Reaction Part 2 Metals and Non-Metals

Knowledge Organiser



When a metal reacts with an acid it will produce a salt and hydrogen gas, the fizzing that you see is the hydrogen gas being given off

magnesium + hydrochloric acid → magnesium chloride + hydrogen

When a metal reacts with oxygen a metal oxide is formed, this process is known as oxidation

- When a metal reacts with water it forms a metal hydroxide and hydrogen gas.
- The alkali (group 1) metals react most vigorously, giving off a brightly coloured flame

When a more reactive metal reacts with a compound containing a less reactive metal, it can take it's place, this is known as a displacement reaction



- If the metal on it's own is higher in the reactivity series than the metal in the compound a reaction will take place
- If the metal on it's own is lower in the reactivity series than the metal in the compound, a reaction will not take place
 - The reactivity series describes how reactive different metals are compared to one another
 - The higher the metal is in the reactivity series the more reactive it will be this means that it will react much more vigorously



Key Terms make sure you can write definitions for each of these key

acid	acidic	alkali	Alkaline	base	chemical	Chemical reaction
Concentration	concentrated	corrosive	displacement	hydroxide	indicator	irritant
neutral	neutralisation	oxide	oxidation	pH scale	reversible	reactivity
Reactivity series	salt	Strong acid	Universal indicator	Weak acid		_