

# Year 10 Science Curriculum Overview

## Biology

Cell Biology - Cells, Cell Division (Mitosis), transportation (Osmosis and Diffusion)

Organisation - Digestive System, Enzymes, Circulatory System, Heart, Blood and Plant Cells.

Infection and Response - Pathogens, Immune System, Vaccinations, Antibiotics and Plant Disease.

Biogenetics - Photosynthesis, aerobic and anaerobic respiration

## Chemistry

Atomic structure and the periodic table - atoms, elements, compounds

Bonding, Structure and Matter - ionic, covalent and metallic bonding, states of matter

Quantitative Chemistry - Relative Formula Mass, Conservation of Mass, Moles and Reacting Masses

Chemical Changes - Reactivity Series, Extraction of Metals, Electrolysis

Energy Changes - Exothermic and Endothermic Reactions, Energy Profiles

## Physics

Energy - Energy stores and transfers, energy efficiency, heat capacity

Electricity - Current, Potential difference, Resistance, Series and Parallel Circuits, Mains Electricity

Particle Model of Matter - States of Matter, Density, Changes of State, Internal Energy

Atomic Structure - Structure of the Atom, Isotopes, Nuclear Radiation, Half-life and Radiation Uses