

1: Chemistry- Electronic Structure

Electron negative subatomic particle found in shells around the nucleus

Electron Shell the outside part of an atom around the atomic nucleus

Periodic Table a table of the chemical elements arranged in order of atomic number

Group a column in the periodic table in which elements have the same number of outer shell electrons

Period a row in the periodic table in which elements have the same number of shells

| Energy Level | Number of Electrons |
|--------------|---------------------|
| 1 | 2 |
| 2 | 8 |
| 3 | 8 |

2: Chemistry- History of the Atom

| Scientist | Model | Description |
|--------------------------|--------------------|---|
| John Dalton | Solid Sphere Model | small, solid, inelastic spheres |
| J.J Thompson | Plum Pudding Model | negative electrons evenly spaced in a positive mass |
| Ernest Rutherford | Nuclear Model | mostly empty space with a positive mass in the centre |
| Niels Bohr | Planetary Model | electrons are in shells which orbit the nucleus |

3: Chemistry- Ions and Isotopes

Ion an atom or molecule with an electric charge due to the loss or gain of electrons

Positive Ion an atom or molecule with a positive charge due to the loss of electrons

Negative Ion an atom or molecule with a negative charge due to the gain of electrons

Isotope atoms of the same element with the same number of protons but a different number of neutrons

Model a description or analogy that explains the physical world

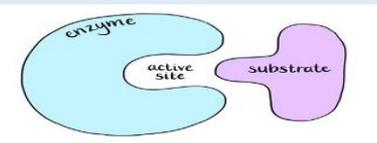
4: Biology- Enzymes

Enzyme a biological catalyst made from protein

Active Site the specific part of an enzyme to which a specific substrate binds to

Substrate a substance on which enzymes act

Denature to change the shape of an enzyme's active site e.g. due to high temperature



5: Biology- Respiration

Respiration the chemical process that releases energy for life processes

Aerobic a process that involves oxygen

Anaerobic a process that does not involve oxygen

Mitochondria The site of aerobic respiration

Lactic Acid a waste product that is produced from anaerobic respiration

Aerobic Respiration Word Equation
glucose + oxygen → carbon dioxide + water

Anaerobic Respiration (in animals)
glucose → lactic acid

6: Biology- Photosynthesis

Photosynthesis a series of chemical reactions in a plant that produce glucose

Stomata small openings on the lower surface of a leaf where gas exchange occurs

Chloroplasts the site of photosynthesis

Limiting Factor a factor or condition that affects the rate of photosynthesis (e.g. temperature, light intensity and carbon dioxide concentration)

Uses of Glucose in Plants respiration, seeds, storage, cellulose, protein synthesis

Photosynthesis Word Equation
carbon dioxide + water → glucose + oxygen