

Using a 'big ideas' approach, our curriculum builds increasingly sophisticated knowledge of the products (substantive knowledge) of science. Our curriculum explores links and provides multiple interactions with each 'big idea'. We connect less sophisticated ideas to more abstract ideas throughout the five-year curriculum. This approach enables our pupils to be prepared to apply these concepts in new learning.

Big idea	7	8	9	10	11
A. Forces	Energy	Forces	Forces and Motion	P5 Forces, Pressure, Elasticity and Motion	P5 Forces, Newton's Laws and Momentum
	Current Electricity Atoms, Elements and Molecules	Earth and Space	Force fields and Electromagnets	P8 Space Physics (Triple)	C2 Chemical Bonding
	Particle Model				
B. Energy, Waves & Magnets	Energy	Sound	Energy Transfers	P1 Energy	P2 Electricity (Part 2)
	Current Electricity	Light	Fluids	P2 Electricity (Part 1)	P6 waves (Part 2)
			Plant Growth	P4 Atomic Radiation	P7 Magnetism
			Combustion	P6 Waves (Part 1)	C5.2 Chemical Cells and Fuel Cells (T)
			Force fields and	C5 Energy Transfer	
			Electromagnets	B4 Photosynthesis	
				B4 Respiration	
C. Matter & Reactions	The Particle Model	Metals and their uses	Fluids	B4 Photosynthesis	C2 Chemical Bonding
	Atoms, Elements and Molecules	Making Materials	Combustion	B4 Respiration	C3 Uses of substances in relation to masses of
	Mixtures and Separation	Rocks	Reactivity	C1.1 Atoms	substances
	Periodic Table			C1.2 Periodic Table	C4.1 Reactivity of Metals
	Acids and Alkalis			C3 Conservation of Mass	C4.2 Reactions of acids
				C5 Energy Transfer	with metals C4.3 Electrolysis
				C6 Rates of a chemical	
				reaction	P4 Atomic Radiation (C)
				C8 Chemical Analysis	
				P3 Changes of State and the particle model	
				P4 Atomic Radiation (T)	
D. Earth	Atoms, Elements and Molecules	Rocks	Combustion (Fuels)	P4 Atomic Radiation (T)	P4 Atomic Radiation (C)
	Molecules	Making Materials		C9 The Earth's Atmosphere	C7 Fuels and Crude Oil
				C10 Using the Earth's Resources	
E. Organisms, Ecosystems & Evolution	Cells, Tissues, Organs and Organ Systems	Food and Nutrition	Ecosystems	B1 Eukaryotes and Prokaryotes	B5 Homeostasis
		Breathing and	Unicellular Organisms		B6 Genetics
	Sexual Reproduction in Animals	Respiration Muscles and Bones	Genetics & Evolution	B2 Plant Tissues and Organs	B6 Evolution
			Plants and their reproduction	B2 Health issues, Circulation and	B7 Ecology
			Plant Growth	Digestion	
				B3 Disease	
				B5 Nervous System	