

# Notes on Matter

(just the underlined words)

By Ms Toal

# Matter

- The name of this unit is \_\_\_\_\_
- What is matter?
- Some matter is easy to see, like \_\_\_\_\_
- Some matter is not easy to see, like \_\_\_\_\_
- Matter
- Anything that has mass and takes up space
- Pencil, tree
- Air, gases,

# Describing matter

- What are the four properties of matter?
- Mass
- Weight
- Volume
- Density

(just the underlined words)

- MASS
- mass is the amount of matter in an object.
- Everything in the Universe that has mass is affected by gravity.

# Just the underlined words

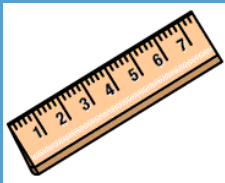
- WEIGHT • is the measure of the gravitational pull on an object.
- Weight = MASS X GRAVITY
- The gravitational force exerted on Earth is *about* the same everywhere on Earth, so you would WEIGH the same around the world.

Just the underlined words

- VOLUME
- is the amount of space that an object takes up or occupies.
  - An object can be solid, liquid, or a gas.
  - What are some examples of a gas?

# There are two ways to find volume:

- Directly



- use a ruler to find  
(L X W X H)  $CM^3$

- Indirectly



- use a graduated  
cylinder and  
measure how much  
water is displaced.

$ml$

(also known as specific gravity)

- DENSITY

- is the amount of matter (mass) in a given space (volume).

- Can you think of two things that have two different densities?



# Properties and measurements

- Mass
  - g (grams),
  - kg (kilogram)
  - mg (milligram)
- Weight
  - (mass X gravity) = g, kg
- Volume
  - $\text{cm}^3$
  - ml (milliliter),
  - L (liter)
- Density
  - g/ml
  - $\text{g/cm}^3$