

Y12

Content Delivered Core knowledge		Content Delivered Core knowledge		Content Delivered Core knowledge	
Autumn 1 September – October	Autumn 2 November – December	Spring 1 January - February	Spring 2 March - April	Summer 1 April - May	Summer 2 June-July
Introduction to Physics Waves and Optics Required Practical 1	Complete Waves and Optics Mechanics Required Practical 2	Materials Electricity Required Practical 4 and 5	Particles and Radiation Required Practical 6	Completion of Particles and Radiation Further Mechanics Required Practical 7	Preparation for End of Unit 1-5 and 6.1 Mocks. Required practical 12
Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:
MS0: Arithmetic and numerical computation MS1: Handling data MS3:Graphs MS4: Geometry and Trigonometry PS1: Independent thinking PS2: Use and application of scientific methods and practices PS3: Numeracy and application of mathematical concepts in a practical context AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures: • in a theoretical context • in a	MS0: Arithmetic and numerical computation MS1: Handling data MS2: Algebra MS3:Graphs MS4: Geometry and Trigonometry PS1: Independent thinking PS2: Use and application of scientific methods and practices PS3: Numeracy and application of mathematical concepts in a practical context PS4: Instruments and Equipment	MS0: Arithmetic and numerical computation MS3:Graphs MS4: Geometry and Trigonometry PS2: Use and application of scientific methods and practices PS3: Numeracy and application of mathematical concepts in a practical context PS4: Instruments and Equipment	MS0: Arithmetic and numerical computation MS1: Handling data MS2: Algebra PS1: Independent thinking	MS0: Arithmetic and numerical computation MS1: Handling data MS2: Algebra PS1: Independent thinking PS3: Numeracy and application of mathematical concepts in a practical context	MS0: Arithmetic and numerical computation MS3:Graphs MS4: Geometry and Trigonometry Revision Skills Exam Technique skills

<p>practical context • when handling qualitative data • when handling quantitative data.</p> <p>AO3: Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to: • make judgements and reach conclusions</p> <p>The AO skills are covered in all half terms across the year.</p>					
Key Knowledge (Cultural Capital and Content):	Key Knowledge (Cultural Capital and Content):	Key Knowledge (Cultural Capital and Content):	Key Knowledge (Cultural Capital and Content):	Key Knowledge (Cultural Capital and Content):	Key Knowledge (Cultural Capital and Content):
Basic skills of physics Progressive and Stationary waves	Interaction of waves with objects Mechanics Motion of objects	Materials Electricity Resistance and internal resistance	Atoms and nuclei Fundamental particles	Wave – particle duality and evidence Circular motion and simple harmonic motion	Nuclear radiation and required practical
Assessment:	Assessment:	Assessment:	Assessment:	Assessment:	Assessment:
Exam Question based Assessment on Term 1a content	Exam Question based Assessment on Term 1b content with review of some term 1a knowledge	Exam Question based Assessment on Term 2a content with review of some term 1a and 1b knowledge (mock exam format)	Exam Question based Assessment on Term 2b content with review of some term 1a , 1b and 2a knowledge	Exam Question based Assessment on Term 3a content with review of some term 1a , 1b, 2a and 2b knowledge	AS Mock Papers
Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:
Communicate information and ideas in appropriate ways using appropriate terminology	Comment on experimental design and evaluate scientific methods	Communicate information and ideas in appropriate ways using appropriate	Comment on experimental design and evaluate scientific methods	Comment on experimental design and evaluate scientific methods	Communicate information and ideas in appropriate ways using appropriate

	communicate information and ideas in appropriate ways using appropriate terminology	terminology in an examination situation	communicate information and ideas in appropriate ways using appropriate terminology	communicate information and ideas in appropriate ways using appropriate terminology	terminology in an examination situation.
Home Learning	Home Learning	Home Learning	Home Learning	Home Learning	Home Learning
Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions in a mock exam situation	Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions and completion of RP write ups.	Preparation and Revision for the application of key knowledge from lessons applied to exam questions in a mock situation

Year Group: Year 13

(Timelines e.g Autumn 1 can be adjusted depending on the needs of the subject area in order to ensure a fair reflection of the cohort's curriculum intent).

