



Year 9 Curriculum Science



	Term 1 (Autumn)		Term 2 (Spring)		Term 3 (Summer)	
	Autumn 1	Autumn 2	Spring 1	Spring 2*	Summer Term* (on rotation)	
Topic	Building Blocks	Light	Reactions	Atomic Structure	Particle Model of Matter	Cell Biology
Key Concepts	<ul style="list-style-type: none"> • Energy stores • Energy transfers • Energy in fuels • States of matter and changing state • Separation techniques • Reaction of metal with oxygen • Animal and plant cells • Respiration • Photosynthesis • Working scientifically 	<ul style="list-style-type: none"> • Properties of light • Light waves • Reflection • Refraction • Dispersion and colour 	<ul style="list-style-type: none"> • Atoms, elements and compounds • Conservation of mass • Exothermic reactions • Endothermic reactions 	<ul style="list-style-type: none"> • History of the atom • Models of the atom • Developments to the atom today • Size mass and charge of atoms • Subatomic particles • Electron structure • RAM and isotopes 	<ul style="list-style-type: none"> • States of matter and changes of state • Density • Density required practical • Cooling curves • Internal energy • Specific heat capacity • Specific heat capacity required practical • Specific Latent heat 	<ul style="list-style-type: none"> • Plant and animal cells • Microscopes and magnification • Microscopy required practical • Prokaryotes and eukaryotes • Differentiation and specialised cells • The cell cycle • Stem cells • Diffusion • Surface area to volume ratio • Osmosis and active transport • Osmosis required practical
		Physics in Action	Movement	Separation Techniques		
		<ul style="list-style-type: none"> • Stretching and squashing • Work done and power • Pressure on solids • Pressure in fluids 	<ul style="list-style-type: none"> • Diffusion • Gas exchange in plants • Evaporation and transpiration 	<ul style="list-style-type: none"> • States of matter • Changes of State • Filtration and crystallisation • Simple distillation 		

* This is the start of GCSE Core Science content



Year 9 Assessment

Science



All pupils sit an assessment and several knowledge tests in Year 9. As a core subject there is a further assessment in the summer term.

	Assessment	Knowledge Test	Assessment	Revision Resources
	Autumn Term	Spring Term	Summer Term	
Style of Assessment	This assessment will include scientific skills from Years 7 and 8. Questions focus on building blocks: cells, the atom, periodic table, density, pressure, conduction and convection	Each knowledge test consists of 10 multiple-choice questions	This assessment will consist of multiple-choice, short answer and longer answer questions	<i>Kennet Resources</i> <ul style="list-style-type: none"> Year 9 Knowledge Organisers Learning Habits <i>External Resources</i> <ul style="list-style-type: none"> www.educake.co.uk www.educationquizzes.com www.bbc.com/bitesize www.youtube.com Science Revision Bank
Topics Assessed	<ul style="list-style-type: none"> Energy stores Energy transfers Energy in fuels States of matter and changing state Separation techniques Reaction of metal with oxygen Animal and plant cells Respiration Photosynthesis Working scientifically 	<ul style="list-style-type: none"> Light Pressure Atoms, elements and compounds Exothermic and endothermic reactions Diffusion 	<ul style="list-style-type: none"> Light Pressure Atoms, elements and compounds Exothermic and endothermic reactions Diffusion Atomic structure 	