

Success 24/7 Chemistry: Balancing Chemical Equations Notes

Decoding Chemical Equations

A chemical equation is a representation of a chemical reaction.

A chemical reaction is the changing of substances by the breaking of bonds in reactants and the formation of bonds in products.

What you need to know:

	Reactants	→	Products
+			(aq)
→			↔
(s)			N.R.
(l)			Δ
(g)			catalyst

(Δ (light or heat) & catalysts are written above the yield sign)



Balancing Chemical Equations

What is a balanced equation?

of atoms of each element in reactants = # of atoms of each element in products

Why do we do this?

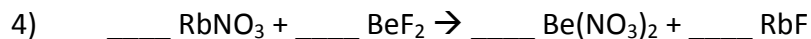
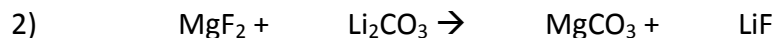
To follow the Law of Conservation of Mass (mass cannot be created nor destroyed...).

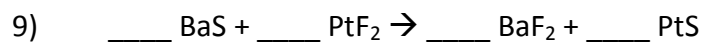
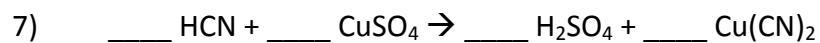
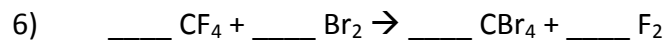
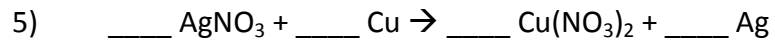
Basically, what is in the beginning of the reaction must be present once the reaction is over.

How do we do this?

- Use pencil
- Look at elements one at a time
- If there is a polyatomic ion that appears on both sides of the chemical equation, treat it as one unit.
- Balance H & O last. (The one that is in the most spots should be the last one balanced.)
- Practice...a lot!

Practice time!





“Increased Difficulty” Practice!

