- Alkaline metals react with water to form alkaline solutions of the metal hydroxide
- Alkali + Acid → Salt + Water (This is a neutralisation reaction)

What was alkalis used for:

- To neutralise acid soils
- To convert fats and oils to soaps
- To make glass
- To make chemicals that bind natural dyes to cloth

Nitric acids produces nitrate salts

Sulfuric acid produces sulfate salts

Hydrochloric acid produces chloride salts

Phosphoric acid produces phosphate salts

Remember an alkali can be a metal carbonate, metal oxide or metal hydroxide

METAL CARBONATE + ACID → SALT + CARBON DIOXIDE + WATER

METAL OXIDE + ACID → SALT + WATER

METAL HYDROXIDE + ACID → SALT + WATER

Electrolysis

Splitting up chemicals into its element by passing an electronic current through it

Chemicals from salt solution

'Electrolysis' can cause chemical change. The word 'electrolysis', means using electricity to split something up. 'Brine' is a salt and water solution: NaCl (aq), Brine contains sodium, chloride, oxygen and hydrogen. Electrolysing brine makes: H2 Gas, Cl2 Gas and NaOH (aq) alkali.

Ions: An electrically charged atom

Electrode: A conductor made of metal or graphite through which a current enters or leaves a chemical during electrolysis. Electrons flow into a negative electrode (catnode) and out of a positive electrode (anode).

Uses of chemicals from salt

Chlorine	**Sodium hydroxide**	**Hydrogen**
To treat drinking water and waste water	To make bleach	**To make hydrochloric acid**
To make bleach	**To make soap and water**	**As a fuel to produce steam**
To make hydrochloric acid	**To process food products**	