Content Delivered Core knowledge		Content Delivered Core knowledge		Content Delivered Core knowledge	
Autumn 1 September – October	Autumn 2 November – December	Spring 1 January - February	Spring 2 March - April	Summer 1 April - May	Summer 2 June-July
Thermal physics Required practical 8	Fields and their consequences Required practical 9, 10 and 11	Nuclear Physics	Option A – Astrophysics OR Option B – Medical Physics	Revision and final assessments	N/A
Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:	Key Curriculum Skills:
MS1: Handling data MS3:Graphs	MS0: Arithmetic and numerical computation MS3:Graphs	MS1: Handling data MS3:Graphs	MS0: Arithmetic and numerical computation MS1: Handling data	All MS, PS and AO skills covered	N/A

<p>PS2: Use and application of scientific methods and practices AO1: Demonstrate knowledge and understanding of scientific ideas, processes, techniques and procedures AO2: Apply knowledge and understanding of scientific ideas, processes, techniques and procedures: • in a theoretical context • in a practical context • when handling qualitative data • when handling quantitative data. AO3: Analyse, interpret and evaluate scientific information, ideas and evidence, including in relation to issues, to: • make judgements and reach conclusions The AO skills are covered in all half terms across the year.</p>	<p>MS4: Geometry and Trigonometry PS1: Independent thinking PS2: Use and application of scientific methods and practices PS4: Instruments and Equipment</p>	<p>PS3: Numeracy and application of mathematical concepts in a practical context</p>	<p>MS2: Algebra MS3: Graphs PS1: Independent thinking PS2: Use and application of scientific methods and practices PS4: Instruments and Equipment</p>		
<p>Key Knowledge (Cultural Capital and Content):</p>	<p>Key Knowledge (Cultural Capital and Content):</p>	<p>Key Knowledge (Cultural Capital and Content):</p>	<p>Key Knowledge (Cultural Capital and Content):</p>	<p>Key Knowledge (Cultural Capital and Content):</p>	<p>Key Knowledge (Cultural Capital and Content):</p>
<p>Thermal energy and gases</p>	<p>Gravitational fields Electrical Fields Magnetic Fields Electromagnetism and it's applications</p>	<p>Nuclear radiation, fission and fusion</p>	<p>Astrophysics OR Medical physics</p>		<p>N/A</p>

Assessment:	Assessment:	Assessment:	Assessment:	Assessment:	Assessment:
Exam Question based Assessment on Term 1a content with review of previous topics including year 12	Exam Question based Assessment on Term 1b content with review of previous topics including year 12	Exam Question based Assessment on Term 2a content with review of previous topics including year 12	Exam Question based Assessment on Term 2b content with review of previous topics including year 12	Final Examinations in subject 3x Exam papers Paper 1 Unit 1-5 and 6.1 Paper 2 Unit 6.2, 7 and 8 Paper 3 Section A: Practical skills and data analysis Section B: Optional unit	N/A
Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:	Literacy Curriculum:
Communicate information and ideas in appropriate ways using appropriate terminology	Comment on experimental design and evaluate scientific methods Communicate information and ideas in appropriate ways using appropriate terminology	Communicate information and ideas in appropriate ways using appropriate terminology in an examination situation	Comment on experimental design and evaluate scientific methods Communicate information and ideas in appropriate ways using appropriate terminology	Comment on experimental design and evaluate scientific methods Communicate information and ideas in appropriate ways using appropriate terminology	N/A
Home Learning	Home Learning	Home Learning	Home Learning	Home Learning	Home Learning
Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions in a mock exam situation	Application of key knowledge from lessons applied to exam questions and completion of RP write ups	Application of key knowledge from lessons applied to exam questions and completion of RP write ups.	N/A