

Matter is anything in the universe that has mass + takes up space

What is MASS? the amount of matter in an object

How can we find an object's mass?

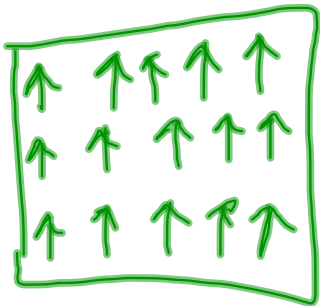
① Put the object on a scale and weigh it (measure it!)

② Calculate it using the relationship:

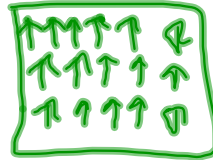
$$\text{Mass} = \text{Density} \times \text{Volume}$$

⇓
how close together
(or how far apart)
the matter in
an object is

⇓
the amount
of space
something
takes up!

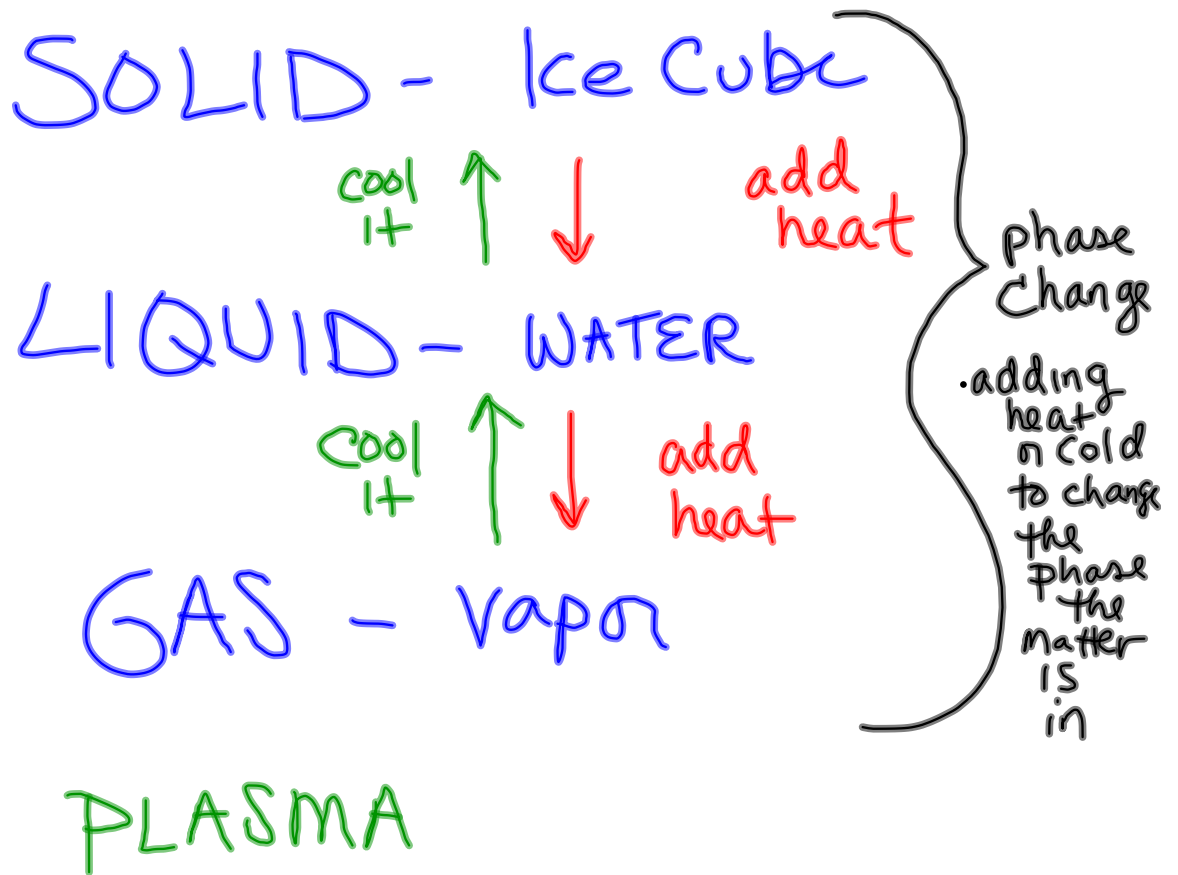


15 trees

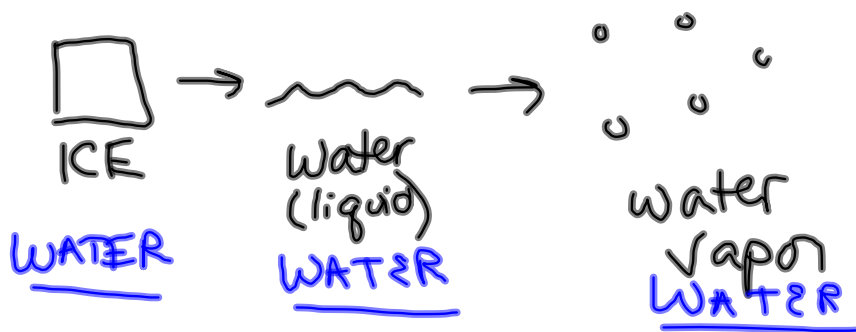


15 trees

Three main PHASES of matter



Physical Change -
any change that alters the
appearance of a substance
but doesn't change the
substance into any new substances

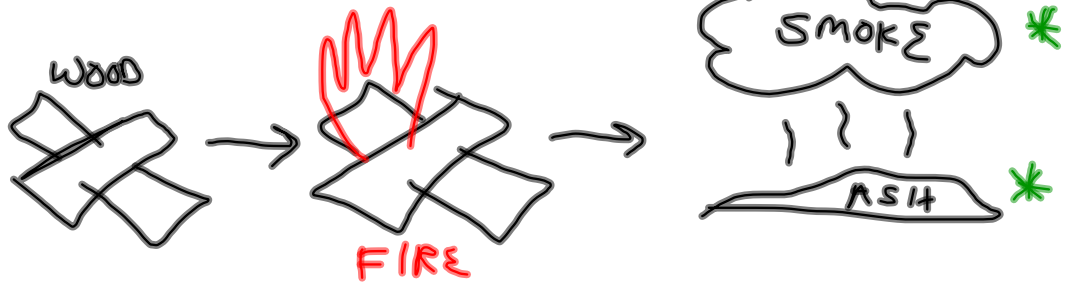


Chemical Change -

any change that chemically alters a substance and

produces new substances

by rearranging the atoms + molecules that are already there



Law of
Conservation
of Matter - Matter can
not be created or destroyed
In a chemical reaction, it
can only change form.

