

Salts

PowerPoint 5.2

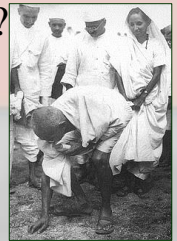
Classification of Compounds

How many different ways are individual *compounds categorized?*

➤ Ionic compounds versus Covalent compounds

➤ Acids and bases

➤ Salts



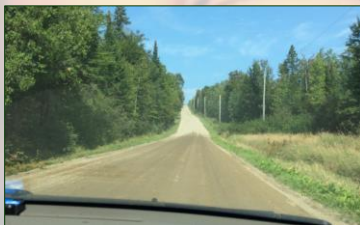
CaSO₄



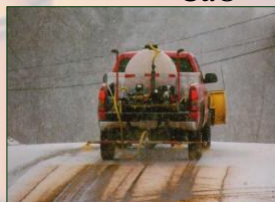
CaO



(NH₄)₂SO₄



CaCl₂



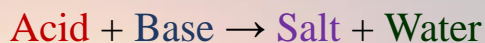
MgCl₂



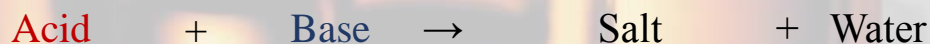
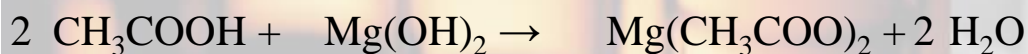
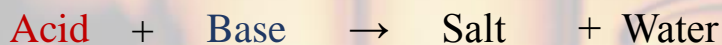
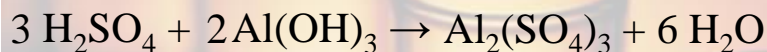
NaCl, and KI and NaI

Salts

Salts are ionic compounds that can be formed during the chemical reaction between an acid and a base.

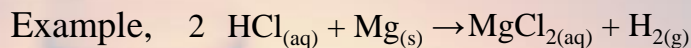
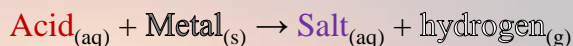


Try writing the products of the following reactions,



Other Reactions with Acids that Produce Salts

Metals react with acids to produce salts and hydrogen gas, H_2 .



Carbonates react with acids to produce salts and hydrogen gas, H_2 .

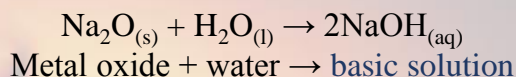


Oxides

An ***oxide*** is a compound that contains at least one oxygen atom or ion along with one or more other elements.

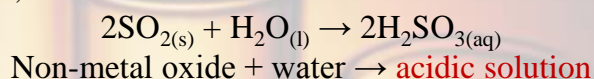
Metal oxides contain oxygen bonded to a metal.

- When placed in water, metal oxides form **basic solutions**.



Non-metal oxides contain oxygen bonded to a non-metal.

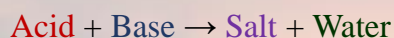
- When placed in water, non-metal oxides form **acidic solutions**.



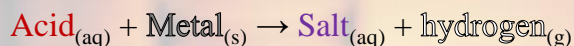
- Acid rain can form from non-metal oxides and water,

Summary

Reactions involving acids and bases



Neutralization reaction



Metal and acid reaction



Carbonate and acid reaction



Metal oxide and water



Non-metal oxide and water