

Science Curriculum Map Overview

Please note further information can be found in the KS3 Science curriculum sequencing document



Key Stage 3

KS3 Year 7	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Topic/content	Energy 1: Energy Stores and Resources Atoms 1: The Particle Model	Cells 1: Cell structure Space 1: The Earth In The Universe	Atoms 2: Atoms Elements and Compounds Human Health 1: Health and Exercise	Electricity 1: Circuits Separation 1: Separating Mixtures	Inheritance 1: Reproduction	Forces 1: Forces and their effects

KS3 Year 8	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Topic/content	Cells 2: Cell Transport Waves 1: Light & Sound Waves	Atoms 3: Periodic Table Human Health 2: Nutrition	Particles & Matter 1: The Particle Model Chemical Reactions 1: Chemical Reactions	Bioenergetics 1: Photosynthesis Magnetism 1: The effects of magnets	Chemical Changes 1: Endothermic and exothermic reactions Ecology 1: Interdependence	Motion 1: Moving Objects Earth Chemistry 1: Atmosphere & Rocks

KS3 Year 9	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Biology	Bioenergetics 2: Respiration		Human Health 3: Digestion		Inheritance 2: Variation	Ecology 2: Ecosystems and Adaptation
Chemistry	Rates of reaction 1: Developing practical fluency	Atoms 3: Atomic structure and the periodic table	Matter 2: Properties of everyday materials Energy changes 1: Making and breaking bonds	Separating substances 2: Mixtures and immiscibility	Chemical analysis 1: Testing for gases	Earth chemistry 2: Carbon
Physics	Energy 2: Changing energy stores	Particles and matter 2: Heating and cooling	Electricity and Magnetism 2: Using electrical current		Forces and Motion 2: Newton's laws of motion	Waves and Space 2: Applications of Light

Science Curriculum Map Overview

Please note further information can be found in the Biology, Chemistry and Physics curriculum sequencing documents



Key Stage 4

KS4 Year 10	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Biology	Cells 3 Cell division	Human Health 4: Circulatory and disease	Human Health 5: Infectious disease	Bioenergetics 3: Photosynthesis and respiration	Homeostasis 1: Nervous system	Ecology 3: Human interaction on ecosystems
Chemistry	Atoms 4: Atomic structure Separating substances 3: Purity and solubility	Bonding 1: Bonding and the properties of materials	Quantitative Chemistry 1: Calculations used in chemistry	Chemical changes 2: Reactions of acids, metals and electrolysis	Energy changes 2: Energy changes and measurements in reactions	Rate of reaction 2: Measuring and changing rates in reactions.
Physics	Energy 3: Energy applications	Electricity 3: PD, current and resistance	Waves 3: Properties and uses of waves Waves 3: Applications of waves (separates only)	Particles 3: Particle model of matter	Forces 4: Newton's laws	Atoms 3: Atomic Structure Atoms 3: Fission and Fusion (separates only)

KS4 Year 11	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Biology	Homeostasis 2 Endocrine system	Inheritance 3: Reproduction	Inheritance 4: Variation and Evolution	Revisit Curriculum	Revisit Curriculum	
Chemistry	Organic Chemistry 1: Derivatives of crude oil	Chemical analysis 2: Identifying unknown substances	Earth Chemistry 2: Evolution of the atmosphere	Using resources 1: Water resources and chemistry applications	Revisit Curriculum	
Physics	Electricity 4: Domestic electricity	Forces 5: Mechanics Forces 5: Further mechanics (separates only)	Magnetism 3: Magnetism and electromagnetism	Space 3: Space physics (separates only) Revisit Curriculum	Revisit Curriculum	

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Key Stage 5

KS5 Year 12	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Biology	Biological Molecules Cells	Biological Molecules Cells	Genetic information, variation and relationships between organisms. Organisms exchange substances with their environment	Genetic information, variation and relationships between organisms. Organisms exchange substances with their environment	Genetic information, variation and relationships between organisms. Organisms exchange substances with their environment	
Chemistry	Atomic structure Amount of Substance Introduction to Organic Chemistry Alkanes	Amount of substance Bonding Alkanes Haloalkanes	Bonding Energetics Haloalkanes Alkenes	Kinetics Equilibria Redox	Periodicity Group 2 Alcohols Organic analysis	Halogens Organic analysis

Physics	Measurements and errors	Electromagnetic radiation and quantum phenomena	Materials	Progressive and stationary waves	Refraction, diffraction and interference	Periodic motion
	Particles	Motion (mechanics)	Progressive and stationary waves	Current electricity	Electric circuits	
	Forces (mechanics)	Energy and momentum (mechanics)				

KS5 Year 13	Half term 1 Autumn 1	Half term 2 Autumn 2	Half term 3 Spring 1	Half term 4 Spring 2	Half term 5 Summer 1	Half term 6 Summer 2
Biology	Energy transfers in and between organisms Organisms respond to changes in their external and internal environments	Energy transfers in and between organisms Organisms respond to changes in their external and internal environments	Genetics, populations, evolution and ecosystems The control of gene expression	Genetics, populations, evolution and ecosystems The control of gene expression	Exam preparation and revision	
Chemistry	Thermodynamics Optical isomerism Carbonyls Derivatives of carboxylic acids	Electrochemical cells Acids and bases Biochemistry Synthetic Pathways NMR	Acids and bases Chromatography Period 3 Transition metals	Acids and bases Transition Metals Aqueous solutions	Exam preparation and revision	

Physics	Thermal physics	Electric fields	Radioactivity	Nuclear physics	Measurements and errors (revisit)	
	Gravitational fields	Capacitance Magnetic fields	Telescopes Classification of stars	Cosmology	Exam preparation and revision	