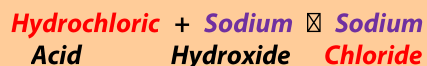


1. Chemistry

Naming Salts:

Take the first part of the alkali and the salt ending from the acid to name the salt.



Salt Endings

Hydrochloride acid = *chloride*
 Sulphuric acid = *sulphide*
 Phosphoric acid = *phosphate*
 Nitric acid = *nitrate*

2. Chemistry

Acids and Metals:

When adding a metal to an acid the following reaction happens:



Only certain metals will react with acid. Very unreactive metals such as gold or silver will not react at all.

We can test for the reaction by testing for hydrogen. This is done with the squeaky pop test.

Neutralisation:

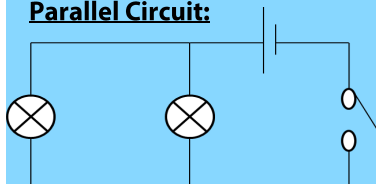
When an acid is added to an alkali the following reaction happens:



This is called neutralisation because the pH is now 7.

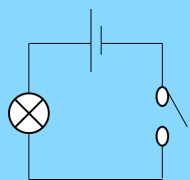
1. Physics

Parallel Circuit:



Parallel circuits contain extra loops whereas series circuits have just one loop.

Series Circuit:



Current and Voltage in series and parallel circuits are either shared or the same:

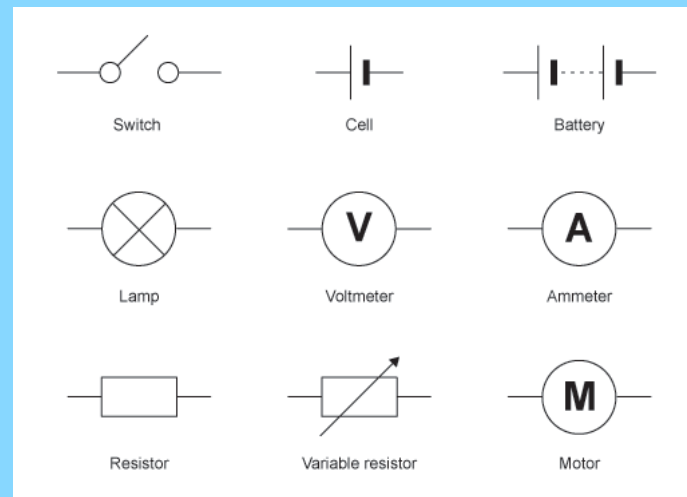
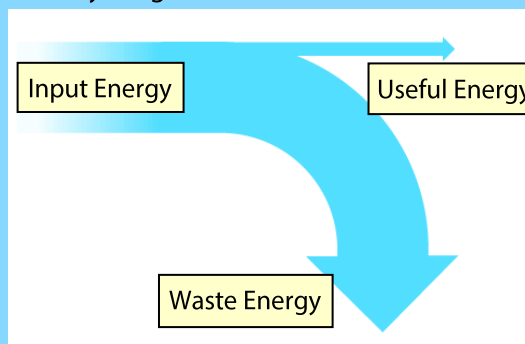
	Series	Parallel
Current	SAME	SHARED
Voltage	SHARED	SAME

Resistance is a measure of how hard it is for electrons to move in an electrical circuit.

It is calculated by:

$$\text{Resistance } \Omega = \text{Voltage (V)} \div \text{Current (A)}$$

Sankey Diagram:



2. Physics

Energy is a quantity (a number in joules) that tells you what **is possible**, but does not tell you what will happen.

Energy Stores:

- Chemical
- Thermal
- Kinetic
- Gravitational
- Electrostatic
- Nuclear
- Elastic
- Magnetic

Energy Pathways:

- Mechanical
- Electrical
- Heating by particles
- Heating by radiation