

Curriculum map overview for Year 8 Science 2025/26

Term (Weeks)	Topic/Unit (weeks)	Key Objectives	Type of assessment
Week 1 (First full week)	Initial evaluation	This is the time to establish routines with the children, fostering positive relationships, and gaining a clear understanding of their individual learning needs.	
Autumn 1 (7)	Human digestive system (3)	This unit examines the human digestive system, including the roles of tissues, organs, enzymes, and beneficial bacteria. It also focuses on evaluating risks, interpreting data, identifying patterns, and suggesting improvements to enhance the reliability of investigations.	End of unit test
	Atoms, elements and compounds (3)	This unit explores the basic atomic model, the differences between atoms, elements, and compounds, and the varying physical and chemical properties of elements. It covers chemical symbols, formulae, SI units, and IUPAC nomenclature, emphasising their use in describing elements and compounds.	End of unit test
Autumn 2	Biodiversity	This unit examines environmental changes and	End of unit

(7)	(3)	their impact on species' survival and adaptation, potentially leading to extinction. It also develops skills for interpreting data and observations, evaluating errors, and using SI units and IUPAC chemical nomenclature in scientific contexts.	test
	Understanding chemical reactions (2)	This unit covers the conservation of mass in changes of state and chemical reactions, including atom rearrangement. It also focuses on representing reactions with formulae and equations, exploring combustion, decomposition, and displacement, and distinguishing chemical from physical changes.	End of unit test
	Moving by force (3) (Continued into Spring 1)	This unit explores speed, forces, and motion, including effects on objects. It covers deriving equations, calculations, and distance-time graphs. Learn to use force arrows, identify balanced and unbalanced forces, and understand their impact on movement.	End of unit test
Spring 1 (6)	Species and classification (differences between species) (1)	This unit explores the differences between species and how to interpret observations and data to identify patterns and draw conclusions. It also focuses on making and recording observations using various methods, evaluating their reliability, and suggesting improvements for investigations.	End of unit test
	Variation (differences within species) (2)	This unit examines variation within species, both continuous and discontinuous, using measurements and graphical representations. It also emphasises objectivity, accuracy, precision, and repeatability in investigations, the use of appropriate techniques, and the effective presentation of data.	End of unit test
Spring 2 (6)	Earth's resources (2)	This unit explores Earth's composition, structure, and rock cycle, including the formation of igneous, sedimentary, and metamorphic rocks. It also examines Earth as a source of limited resources and the importance of recycling, alongside skills in making and evaluating observations and measurements.	End of unit test
	Series circuits (3)	This unit covers electric current, potential difference, and resistance in series and parallel circuits. It also explores charge separation, electron transfer, and electric fields. The unit focuses on interpreting data, identifying patterns,	End of unit test

		and drawing conclusions using scientific knowledge.	
Summer 1 (5)	Heredity and DNA (2)	This unit examines the transmission of genetic information through heredity, how scientific methods evolve with new evidence, the importance of publishing and peer review, and the Study of DNA, chromosomes, and genes while developing lab skills focusing on safety.	End of unit test
	Fuels and energetics (3)	This unit examines energy changes in state, exothermic and endothermic reactions, and energy transfers in various processes. It emphasises objectivity, accuracy, and precision in scientific enquiries, data interpretation, and the use of tables, graphs, and reliable methods.	End of unit test
Summer 2 (6)	Making images (2)	This unit explores the transmission of light, including absorption, scattering, and reflection, and the use of the ray model in imaging, refraction, and lenses. It also covers energy transfer in various processes, using safe techniques, making accurate observations, and improving reliability.	End of unit test
	Diet and exercise (2)	This unit covers the components of a healthy diet, energy requirements, and the effects of imbalances, exercise, asthma, and smoking on the body. It also focuses on planning scientific enquiries, applying mathematical concepts, performing calculations, and basic data analysis techniques.	End of unit test
	Climate change and greenhouse gases (2)	In this unit pupils learn about greenhouse gas emissions from transport and industry, and the use of renewable energy resources and changes to transport infrastructure that could reduce emissions.	End of unit test