

Calendar	Topic	Assessment	Sequencing and Coherence <i>concepts - themes - skills</i>	Literacy <i>reading - vocabulary - oracy - writing</i>
Autumn Half Term 1	P9 Motion: Speed/distance time graphs, Velocity and acceleration, Velocity-time graphs, Motion graphs.	P9 Online test set on Educake – instantly marked and direct question feedback through Educake. P9 End of topic test GCSE style questions FT and HT. P9, working scientifically and synoptic content from P1- P8. Teacher marked, feedback though model answer mark scheme and follow up exam style questions on areas of weakness – personalised.	This topic follows directly on from P8 forces in balance, explaining what happens when we have a resultant force (acceleration), and then using d-t and v-t graphs to describe the motion of different bodies.	Reading tasks: converting a description of a journey into a distance/ or velocity/time graph. Extended writing
Autumn Half Term 2	P10 Forces and Motion: Forces and acceleration, Weight and terminal velocity, Forces and braking, Momentum, Forces and elasticity.	P10 Online test set on Educake – instantly marked and direct question feedback through Educake. P10 End of topic test GCSE style questions FT and HT. P10, working scientifically and synoptic content from P1- P9. Teacher marked, feedback though model answer mark scheme and follow up exam style questions on areas of weakness – personalised.	P10 reinforces some core force concepts from P8, and goes further, applying those foundational ideas to new concepts such as momentum, and to impact forces and safety.	Writing task: car safety and importance of clear explanation Extended writing

<p>Spring</p> <p>Half</p> <p>Term 3</p>	<p>P11 Wave Properties: Nature and properties of waves, reflection and refraction.</p> <p>P12 Electromagnetic waves: The EMC Spectrum, Light, infra-red, microwaves, radio waves, Communication, Ultra violet, X-rays and gamma rays.</p>	<p>P11 Online test set on Educake – instantly marked and direct question feedback through Educake. P11 End of topic test GCSE style questions FT and HT. P11, working scientifically and synoptic content from P1- P10. Teacher marked, feedback though model answer mark scheme and follow up exam style questions on areas of weakness – personalised.</p> <p>P12 Online test set on Educake – instantly marked and direct question feedback through Educake. P12 End of topic test GCSE style questions FT and HT. P12, working scientifically and synoptic content from P1- P11. Teacher marked, feedback though model answer mark scheme and follow up exam style questions on areas of weakness – personalised.</p>	<p>P11 builds further on the ideas of forces from P10 and introduces pressure, a concept closely related to forces. It also introduces pressure in fluids, a different application of these force ideas.</p> <p>P12 builds on basic ideas about waves which were learned in the KS3 (Y8) waves module. Going further, it looks at longitudinal (sound and seismic) waves for the first time.</p>	<p>Oracy task explaining the timing and results of seismic waves in an earthquake</p> <p>Extended writing</p>
<p>Spring</p> <p>Half</p> <p>Term 4</p>	<p>P13 Electromagnetism: Magnetic fields, Magnetic fields of electrical current, the motor effect.</p>	<p>P13 Online test set on Educake – instantly marked and direct question feedback through Educake. P13 End of topic test GCSE style questions FT and HT. P13, working scientifically and synoptic content from P1- P12. Teacher marked, feedback though model answer mark scheme and follow up exam style questions on areas of weakness – personalised.</p>	<p>P13 takes the wave ideas from P12 and applies them directly to electromagnetic waves, looking at uses and applications. This then links back to and strengthens ideas about gamma radiation taught in P7.</p> <p>P14 then takes these same EM wave ideas and applies them to visible light, again building upon the KS3 waves topic with reflection and refraction. It then goes further, explaining the colours of light and lenses using the mathematical framework built up in P12.</p>	<p>Reading challenging text (scientific paper) about uses of the entire EM spectrum.</p> <p>Oracy task: clarity when explaining the complex systems such as AC generators, transformers.</p>

<p>Summer</p> <p>Half</p> <p>Term 5</p>	<p>GCSE Revision Programme</p>	<p>Use of Mastery Booklets and past papers to assess progress.</p>	<p>Reteaching key concepts from paper 1 on the run up to the first May exam, including the 3 Required Practicals for Combined Science per subject. There will also be a specific focus on Working Scientifically skills in this period. Focus will then move to paper 2 topic content and the remaining Required Practicals for this paper.</p>	<p>Extended writing</p>
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