

Autumn Term 1	Autumn Term 2	Spring Term 1	Spring Term 2	Summer Term 1	Summer Term 2
Breathing: This unit explores the human and plant gas exchange system, breathing mechanisms, and adaptations for function. Atoms, Elements and Compounds: Students explore the structure of atoms, the differences between elements, compounds, and mixtures, and how chemical symbols and formulae are used to represent substances.	Moving by Force: Students investigate how forces affect motion, including speed, balanced and unbalanced forces, calculations, and distance–time graphs. Respiration: Students explore how living organisms release energy through aerobic and anaerobic respiration, including fermentation, and compare the different processes. Understanding Chemical Reactions: Students explore how chemical reactions occur, including conservation of mass, chemical equations, and the differences between physical and chemical changes.	Series Circuits: Students investigate current, potential difference, and resistance in electrical circuits, while exploring charge, electric fields, and simple circuit behaviour. Acids and Bases: Students explore the properties of acids, alkalis, and pH, including neutralisation and the reactions of acids with metals and metal oxides.	Earth's Resources: Students explore the structure of the Earth, the rock cycle, and how Earth's limited resources can be used sustainably through recycling and conservation. Making Images: Students investigate how light travels and forms images through reflection, refraction, and lenses, while developing practical investigative skills.	Inheritance and Evolution: Students explore how characteristics are inherited through DNA and how variation, adaptation, and natural selection lead to evolution and extinction. Fuels and Energetics: Students investigate energy changes in chemical reactions, including exothermic and endothermic reactions, while developing practical and data analysis skills.	Climate Change and Greenhouse Gases: Students explore the causes of climate change, the impact of greenhouse gases, and how renewable energy and sustainable transport can reduce emissions. Ecology: Students explore ecosystems, interdependence, food webs, population sampling, and how organisms interact with each other and their environment. Our Solar System and Beyond: Students explore gravity, the Earth–Moon–Sun system, seasons, and the scale of the universe, including the use of light years.
Assessment		Key Concepts/ Skills		Reading	
Teachers regularly mark students' work and provide feedback to help students reflect on their learning and		Throughout the year students develop important scientific skills, including:		Students develop their scientific literacy through reading scientific texts, case studies, and explanations	

make improvements. Assessment focuses on applying knowledge, using scientific vocabulary accurately, and explaining scientific ideas clearly.	- Working scientifically and planning investigations - Making observations and recording results - Analysing data and drawing conclusions - Interpreting graphs and scientific diagrams - Using scientific vocabulary accurately - Applying knowledge to explain real-world phenomena	of real-world scientific discoveries. Students practise interpreting diagrams, graphs, and written information to build confidence in reading scientific material. Students are taught the BUG strategy to help them approach exam questions effectively: - B – Box the command word - U – Underline key information in the question - G – Glance back at the question to check that the answer fully addresses what has been asked This supports students in developing strong exam technique and clear written responses.
Enrichment	Careers	Useful resources and revision
Students have opportunities to take part in enrichment activities such as: - Science Club - British Science Week activities - STEM challenges and competitions - Practical investigations and demonstrations	Throughout the curriculum, students are introduced to careers that use science, including: - Medicine and healthcare - Engineering and technology - Environmental science - Research and laboratory science These links help students understand how science connects to real-world careers and future opportunities.	Students can support their learning using: - Knowledge organisers and revision materials - Teacher resources and recommended websites - Educational science videos and reading materials