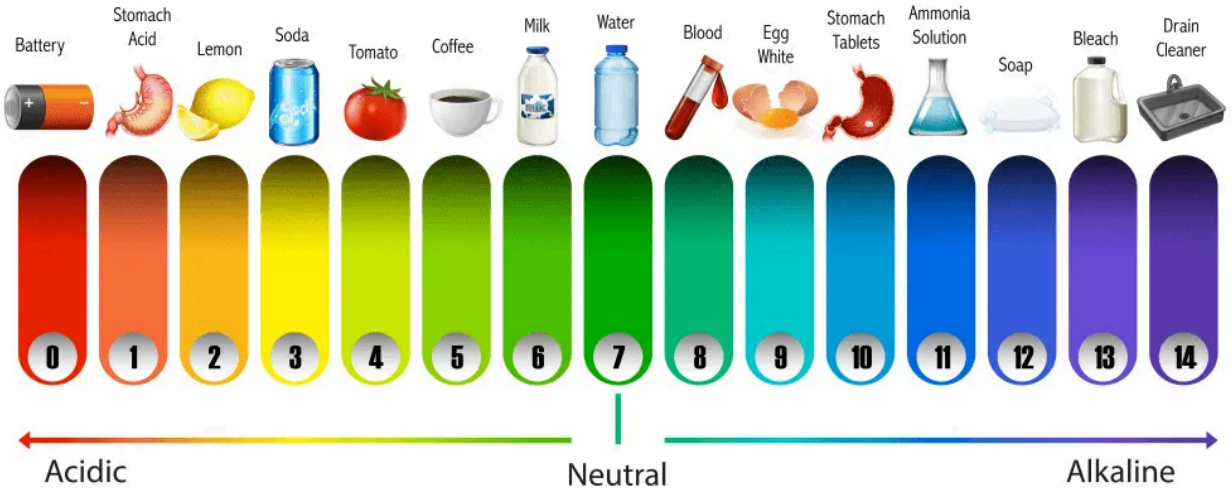
Chemistry

Chapter 4

Acids and bases

The pH scale

- The pH scale measures how acidic or alkaline a solution is
- Low pH means more acidic
- high pH means less acidic
- Neutral substances like pure water has pH of 7
- pH scale goes from 0 to 14



- Indicator a dye that changes colour depending on the pH
- Wide range indicators mix of dyes that changes gradually over range of PH example universal Indicator
- PH Probe attached to pH metre and it measure your pH electronically more accurate than indicators



Neutralization

- Acid forms H+ ions in the water
- Base reacts with an acid to form salt
- Alkali is the base that is also in the water and it forms OH- ions
- The pH of water is 7
- neutral products have ph 7

- indicator can show when neutralisation is completed

Acid + Alkali = Salt + water

H+ + OH- = NaCl + H20

- When you combine acid and alkali then there is neutralization reaction means water will form

Strong and weak acids and their reaction

What are acids

- Acid produce protons in water
- H+ positive ion is only a Proton
- When acid dissolves in water they ionizes and released H+
- Example HCL in the water and it will become h positive and Cl negative

Weak acids

- Weak acids example are ethanoic and citric acid and carbonic acid
- The reaction goes both ways molecules that stays together and molecules that breakup apart
- Because only a few particles ionises the balance stays mostly on the left side