on the right-side of the scale to match up. Watch this video to learn how to use a triple beam balance!

https://youtu.be/BAf6HoVK6JI

Now that you have watched the video, please answer this question!



What would be the mass of the object measured in the picture?

____ + ____ + ____ = ____ g

Electronic Balance

- To use an Electric Balance, place it on a flat surface (Minute factors and wind, shaky surfaces, or similar forces will cause the readings to be inaccurate.) , press the 'ON' button, and wait until you see Zeros. Press the "Tare" or "Zero" button to automatically deduct the weight of the container from future calculations. The digital display will show zero again, indicating that the container's mass is stored in the balance's memory. Carefully add the substance to the container. Afterwards, record the mass indicated.

Now that you have read that small passage, answer the Question Below.

-What Button do you press to automatically deduct the weight of the container from the scale?_____.
-Why must you place the scale on a flat, uninterrupted surface?
_____.

3) **Units of Measurement:**
When measuring Mass, the common units used, and their signs are shown below.

UNITS OF MEASUREMENT	**SYMBOLS**
Kilogram	kg
Gram	g
Milligram	mg

3.1) **Conversions: Watch this video, and then do the exercise below!**
VIDEO: https://youtu.be/ptrKThVQwh4

Please work these questions!

1) ***8kg= ? g***
2) ***50000g= ? kg***
3) ***7,000,000 mg= ?kg***
4) ***9kg= ?mg***
5) ***2000 mg= ? g***

4) **SCRATCH CHALLENGE:**
For this scratch challenge, you will do an animation, explaining one of the Two Balances we discussed in this lesson today. Your character will measure an item on the Balance of your choice, and state it's mass. I recommend deciding what Item you will measure, and its weight before you do your animation, that way, the answer that you will give, will reflect the item truly and accurately. Remember to have fun!

Here are some useful resource links:
https://www.dummies.com/programming/how-to-add-sound-for-a-scratch-character/
https://youtu.be/BdBV-Cy9fNg