

St Cuthbert Mayne School Curriculum Map 2023-2024



Department: Science

Year 13

Autumn Term 1 & 2				
Topic/Unit	Biology - Energy transfers in and between organisms	Biology - Organisms respond to changes in their environment	BTEC Applied Science	BTEC Applied Science
Knowledge (Content covered)	<ul style="list-style-type: none"> • Photosynthesis • Respiration • Energy and Ecosystems • Nutrient cycles 	<ul style="list-style-type: none"> • Stimuli and response • Nervous coordination • Skeletal muscles • Homeostasis 	Colorimetry Titration Cooling Curves Chromatography	Anatomy and Physiology skeletal, muscular, lymphatic and vascular systems
Skills	Building on concepts from year 12 Developing the ability to link a	Building on concepts from year 12 Developing the ability to link a number of	Report writing Practical science Following instructions	Application of GCSE concepts and development of higher

	number of biological concepts	biological concepts	Graph Drawing	level thinking
Assessment	End of unit exam based assessment Practical assessment	End of unit exam based assessment Practical assessment	Coursework	Coursework
Gatsby 4 (Linking curriculum learning to careers) GATSBY BENCHMARK 4	Ecologist	Veterinarian Surgeon	Quality Assurance Technician	Nursing Physiotherapy

Spring Term 1 & 2				
Topic/Unit	A-level Biology	A-level Biology	BTEC Applied Science	BTEC Applied Science
Knowledge (Content covered)	Nerve impulses Structure and function of muscles Homeostasis	Gene Mutations Epigenetics Cloning Fingerprinting	Waves Cells Physical chemistry	Enzymes Molecules Plants Electricity

				Energy in fuels
Skills	Investigation microscopy techniques Application of GCSE concepts and development of higher level thinking	Application of GCSE concepts and development of higher level thinking	Building from the fundamentals of GCSE Developing higher level analysis skills	Report writing Practical science Following instructions Graph Drawing
Assessment	End of unit exam based assessment Practical assessment	End of unit exam based assessment Practical assessment	End of unit assessment	Coursework
Gatsby 4 (Linking curriculum learning to careers) GATSBY BENCHMARK 4	Medical doctor	Forensic scientist, cancer researcher	Research scientist Analytical Chemist	Investigative Scientist

Summer Term 1 & 2			
Topic/Unit	A-level Biology	BTEC Applied Science	BTEC Applied Science
Knowledge (Content covered)	Revision	Waves Cells Physical chemistry	Enzymes Molecules Plants Electricity Energy in fuels
Skills		Building from the fundamentals of	Report writing

		GCSE Developing higher level analysis skills	Practical science Following instructions Graph Drawing
Assessment	Alevel examinations	End of unit assessment	Coursework
Gatsby 4 (Linking curriculum learning to careers) GATSBY BENCHMARK 4		Research scientist Analytical Chemist	Investigative Scientist