MATTER: PROPERTIES, MASS AND VOLUME

NAME: _____ **DATE:** _____

•**Match** each word with its tool to measure.

Mass

Volume

•**Match** each word with its units of measurement.

Mass

Volume

Grams (g), kilograms (kg), pounds (lb)

Cubic meter (m^3), cubic centimeter (cm^3), liter (L) or mililiter (ml)

•**Choose** Volume [v] or Mass [m] according to the sentence.

- You can measure it with a balance or scale on earth [v] [m]
- You can measure it in grams [v] [m]
- You can measure it with a graduated cylinder [v] [m]
- Is the amount of matter an object contains [v] [m]
- Is the amount of space that something occupies [v] [m]
- You can measure it in liters [v] [m]

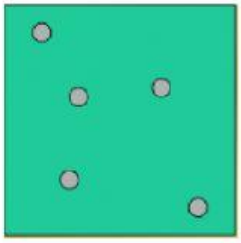
•**Mass** is the amount of matter in an object, you can imagine it like a box with particles inside.

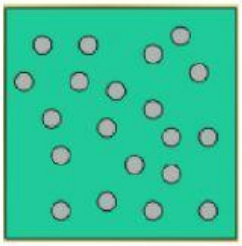
The more particles inside of an object, the more matter it has.

Or in other words…

The more particles inside, the more mass it has.

Select the box with more mass.





•**Supose you fill two boxes of same size, one with cotton and other with sand.** Which one will have more mass?

- ☐ The box with cotton
- ☐ The box with sand

•**Now let's change things a little.**

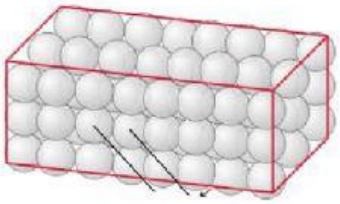
Suppose you need to buy 2 kilograms of cotton and 2 kilograms of sand.

Which one will have more mass?

- ☐ The 2 kilograms of cotton
- ☐ The 2 kilograms of sand
- ☐ Both have the same mass

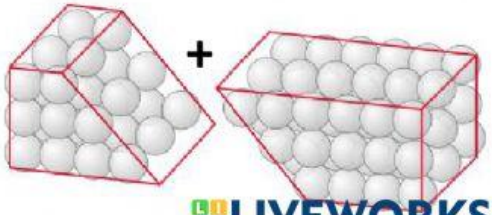
•**Suppose you cut in half the 2 kilograms box that has cotton, like in the image.**

What will be the sum of the **mass of the two new boxes** of cotton?



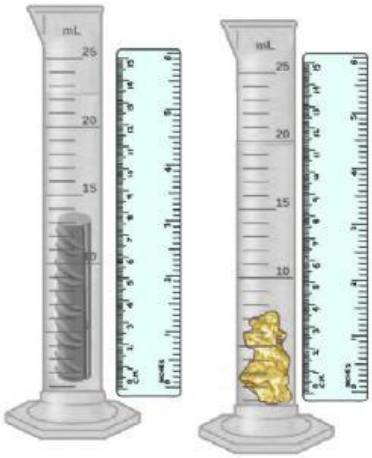
- ☐ The **total mass** will be 2 kilograms
- ☐ The **total mass** will be 1 kilogram
- ☐ There is no way to know the **total mass**

total mass is the sum of the pieces



•**Choose the correct way to measure the volume of a piece of gold and a piece of iron.** 

☐ Place the iron bar in an empy cylinder and measure with a ruler the mark it reaches, same with the gold piece.



☐ Place water in each graduated cylinder, then put the iron bar in one cyclinder, the gold piece in other cylinder and see how much water rises.

☐ Place water in a graduated cylinder, then put the iron bar and the gold piece in the same cylinder. Then see how much water rises and divide that number in two.