Science Year 9	**Curriculum intent:** In Year 9, students begin their GCSE studies in Science. The Year 9 curriculum will continue to consolidate and build on the key themes studied in both year 7 and 8. Students will study a broad and balanced curriculum of introductory GCSE topics. Retrieval and consolidation exercises will support students in the acquisition of the key knowledge listed below. Students will also be given the opportunity to apply this knowledge in new situations.			
Topic	**1**	**2**	**3**	**4**
Interleaving	Key knowledge from previously studied topics	Key knowledge from previously studied topics	Key knowledge from previously studied topics	Key knowledge from previously studied topics
Knowledge	Cell Biology; Atomic Structure and Periodic; Particle Model of Matter	Organisation; Structures and bonding; Atomic structure	Infection and response; Chemical Changes; Energy	Bioenergetics; Energy Changes; Electricity
Understanding	Apply knowledge in a range of different contexts. Opportunities to include: *Studying the transport of substances moving into and out of animal and plant cells and viewing cells in microscopy. Develop links between atomic structure and the Periodic table. Explain the different properties of solids, liquids and gases, changes in state and pressure using the particle model.*	Apply knowledge in a range of different contexts. Opportunities to include: *Studying structure and functions of the nervous system. Compare different types of bonding. Comparing the properties of different types of nuclear radiation and modelling half-life.*	Apply knowledge in a range of different contexts. Opportunities to include: *Describe the relationship between health and disease Investigating how different factors affect the rate of a reaction. Identifying energy stores, describing and calculating energy transfers*	Apply knowledge in a range of different contexts. Opportunities to include: *Investigate factors affecting the rate of photosynthesis and the importance of respiration in all living organisms. Using circuit diagrams to construct circuits to investigate various components.*
Skills	Scientific Thinking; Experimental Skills; Analysis and Evaluation; Scientific Vocabulary	Scientific Thinking; Experimental Skills; Analysis and Evaluation; Scientific Vocabulary	Scientific Thinking; Experimental; Analysis and; Scientific	Scientific Thinking; Experimental Skills; Analysis and Evaluation; Scientific Vocabulary
Assessment	End of topic tests for all individual topics across Biology, Chemistry and Physics	End of topic tests for all individual topics across Biology, Chemistry and Physics	End of topic tests for all individual topics across Biology, Chemistry and Physics	End of topic tests for all individual topics across Biology, Chemistry and Physics