



Curriculum Map- Science

Below is a curriculum map, showing what is taught at each stage of the year.

	Term 1	Term 2	Term 3
Year 7	● Introduction to science ● Energy-Energy stores and transfers ● Particle model- states of matter and changes of state ● Interdependence- feeding relationships,classification and adaptation ● Forces -contact and non contact forces.Newtons 1st and 2nd law.	● Elements and the periodic Table- elements and the properties and arrangement in the periodic table ● Organisation - tissues,organs and systems ● Electricity and magnetism-charge current and circuit diagrams ● Reactivity- How elements combine to form new compounds in a chemical reaction.	● The Cell- cells,organelles and specialisation ● Space- The solar system,days,seasons and eclipses ● Reproduction- Reproductive system and gestation
Year 8	● Respiration- How cells release energy from glucose ● Particle model and heating - states of matter and heat transfers ● Chemical Reactions and the reactivity series - metal reactions and extraction ● Transport- how the reactants and products of respiration are transported	● Forces and Motion - speed and how forces change the motion of objects ● Compounds and bonding - subatomic particles and how atoms bond to form compounds ● Health+Disease- communicable and non-comunicable disease. ● Current- current,series and parallel circuits	● Waves- properties of waves. light , colour and sound. ● Speed-Resultant forces,motion and acceleration ● Biodiversity-Biodiversity and its importance to ecosystems
Year 9	● Applied Forces - levers and elasticity ● Rate and energetics - rates and energy changes of chemical reactions ● Voltage -Energy transfers in a circuit ● Botany - Plant science, plant transport systems and photosynthesis ● Waves - Longitudinal and Transverse waves , the EM spectrum.	● Inheritance -Inheritance of genetic traits ,selective breeding and natural selection ● Earth Science- composition of the earth's atmosphere and structure ● Generating Electricity-Electricity generation and energy resources ● Cosmology-The Solar System and beyond ● Begin Preparing for KS4	● Cell Biology-Microscopy,cell differentiation,division and transport ● Atomic Structure and the periodic table-The development of the periodic table and evidence for the nuclear model of the atom.Properties of Group 1,7 and 0 elements.

Year 10	● Energy- Calculating energy stores + transfers. Energy resources ● Organisation-digestive system,disease and cancer ● Bonding-structure +properties of matter-chemical bonding and properties of different materials ● Electricity-charge,current,resistance,potential difference ,domestic electricity supply	● Infection and response-pathogens,immunity and drug development ● Quantitative Chemistry-Chemical measurements,Moles and concentrations ● Energy Changes-Reaction Profiles and bond energies ● Bioenergetics-Factors affecting photosynthesis and respiration ● Particle model of matter-Changes of state,specific heat capacity and specific latent heat	● Chemical Changes-the reactivity and electrolysis and neutralisation reactions ● Atomic Structure-Nuclear Radiation and radioactive decay ● Homeostasis 1- nervous system and reaction times ● Forces 1- Newton's laws and applied forces
Year 11	● The Rate and extent of chemical change-Collision Theory,catalysts and reversible reactions ● Homeostasis 2- The endocrine system,diabetes and hormonal contraception ● Forces 2- speed , velocity, $F=ma$ and stopping distances ● Inheritance- variation,evolution,inheritance,genetics and genetic engineering ● Organic Chemistry- petrochemicals and their properties ● Chemical Analysis- Purity,formulations,chromatography and gas tests	● Waves-Properties of waves,the EM spectrum and its applications ● Ecology-Biodiversity,interdependence and human impact ● Chemistry of the atmosphere-the changing atmosphere,greenhouse effect and atmospheric pollutants ● Using resources-sustainable development,water treatment and life cycle assessments ● Magnetism and Electromagnetism-magnetic fields and the motor effect	● *Space-The solar system,stars,the big bang [Triple Science Only] ● Revision and preparation for exams ● Exam Season