

Science Year 8	Curriculum intent: The year 8 curriculum will consolidate and build on the key themes studied at year 7. Students will study aspects of Biology, Chemistry and Physics which have been carefully selected to build on prior knowledge through the big scientific ideas theme. Opportunities to revisit key concepts through retrieval practice as well as consolidation exercises in order to maximise retention of key knowledge. Whenever possible knowledge and skills are acquired through the use of carefully planned practical activities with an emphasis on an investigative approach. Key skills will be developed with repeated practice, increasing appropriately in demand. Students will develop understanding of key concepts and will be given the opportunity to demonstrate this in a range of different contexts.														
Rotation	1			2			3			4			5		
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			Key knowledge from previously studied topics		
Knowledge	Digestion The periodic table light			Breathing and Respiration Elements Magnets and Electromagnets			Inheritance Types of chemical Reaction Levers and pressure			Natural selection Energy changes in Reactions Sound			Projects		
Understanding	Apply knowledge in a range of different contexts. Opportunities to include: Describing possible health effects of unbalanced diets. Use data to describe a trend in the physical properties of different elements Explaining how filters work and why the colour of objects change when viewed in different lights.			Apply knowledge in a range of different contexts. Opportunities to include: Explaining how the parts of the gas exchange system are adapted to their function. Naming compounds using their chemical formulae. Investigating what effects the strength of an electromagnet			Apply knowledge in a range of different contexts. Opportunities to include: Using a diagram to show the relationship between DNA, chromosomes and genes. Using particle diagrams to show what happens in a reaction. Explaining how levers enable us to lift heavy loads and how pressure can be increased or reduced.			Apply knowledge in a range of different contexts. Opportunities to include: Investigating the link between the shape of birds beaks and their diet. Using experimental observations to distinguish exothermic and endothermic reactions. Applying knowledge of sound to describe how it can travel through different mediums			Apply knowledge in a range of different contexts. Opportunities to include:  Working like a scientist to carry out a scientific project, this allows students to experience the project process; improving their enquiry, problem solving and communication skills.		
Skills	Scientific thinking Experimental skills Analysis and evaluation Scientific vocabulary			Scientific thinking Experimental skills Analysis and evaluation Scientific vocabulary			Scientific thinking Experimental skills Analysis and evaluation Scientific vocabulary			Scientific thinking Experimental skills Analysis and evaluation Scientific vocabulary			Scientific thinking Experimental skills Analysis and evaluation Scientific vocabulary		
Assessment	End of rotation test			End of rotation test			End of rotation test			End of rotation test			Science skills and key knowledge assessment		