

Chemical Changes



Reaction

a new substance must form!

Evidence of a chemical reaction

- 1.) permanent color change
- 2.) permanent odor change
- 3.) gas bubbles form
- 4.) a solid forms from 2 liquids (precipitation)
- 5.) water form
- 6.) change in temperature (energy change)

Terms

- 1) reactant - starting substances in a reaction
- 2) product - new substances formed in a reaction
- 3) \rightarrow yields (to product) separates reactants from products
- 4) $+$ separates 2 reactants (products) from each other
- 5) (s) solid
- 6) (l) liquid
- 7) (g) gas
- 8) (aq) aqueous, in solution (dissolved in H_2O)
- 9) vapor gas
- 10) solution dissolved in water

7 Diatomic Molecules

There are 7 elements that exist as 2 atoms bonded together in a molecule when they aren't bonded to another element!

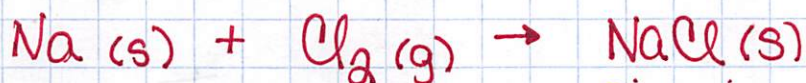


Representing a Chemical Reaction

SKELETON EQUATIONS

uses chemical formulas and the terms on the previous page to represent a reaction
(it's the bare minimum way to describe a reaction)
Bare Bones

Ex) Sodium metal reacts with chlorine gas to produce sodium chloride crystals.



calcium metal reacts with nitric acid solution to produce hydrogen gas and a solution of calcium nitrate.



Solid potassium chlorate decomposes into solid potassium chloride and oxygen gas.



Solutions of sulfuric acid and sodium hydroxide react to produce water and a solution of sodium sulfate.

