Year 8 Key Stage 3 Science 2025-2026

Curriculum Intent We believe that students deserve a broad and ambitious Science curriculum that enriches in skill and knowledge, which ignites curiosity and prepares them well for future learning or employment. Our curriculum is sequenced to build upon prior knowledge learnt from KS1, KS2 and KS3 and firmly embed the precise learning points that pupils need to succeed in their qualification and also to go on to further career success.

Term	Topic	Knowledge and Skills	Assessments	Careers	SMSC	SRE/ British Values	Literacy	Character Virtues
AUTUMN 1								
	Breathing & Respiration	The respiratory system and how it functions to include how breathing takes place and respiration.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers related to medical and sports disciplines.	Maintaining a healthy lifestyle including the implications of smoking / vaping. Spiritual (Learning about themselves)	Lifestyle choices, peer pressure.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Moral (Self-discipline), Performance (Teamwork), Intellectual (Reflection).
	Earth	The composition and structure of the atmosphere and earth, the rock cycle and formation of sedimentary, igneous and metamorphic rocks, the need to recycle, carbon cycle and humankind continuing to produce carbon dioxide and the	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers related to Link Earth Sciences, e.g., Geology.	Spiritual – learning about the surrounding world.	The need for rules to make a happy, safe and secure environment to live and work. A culture built upon freedom and equality, where everyone is aware of their rights and responsibilities.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Intellectual (critical thinking, reflection) Civic (social justice) Performance (teamwork, confidence).

		impact on global climate.						
	Electricity & Static	Introduction to series and parallel circuits, compare the voltage drop across resistors connected in series in a circuit, compare and explain current flow in different parts. The structure of the atom and how static electricity is caused by the movement of atoms,	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Electrician, careers making use of electrical circuits.	Spiritual: Learning about the surrounding world.	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai.	Intellectual: Critical thinking, focus. Performance: Team work, confidence.
Half Term								
AUTUMN 2								
	Variation	Review the evidence for theories about how particular species went extinct, model the inheritance of a specific trait and explore the variation in the offspring produced.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating evolution and genetics.	Spiritual & Moral – respecting everyone's beliefs regarding evolution / genetics Spiritual – learning about oneself.	Inheritance of particular characteristics. A culture built upon freedom and equality, where everyone is aware of their rights and responsibilities.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Performance (Teamwork, Confidence) Civic (Community Awareness)

						Understanding that we all don't share the same beliefs and values. Respecting those values, ideas and beliefs of others whilst not imposing our own onto them.		
	Energy	Identify energy stores and describe how energy is transferred between objects. Describe the term efficiency and calculate using the given equation. Also calculate power – the rate at which energy is transferred.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Physics relating to energy transfers, electrical energy production and transfer.	Spiritual – learning about the surrounding world.	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai.	Intellectual: Critical thinking, focus Performance: Team work, confidence.
Christmas Holiday								
SPRING 1								
	Heat Transfer	The process of convection and conduction and ways in which to reduce energy transfer.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to	Careers relating to the choice of material for a particular purpose, Material Science	Moral (Use and positioning of renewable energy).	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Performance (Teamwork, Confidence).

			reflect and amend work as required.					
	Classification	The range of living organisms and how they can be grouped. The work of a range of Scientists within classification.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to the variety of life, for example ecology and conservation.	Spiritual – learning about the surrounding world.	Variety within the living world.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Intellectual: Critical thinking, focus
Half Term								
SPRING 2								
	Sound	Sound is caused by longitudinal waves, relate changes in the shape of an oscilloscope trace to changes in pitch and volume. Describe how the ears work.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to communication.	Spiritual: Learning about the world around us.	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai.	Performance: teamwork, confidence, Intellectual: critical thinking, reflection.
	Physical & Chemical Changes	Comparing physical and chemical changes,	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to material science.	Spiritual: Learning about the world around us.	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai.	Performance: teamwork, confidence, Intellectual: critical thinking, reflection.

Easter Holiday								
SUMMER 1								
	Feeding Relationships	Energy transfer within an organism. Food chains and webs change a population of two organisms over time.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to habitat conservation and ecology.	Spiritual: Learning about the world around us. Moral: human impact on the environment / food supply	A culture built upon freedom and equality, where everyone is aware of their rights and responsibilities.	Key words, reading, comprehension and homework tasks. Tassomai.	Performance: teamwork, confidence, motivation Intellectual: critical thinking, reflection.
	Light	Transverse wave properties to include electromagnetic spectrum with a particular focus on light, e.g., reflection and refraction.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to medicine.	Spiritual – learning about surrounding world.	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Intellectual (teamwork, focus, reflection) Performance (teamwork, confidence).
Half Term								
Summer 2								
	Photosynthesis	The process of photosynthesis and how leaves are adapted to maximise the reaction. The rate at which the reaction occurs and how products of the reaction are	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to Biology, e.g., ecology.	Moral (Deforestation).	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Performance (Teamwork, Confidence) Intellectual (Critical thinking, reflection).

		moved throughout the plant.						
	Essential Chemistry	Recap of fundamental chemistry for GCSE – structure of an atom to include calculation of protons, electrons and neutrons. The positioning o electrons into shells.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Careers relating to chemistry, chemical bonding.	Spiritual (Learning about the surrounding world).	The need for rules to make a happy, safe and secure environment to live and work.	Key words, reading, comprehension and homework tasks. Tassomai usage.	Intellectual (Critical thinking, reflection).