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**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.

\*Thursdays - Will reteach or extend pupils on prior knowledge

Term	Topic	Knowledge and Skills	Assessments	Careers	SMSC	SRE/ British Values	Literacy	Character Virtues
<b>Autumn 1</b>								
4 <sup>th</sup> September	Waves	<b>Know how the properties of different waves make them suitable for their use in everyday life</b> <b>Dangers and hazards</b> Waves carry energy from one place to another and can also carry information. <b>RP- Standing wave and Ripple tank (See SOW for more detail)</b>	<b>Exit ticket for waves.</b> (15 marks) All complete <b>C1 paper from reteach</b> lessons the week. (70 marks)	Designing comfortable and safe structures such as bridges, houses and music performance halls requires an understanding of mechanical waves.	See both sides and how it can improve your life. Cultural	BV- Individual liberties: Pupils have the right to work independently and make choices in a safe environment. Curiosity	Disciplinary knowledge to identify the difference between explain, describe and compare. Subject terminology must be used accurately and appropriately.  Waves key tier 3 and tier 2 words with pictures	Resilience teamwork
11 <sup>th</sup> September								
18 <sup>th</sup> September								
25 <sup>th</sup> September	Electromagnetism and Magnetism	Electromagnetic effects are used in a wide variety of devices. That when current flows around a magnet it can produce movement.	Exit Ticket for Magnetism and Electromagnetism  Complete Physics Paper 1	Engineers make use of the fact that a magnet moving in a coil can produce electric current. Using the Flemmings rule			Tier 2 and Tier 3 key terms to be printed and glued in books	Resilience Teamwork Focus
2 <sup>nd</sup> October								
9 <sup>th</sup> October								

		Motor effect of the relationship between current, magnetic field and force. Generator effect Transformers		for the motor effect				
16 <sup>th</sup> October	Ecology	Describe and carry out field work using different sampling techniques. Calculate sample size. Interpret and analyse data from sampling. Look at how ecosystems interact. Explain the impact of humans on the population. Learn about the recycling of carbon, nitrogen(decay) and water	<b>Knowledge Retrieval Questions - Exit Ticket- Ecology</b> Marked by teacher. Pupils correct, teacher input and pupils given similar questions to demonstrate progress.  P1 Paper 2021- give pupils a chance to demonstrate retention	Look at the role of a conservationist and investigating more sustainable ways to live.	Moral- Social- Cultural - Understand there are cultural issues that need to be considered when dealing with sustainability.	BV- Mutual Respect and Tolerance- Pupils have a right to learn about other cultures and must accept these cultures will have different views. Knowing this as scientists we inform using evidence about sustainability	Subject and disciplinary key terms Sample Representative Sustainability Key tier 3 and tier 2 words with pictures	Wisdom Humanity Justice
Half term 23 <sup>rd</sup> October -27 <sup>th</sup> October								
AUTUMN 2								
30 <sup>th</sup> October								
7 <sup>th</sup> November								
13 <sup>th</sup> November	Chemical Analysis	C2- Understand methods used	Knowledge retrieval		Spiritual- learning about	BV- Democracy-	Tier 2 and Tier 3 words	

20 <sup>th</sup> November		industry to identify what substances are made up of. RP- Chromatography	Exit Ticket for Chemical Analysis - 15 marks	Topic linked to industry laboratory skills. Instrumental methods provide fast, sensitive and accurate means of analysing chemicals Forensic scientists and drug control scientists rely	scientific skills used to identify the world around them. Social- Working with others in a practical setting and realise they may have different ideas	pupils learn to work in groups and accept other's views The rule of law- health and safety in a lab.	produced for topic Learning subject specific terminology that should be included in scientific methods.  Also writing in a logical way.	Wisdom, knowledge courage
27 <sup>th</sup> November	Mocks (B1, C1 and P1)							
4 <sup>th</sup> December	The Earth's Resources	Industries use the Earth's natural resources to manufacture useful products. In order to operate sustainably, chemists seek to minimise the use of limited resources, use of energy, waste and environmental impact in the manufacture of these products	Knowledge Retrieval  Exit ticket - Chemical Resources	Industries learning to use natural resources in a sustainable way.  Life cycle assessment  RP: Making potable water  Process of making waste water	Moral - Everyone entitled to water to survive.	Justice- Ensure water is produced in a way that is safe. Mutual Respect- When considering life cycle assessment of products	Tier 2 and Tier 3 words for topic to be glued into books	Resilience Teamwork - for practical work and group work Critical Thinking
11 <sup>th</sup> December								
End of Term 18 <sup>th</sup> December-1 <sup>st</sup> January 2024								
SPRING 1								
2 <sup>nd</sup> January	Mocks (B2, C2, P2)							
8 <sup>th</sup> January								
15 <sup>th</sup> January	The Earth's Atmosphere	Earth's atmosphere is dynamic and			Moral	Individual Liberty	Tier 2 and tier 3 words for the	Wisdom Humanity

22 <sup>nd</sup> January		forever changing. The causes of these changes are sometimes man-made and sometimes part of many natural cycles	Exit Ticket for The Earth's Atmosphere	Analysing the changes in atmosphere. Monitoring pollutant levels and causes. Data analysis		Democracy Mutual respect. When considering human affect on the atmosphere	topics to be printed and placed in books	
5 <sup>th</sup> February	Reteach and Address Gaps (Informed by assessment data)							
Half term 12 <sup>th</sup> February -16 <sup>th</sup> February								
SPRING 2								
19 <sup>th</sup> February	Reteach and Address Gaps (Informed by assessment data)							
26 <sup>th</sup> February								
4 <sup>th</sup> March								
11 <sup>th</sup> March								
18 <sup>th</sup> March								
25 <sup>th</sup> March								
End of Term 29 <sup>th</sup> March- 12 <sup>th</sup> April								
SUMMER 1								
15 <sup>th</sup> April	Reteach and Address Gaps (Informed by assessment data)							
22 <sup>nd</sup> April								
29 <sup>th</sup> April								
6 <sup>th</sup> May	Actual Exams							
13 <sup>th</sup> May								
20 <sup>th</sup> May								
Half Term 27 <sup>th</sup> May-31 <sup>st</sup> May								
Summer 2								
3 <sup>rd</sup> June	Actual Exams							
10 <sup>th</sup> June								
17 <sup>th</sup> June								
24 <sup>th</sup> June								

1st July	
8 <sup>th</sup> July	
22 <sup>nd</sup> July	