



I N D E P E N D E N C E	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 Homeostatis/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 Homeostatis/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/Homeostatis/Bonding/Organic chemistry/Electricity/Forces/Bioenergetics/Ecology/Chemical changes/Energy changes/Particle model/Waves/All Biology/Chemistry/Physics topics Biology Cell Biology/Homeostatis & 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	Measure, calculate, convert, microscope, specialised, contract, determine, compare, conductors, quantity, instrument, interpret, adapted, estimate, classify, source, explain, predict, manipulate, describe, weight, vapour, limitation, density,	Describe, series, pure, explain, sediment, percentage, define, compare, conductors, transfer, renewable, explain, excrete, estimate, design, label, explain, variation, function, predict, show, calculate, hypothesis, plan, accurate, anomaly,	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,	Specialised, adapted to function, transpiration, vaccination, placebo, metabolism, compound, ionic bond, covalent bond, mole, limiting reactant, concentration of a solution, neutralisation, specific heat capacity, ohmic conductor, internal energy, specific latent heat, isotopes, half-life, nuclear fission	Homeostasis, hormone, nervous system, inheritance, variations, evolution, classification, biodiversity, greenhouse effect, rate of reaction, factor, activation energy, fractional distillation, hydrocarbon, formulation, atmosphere, peer review, life cycle assessment, contact force, equation, elastic, acceleration, transverse wave, amplitude, frequency, electromagnetic spectrum, permanent magnet, magnetic field, electromagnet	
	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		
A T T I T U D E		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							
R E S I L I E N C E		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							