NAME:		
BLOCK:	DATE:	

Measuring Matter: Mass, Weight, and Volume

Now that we understand the KMT, we can talk about **DENSITY**. Density requires knowledge of mass and volume.

MASS: <u>Amount of matter in an object</u>

measured in grams (g) or kilograms (kg)

Mass is different from WEIGHT

gravity _____pulling on an object. WEIGHT: Force of ____

- •
- Measured in <u>Newtons</u>. The weight of objects is <u>lower</u> on the moon since the moon's gravity is $\frac{1}{6}$ that of the Earth's.

MEASURING MASS USING A TRIPLE BEAM BALANCE

There are various types of laboratory balances. The triple beam balance you use may look somewhat different from the one in the Figure below, however all beam balances have some common features.



DIGITAL/ELECTRONIC BALANCE



TRIPLE BEAM BALANCE



Practice Question:

What is the mass indicated by the triple beam balance on the left?

545.2g

VOLUME:

Volume: amount of space occupied by an object

<u>_cm`</u>

Measuring Volume:

- A. Volume of LIQUIDS:
 - use a graduated cylinder or beaker
 - read at eye level
- read from bottom of **meniscus** (curved surface of water)

K Practice Question: What is the volume in this diagram? ----->

66mL or 66.5mL

B. Volume of RECTANGULAR SOLIDS:



Sources

