



INDEPENDENCE	KNOWLEDGE / LITERACY / NUMERACY / ORACY / AGENCY	CONTENT / TOPICS / CONCEPTS	Year 7 Acids Cells and movement Nutrition and digestion Elements Space Interdependence States Force	Year 8 Inheritance Waves Healthy living Chemical reactions Energy Respiration & photosynthesis Earth and atmosphere Electromagnetism	Year 9 Combined Science Cells and structures Elements and their properties Explaining properties Infectious diseases Using maths in chemistry Chemical changes Processes in living things Energetics Energy stores and transfers Using electricity Physical properties Changes in atoms	Year 10 Combined Science Homeostasis/The rate and extent of chemical change/Forces/Inheritance, variation & evolution/Organic chemistry/Chemical analysis/Waves/Ecology/Chemistry of the atmosphere/Using resources/Magnetism and electromagnetism/Space physics Biology Homeostasis/Inheritance, variation and evolution/Ecology Physics Forces/Waves/Magnetism and electromagnetism/Space physics	Year 11 Combined Science Cell Biology/Organisation/Atomic Structure/Quantitative chemistry/Rates/Energy/Forces/Infection & Response/Homeostasis/Bonding/Organic chemistry/Electricity/Forces/Bioenergetics/Ecology/Chemical changes/Energy changes/Particle model/Waves/All Biology/Chemistry/Physics topics Biology Cell Biology/Homeostasis & response/Organisation/Infection and response/Bioenergetics/Ecology/All topics/Revision Chemistry Atomic structure and the periodic table/Quantitative chemistry/Rate and extent of chemical change/Chemical analysis/Bonding, structure and the properties of matter/Organic chemistry/Chemistry of the atmosphere/Energy changes/All topics/Revision
		VOCABULARY	Indicator, neutralisation, microscope, specialised, antagonistic, the fire triangle, compound, conductor, quantity, newton, adaptation, classify, habitat, digest, satellite, weight, orbit, density, concentration, diffusion, explain, interpret, predict, compare, determine, anomaly, mean, valid, error, conclusion	Describe, mixture, pure, explain, sediment, percentage, define, compare, conductors, transfer, renewable, explain, excrete, estimate, gas exchange, label, reproduction, variation, function, predict, aerobic, calculate, frequency, reflection, hypothesis, plan, accurate, anomaly, range, uncertainty, error, conclusion	Sub-cellular structure, specialised, chromosome, organ system, adapted to function, cancer, communicable disease, vaccination, placebo, endothermic reaction, inverse square law, fatigue, metabolism, compound, balanced equation, isotopes, properties, bonding, structure, intermolecular force, conductivity, conservation of mass, mole, limiting reactant, concentration of a solution, fission	Specialised, chromosome, adapted to function, concentrated, organ system, transpiration, vaccination, placebo, peer review, fatigue, metabolism, compound, balanced equation, isotope, ionic bond, covalent bond, conservation of mass, mole, limiting reactant, concentration of a solution, neutralisation Redox, reactants and products, system, specific heat capacity, power, potential difference, ohmic conductor, internal energy, specific latent heat, pressure, plum pudding model, half-life, contamination, nuclear fission	Homeostasis, stimuli, accommodation, negative feedback mechanism, reproduction, variations, evolution, adaptation, biodiversity, greenhouse effect, sustainable, rate of reaction, catalyst, reversible reaction, fractional distillation, cracking, functional group, formulation, chromatography, gas test, photosynthesis, pollutant, potable water, life cycle assessment, recycling, contact force, vector, moment, elastic, stopping distance, transverse wave, longitudinal wave, refraction, electromagnetic spectrum, magnetic field, induced magnet, solenoid, the motor effect, solar system, star life cycle, red shift, Big Bang theory
		SKILLS	Improve scientific literacy continually over the key stage Develop literacy including key vocabulary Develop scientific numeracy to handle numbers, manipulate equations and draw/interpret tables and graphs Improve retention of knowledge over time by frequently revisiting content and skills acquired earlier in an academic year			Scientific literacy Investigative skills Numeracy Literacy	Improve scientific literacy continually over the key stage Develop literacy including key vocabulary and the use of model answers Develop scientific numeracy to handle numbers using appropriate methods and conventions, recall and manipulate equations and draw/interpret tables and graphs Improve retention of knowledge over time by frequently revisiting content and skills acquired earlier in an academic year
		ASSESSMENT	Regular marking personalised for individual students to move their skill set forwards Three formal assessments each academic year			Regular marking personalised for individual students to move their skill set forwards Three formal assessments each academic year or preliminary exams as appropriate	
ATTITUDE	The highest levels of safe practice promoted at all times by staff and students in a spirit of mutual cooperation. Promotion of how cultural ideas can influence the extent to which scientific ideas are accepted, used and valued; both in the context of the history of science and the present. Collaboration to ensure sensitive issues that deal with human development						
	Understanding others, behaviour and attitudes, SMSC, PHSE						
RESILIENCE	Strategies that develop resilience are an integral part of science lessons for all year groups, for example retrieval practice is embedded Collaboration to ensure wellbeing issues relating to health are covered in a coherent way across the school's curriculum Collaboration within the school and use of external opportunities to promote the huge range of career opportunities available in science						
	Character, personal Development, wellbeing and CIAG						