



Year 10 – Overview

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
P6 Particle Model and C3 Structure and bonding and C4 Chemical calculations	P7 Radioactivity and P4 Electric Circuits C5 Chemical changes & C7	P5 & P15 Electricity & EM and C6 Electrolysis and C7 Exothermic and Endothermic reactions	B5 and B7 Disease and plants and C8 Rates of reaction	B6 Preventing disease and P8, P9 & P10 Forces	B10 The human nervous system & B11 Homeostasis and P11 Waves
→Relative masses and moles. →Equations and calculations. →From masses to balanced equations. →Expressing concentrations. →Density. →State of matter. →Internal energy. →Specific latent heat. →Gas pressure and temperature.	→ Atoms and radiation. →Discovery of the nucleus. →Changes in the nucleus. →More about alpha, beta and gamma radiation. →Activity and half-life. →Nuclear issues. →Electrical charges and field. →Current and charge. →Potential difference and resistance. →Component characteristics. →Series circuits →Parallel circuits. →Reactivity series. →Displacement reactions. →Extracting metals. →Salts from metals. →Salts from insoluble bases. →Making more salts. →Neutralisation and the pH scale. →Strong and weak acids.	→Alternating current. →Cables and plugs. →Electrical power and P.D. →Electrical current and energy transfer. →Appliances and efficiency. →Magnetic fields. →Magnetic fields of electrical current. →Electromagnets in devices. →The motor effect. →Introduction to electrolysis. →Changes at the electrodes. →Extraction of aluminium. →Electrolysis of aqueous solutions. →Using energy transfers from reactions. →Reaction profiles. →Bond energy calculations.	→Health and disease. →Pathogens and disease. →Preventing infections. →Viral diseases. →Bacterial diseases. →Diseases caused by fungi and protists. →Human defence responses. →Non-communicable diseases. →Cancer. →Smoking and the risk of disease. →Diet, exercise and disease. →Alcohol and other carcinogens. →Rate of reaction. →Collision theory and surface area. →The effect of temperature. →The effect of concentration or pressure. →The effect of catalysts. →Reversible reactions. →Energy and reversible reactions.	→Vaccinations →Antibiotics and painkillers. →Discovering drugs. →Developing drugs. →Vectors and scalars. →Forces between objects. →Resultants forces. →Moments at work. →Levers and gears. →Centre of mass. →Moments and equilibrium. →The parallelogram of forces. →Resolution of forces. →Speed and distance-time graphs. →Velocity and acceleration. →Analysing motion graphs. →Forces and acceleration. →Weight and terminal velocity. →Forces and breaking. →Momentum.	→Principles of homeostasis. →The structure and function of the human nervous system. →Reflex actions. →Principles of hormonal control. →Control of blood glucose levels. →The role of negative feedback. →Treating diabetes. →Human reproduction. →Hormones and the menstrual cycle. →The artificial control of fertility. →Infertility treatments. →Pressure and surfaces. →Pressure in a liquid at rest. →Atmospheric pressure. →Upthrust and floatation. →The nature of waves. →The properties of waves. →Reflection and refraction. →More about waves.