

Year 7 Key Stage 3 Science 2023-2024

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								
	Introduction to Science	Lab skills - to develop practical scientific and mathematical skills and knowledge.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Laboratory based. Careers relating to "The Scientific Method".	Moral: How Scientists work / investigate.	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.	Moral: How Scientists work / investigate without bias Performance: Team work, confidence
	Particles & Separation Techniques	Relate the features of the particle model to the properties of materials in different states. Devise ways to separate mixtures based	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Material Scientists.	N/A	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 Performance: Team work, confidence

		on their properties.						
	Cells, Tissues & Organs	To identify principal features of animal and plant cells and describe their function. To develop microscopy skills To identify the different	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Cell Biologists.	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, reflection Performance: Team work, confidence.
Half term 23 rd October -27 th October								
AUTUMN 2								
	Forces	To determine the different types of forces, investigate factors that affect the size of frictional or drag forces, determine the difference between mass and weight.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Relating to everyday experiences, car design, rocket design	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.
	Energy Stores	Identify energy stores and describe how energy is transferred between objects. Describe the term efficiency and calculate using the given equation. Also	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.

		calculate power - the rate at which energy is transferred.						
End of Term 18 th December-1 st January 2024								
SPRING 1								
	Periodic Table	Sort elements using chemical data and relate this to their position on the Periodic Table, compare the properties of elements with the properties of compounds.	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Chemists, material scientists.	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.	Intellectual: Critical thinking, focus. Performance: Team work, confidence.
	Electrical Circuits	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.	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 12 th February -16 th February								
SPRING 2								
	Reproduction	Graph data relating to variation and explain how it may lead to the	Lessons start with retrieval questions. End of topic assessment	Careers relating to human biology.	Cultural: aware of differences.	What is sexual reproduction? Reproductive organs.	Key words, reading, comprehension and homework tasks. Tassomai.	Moral: Respect

	Acids & Alkalis	How metals react with acid, use of experimental data to suggest an order of reactivity of various metals, investigate pH with an investigation	Lessons start with retrieval questions. End of topic assessment Pupils encouraged to reflect and amend work as required.	Chemistry - careers relating to making new materials and substances.	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, motivation Intellectual: critical thinking, reflection.
	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, motivation Intellectual: critical thinking, reflection.
Half Term 27 th May-31 st May								
Summer 2								
	Feeding Relationships	Energy transfer within an organism. Food chains and webs change a population of one organisms	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.
	Space	The tilt of the Earth's axis affects the amount of solar energy absorbed	Lessons start with retrieval questions. End of topic assessment	Careers relating to aspects of Space.	Spiritual: Learning about the surrounding world	The need for rules to make a happy, safe and secure	Key words, reading, comprehension and homework tasks. Tassomai.	Performance: teamwork, confidence, motivation

		by the Earth's surface. The sun is a star, there are billions of stars within our galaxy within our galaxy. Large distances can be measured in light years.	Pupils encouraged to reflect and amend work as required.			environment to live and work.		
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