

Physical and Chemical Changes



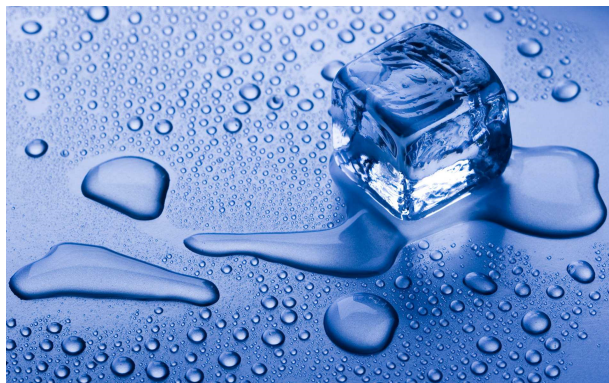
Physical Changes

The FORM of a substance changes, but not what it is made of



Physical Changes

Many physical changes can easily be reversed by changing temperature.



Phase changes = physical changes



Chemical Changes

There is a change to arrangement of atoms in the compounds.

A new substance (or substances) are formed.

"Switching seating charts"

"Build new things out of the Legos"

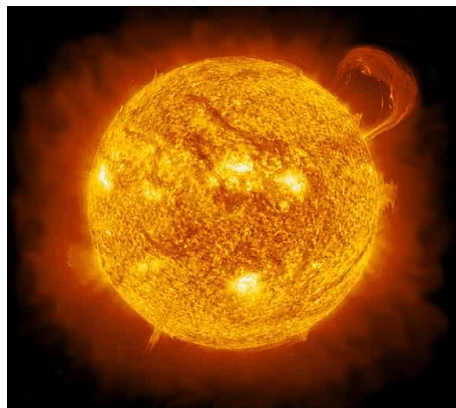
Evidence that you have seen a
chemical change:

Color changes



Evidence that you have seen a
chemical change:

Energy is given off as heat or light



Evidence that you have seen a chemical change:

Energy is absorbed



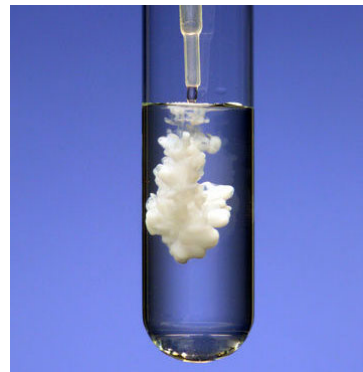
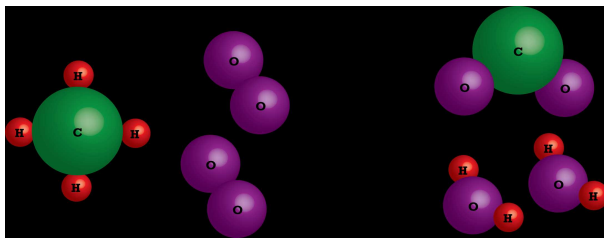
Evidence that you have seen a
chemical change:

The smell changes



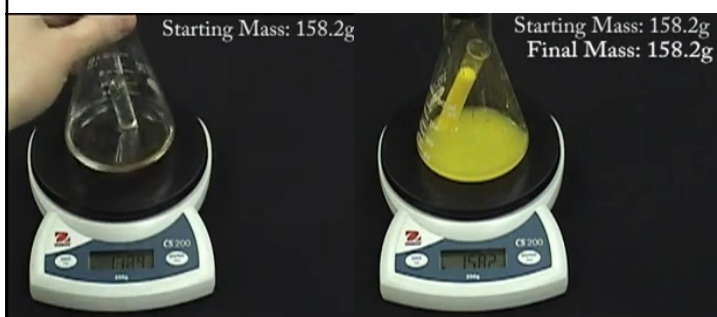
Evidence that you have seen a chemical change:

New solids, liquids, or gases are produced



The Law of Conservation of Mass

Matter can be neither created nor destroyed. It can only change form.



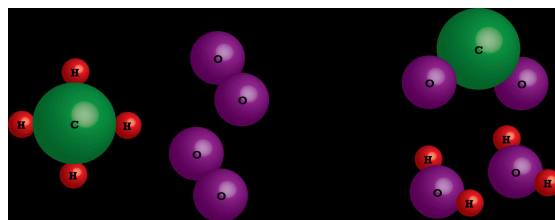
All atoms in reactants must be present in the product—just made into new compounds



before = after

The Law of Conservation of Mass

In other words:



The mass of the reactants
will equal the mass of the products.

(mass before = mass after)

(sound familiar??)

A cool video:

<https://www.youtube.com/watch?v=J5hM1DxaPLw>



Chemical or Physical Changes?:

Video 1: Chemical or Physical Change?



Video 2: Chemical or Physical Change?



Video 3: Chemical or Physical Change



Video 4: Chemical or Physical Change?



Video 5: Chemical or Physical Change?

