Science Curriculum Map

Key themes for each period of teaching identified by name. Vertically the development of this idea can be tracked by looking at the colours, where they repeat the idea is added to or improved.

KS3			
	Biology	Chemistry	Physics
Year 7 Before Christmas	Cells	Particles	Forces
Year 7 after Christmas	Variety and classification	Diffusion	Magnets
	Circulation	Elements, mixtures and compounds	Static and current electricity
	Respiration and breathing (must be after cells)	Periodic table	Sound and light
Year 7 after summer half term	Biomass, sampling, and photosynthesis	Intro into Chemical Reactions	Levers (must be after forces)
Year 8 Before Christmas	Nutrition Diet and Health	Patterns in Reactions	Energy Resources and Heat.
	Evolution		The solar system, earth moon and sun, and astronomy.
Year 8 after Christmas	Reproduction and Growth.	Acids and Alkalis, Rocks	Density Pressure.
	Extended Project		
Year 8 after summer half term	Populations, toxic accumulation, soil (must be after variety and classification)	Water cycle, acid rain, Recycling, Global Warming, Climate Change (must be after particles, diffusion and rocks)	Energy use (must be after energy resources and heat)

Year 9 Entry Level			
	Biology	Chemistry	Physics
Year 9 Entry Level Before Christmas	Cells Respiration Photosynthesis	Particle Model Atomic Structure separating mixtures	Motion, Forces
Year 9 Entry Level after Christmas	Diffusion, osmosis and cell division Biological transport structures and systems	Properties of materials Chemical reactions Periodic table basics	Static and Charge, Circuits
Year 9 after May	Start GCSE as below		

GCSE			
	Biology	Chemistry	Physics
Year 9 Before Christmas	B1 Cell structure DNA and enzyme activity Respiration Photosynthesis	C1 Particle Model Atomic Structure C2 Purity and separating mixtures	P2 Motion, Newton, Forces (must be after KS3)
Year 9 after Christmas	B2 Diffusion, osmosis and cell division Biological transport structures and systems	C2 Bonding Properties of materials (must be after C1)	P1 Particle Model, Changes of state, Pressure (must be after KS3)
		C3.2 and C3.3 Energetics Types of Chemical reaction (must be after C2)	P3 Static and Charge, Circuits (must be after KS3)
Year 9 after Easter	Revision, review, reteach, mocks, TRIO, PAGs		

GCSE			
	Biology	Chemistry	Physics
Year 10 Before Christmas	B3 The nervous system The endocrine system Maintaining internal environments	C3 Introducing chemical reaction Electrolysis (must be after C2)	P4 Magnets and magnetic fields Uses of magnetism (must be after KS3)
Year 10 after Christmas	B4 Ecosystems	C4 Using the Periodic table to predict chemical reactions Identifying the products of chemical reactions (must be after C3)	P5 Wave behaviour The electromagnetic spectrum Waves interaction
	B5 Inheritance Natural selection and evolution	C5 Monitoring chemical reactions with rate Controlling chemical reactions Equilibria (must be after C4)	P6 Radioactive emissions Uses and hazards
Year 10 after Easter	Revision, review, reteach, mocks, TRIO,		

	PAGs

GCSE			
	Biology	Chemistry	Physics
Year 11 Before Christmas	B6 Monitoring and maintaining the environment Feeding the human race Monitoring and maintaining health	C6 Applying chemical theory to industrial processes Organic chemistry (must be after C1 C2 C3 C4 C5)	P7 Work done Power and efficiency (must be after P1 P2 P3)
	Revision, review, reteach, mocks, TRIO, PAGs		
Year 11 after Christmas	B6 Non-communicable diseases	C6 Environmental chemistry (must be after KS3, C1 C2 C3 C4 C5 C6)	P8 Energy in Physics (Must be after P2 P7 P3) Powering Earth (must be after P4, P7) Beyond Earth (must be after KS3)
Year 11 after Easter	Revision, review, reteach, mocks, TRIO, PAGs		

A Level Year 12			
	Biology	Chemistry	Physics
Year 12	Cell structure	Atomic Structure	Motion, Newton,
	DNA and enzyme activity	Energetics	Forces
		Types of Chemical reaction	Particle Model,
	Diffusion, osmosis and cell division	Using the Periodic table to predict chemical reactions	Changes of state
	Ecosystems		Pressure
	Environment	Products of chemical reactions	Static and Charge
	Natural selection and evolution	Controlling chemical reactions Equilibria	Circuits
	Maintaining health		Wave behaviour
		Applying chemical theory to industrial processes	Electromagnetic spectrum
	Non-communicable diseases	Organic chemistry	Radioactive emissions
			Energy

A Level Year 13			
	Biology	Chemistry	Physics
Year 13	Respiration	Types of Chemical reaction	Changes of state
	Photosynthesis	Monitoring reactions with rate	Pressure
		Controlling chemical reactions Equilibria	Circuits
	Natural selection and evolution	Applying chemical theory to industrial processes	Magnets and magnetic fields
	Ecosystems		Wave behaviour
	Inheritance	Organic chemistry	Radioactive emissions
	Environment	Environmental chemistry	Astrophysics and Cosmology