

Science – Year 8

Long-Term Plan 2024-2025

Calendar	Topic	Assessment	Sequencing and Coherence concepts - themes - skills	Literacy reading - vocabulary - oracy - writing
Autumn Half Term 1	Y8 Working Scientifically covering experimental terminology, maths and science	Teams quiz which is automatically marked and returned to students with corrections. Students are tested on the lesson objectives for this unit.	This unit builds on Y7 unit and introduces range, repeatability and reproducible in preparation for GCSE in y9.	Working scientifically glossary is provide to pupils in their learning journey.
	B3 Genes and Evolution including DNA, evolution and inheritance	B3 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	B3 builds on Y7 B1cells now students understand the role of the cells nucleus	B3 glossary is provide to pupils in their learning journey. Literacy - talk tactics to classify based on similar features
Autumn	C4 Acids and Alkalis covering indicators, neutralisation and uses	C4 end of topic test composed of suitable level 1 and 2 GCSE	Students are able to understand neutralisation fully due to studying	C4 glossary is provide to pupils in their learning journey.
Half Term 2	of neutralisation B4 Photosynthesis and Respiration including transpiration, breathing, aerobic and anaerobic respiration	questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment. B4 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	chemical reactions previously. B4 requires prior knowledge of plants as producers needed prior to studying ecosystems.	Literacy - Talk tactics to categorise substances are acid, alkaline or neutral Literacy – Acid bath murderer task. B4 glossary is provide to pupils in their learning journey.

Spring Half Term 3	P3 Electricity and Electromagnets covering circuits, current, voltage, resistance and magnets C5 Useful Materials includes composites and life cycle assessments. This unit is completed after half term	P3 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	Knowledge of structure of the atom (C1) is needed to explain static and current electricity. Properties of metals (C3) is needed to explain conduction and electromagnetism.	P3 glossary is provide to pupils in their learning journey. C5 glossary is provide to pupils in their learning journey.
Spring Half Term 4	C5 Useful Materials (2 nd half of unit) B6 Ecosystems covering habitats, food chain and webs and biomagnification	C5 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment. B6 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	A working knowledge of photosynthesis is required previously to understand food chains and webs	B6 glossary is provide to pupils in their learning journey. Literacy - B6 "Save the bees" presentation
Summer Half Term 5	C6 Earth and Atmosphere including igneous, metamorphic and sedimentary rocks, rock cycle and the carbon cycle P2 Levers and Pressure covering turning forces, principle of moments and atmospheric pressure (first ½ of unit)	C6 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	Prior understanding of photosynthesis (B4) and combustion (C3) needed to explain the carbon cycle in C6. A sound understanding of forces is needed prior to this unit.(P1). Mathematical demand in terms of deciphering units and re-arranging equations is considerably higher than other KS3 topics	C6 glossary is provide to pupils in their learning journey. Literacy - Talk tactics to categorise igneous, sedimentary and igneous rocks. P2 glossary is provide to pupils in their learning journey.

Summer	P2 Levers and Pressure (2 nd ½ of unit)	P2 end of topic test composed of suitable level 1 and 2 GCSE	P5 glossary is provide to pupils in their learning journey.
Half Term 6	P5 Waves including reflection, refraction, colours of light, sound and hearing	questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	
		P5 end of topic test composed of suitable level 1 and 2 GCSE questions. Feedback is being developed to include further GCSE questions to address any areas of weakness indicated by assessment.	