

# Subject Overview Triple science Biology – Year 11

Year 11 triple science is where students begin to refine their understanding of the themes they have studied in their high school career, and further extend and challenge themselves with the most difficult concepts in the GCSE course

The work they complete through their five year journey will allow students to leave Rastrick High school as scientifically literate members of society.

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5
Knowledge & Skills	<p><b>Homeostasis and response (15 Lessons)</b> How the body uses hormones and nerves to maintain internal conditions</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Assessment 1A</b></p> <ul style="list-style-type: none"> <li>• Bioenergetics</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Assessment 1B</b></p> <ul style="list-style-type: none"> <li>• Adaptations &amp; Interdependence</li> </ul> </div>	<p><b>Homeostasis and response continued (15 Lessons)</b> How the body uses hormones and nerves to maintain internal conditions</p> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p><b>Assessment 2 - Mock</b></p> <ul style="list-style-type: none"> <li>• Biology paper 1</li> <li>• Biology paper 2</li> </ul> </div>	<p><b>Inheritance and variation (15 Lessons)</b> Model and explain how genetic information is inherited and causes variation.</p>	<p><b>Theories of evolution (10 Lessons)</b> Evaluate evolutionary theory, supporting evidence, and reasons for extinction.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p><b>Assessment 3</b></p> <ul style="list-style-type: none"> <li>• Inheritance, variation &amp; theories of evolution</li> </ul> </div>	<p><b>Curriculum re-teach</b> Revisit key content and skills identified from mock exam performance.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p><b>GCSE exams</b></p> <ul style="list-style-type: none"> <li>• Biology paper 1</li> <li>• Biology paper 2</li> </ul> </div>
Beyond The Curriculum	<p><b>Places to visit</b> Thackray Museum of Medicine (Leeds)</p> <p><b>Reading</b> “The Man Who Mistook His Wife for a Hat” Oliver Sacks</p>	<p><b>Places to visit</b> Thackray Museum of Medicine (Leeds)</p> <p><b>Reading</b> “The Man Who Mistook His Wife for a Hat” Oliver Sacks</p>	<p><b>Places to visit</b> Science and Industry Museum (Manchester)</p> <p><b>Reading</b> “Gregor Mendel: The Friar Who Grew Peas” Cheryl Bardoe</p>	<p><b>Places to visit</b> Yorkshire Wildlife Park (Doncaster) Ponderosa Zoo (Heckmondwike)</p> <p><b>Reading</b> “Sapiens: A Brief History of Humankind” Noah Harari</p>	
<p><b>Extra revision</b></p> <p><a href="#">YouTube: Free science lessons</a></p> <p><a href="#">Cognito Combined Science Biology</a></p> <p><a href="#">BBC bitesize</a></p>					

# Subject Overview Triple Science Chemistry – Year 11

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	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5
Knowledge & Skills	<p><b>Chemistry - Chemical analysis (10 Lessons)</b> Use techniques to separate mixtures and identify unknown substances.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Assessment 1A</b></p> <ul style="list-style-type: none"> <li>• Chemical changes - Chemistry</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Assessment 1B</b></p> <ul style="list-style-type: none"> <li>• Quantitative Chemistry</li> </ul> </div>	<p><b>Rates of reactions (16 Lessons)</b> Investigate how to measure and alter reaction rates in lab and industry</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Assessment 2 - Mock</b></p> <ul style="list-style-type: none"> <li>• Chemistry paper 1</li> <li>• Chemistry paper 2</li> </ul> </div>	<p><b>Organic chemistry (10 Lessons)</b> Understand crude oil formation, separation, uses, and environmental impact.</p>	<p><b>Using Earth's resources (15 Lessons)</b> Examine how we use natural resources and explore sustainable alternatives.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Assessment 3</b></p> <ul style="list-style-type: none"> <li>• Using Earth's resources</li> </ul> </div>	<p><b>Curriculum re-teach</b> Revisit key content and skills identified from mock exam performance.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>GCSE exams</b></p> <ul style="list-style-type: none"> <li>• Chemistry paper 1</li> <li>• Chemistry paper 2</li> </ul> </div>
Beyond The Curriculum	<p><b>Places to visit</b> National Science and Media Museum (Bradford)</p> <p><b>Reading</b> "Exploring the Elements" Isabel Thomas &amp; Sara Gillingham</p>	<p><b>Places to visit</b> Magna Science Adventure Centre (Rotherham)</p> <p><b>Reading</b> "Reactions: The Private Life of Atoms" Theodore Gray</p>	<p><b>Places to visit</b> National Coal Mining Museum (Wakefield)</p> <p><b>Reading</b> "Napoleons Buttons" Penny Le Couteur</p>	<p><b>Places to visit</b> Science and Industry Museum (Manchester)</p> <p><b>Reading</b> "This Book Will (Help) Cool the Climate" Isabel Thomas</p>	
<p><b>Extra revision</b>  <a href="#">YouTube: Free science lessons</a>  <a href="#">Cognito Combined Science Chemistry</a>  <a href="#">BBC bitesize</a></p>					

# Subject Overview Triple Science Physics – Year 11

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	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5
Knowledge & Skills	<p><b>Magnetism in depth (15 Lessons)</b> Explore magnetic fields, electromagnetism, and calculate forces using models and equations.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b>Assessment 1A</b></p> <ul style="list-style-type: none"> <li>• Domestic electricity</li> </ul> </div> <div style="border: 1px solid black; padding: 5px;"> <p><b>Assessment 1B</b></p> <ul style="list-style-type: none"> <li>• How forces affect motion</li> </ul> </div>	<p><b>Magnetism in depth (15 Lessons) continued</b> Explore magnetic fields, electromagnetism, and calculate forces using models and equations.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>Assessment 2 - Mock</b></p> <ul style="list-style-type: none"> <li>• Physics paper 1</li> <li>• Physics paper 2</li> </ul> </div>	<p><b>Curriculum re-teach</b> Revisit key content and skills identified from mock exam performance.</p>	<p><b>Curriculum re-teach</b> Revisit key content and skills identified from mock exam performance.</p>	<p><b>Curriculum re-teach</b> Revisit key content and skills identified from mock exam performance.</p> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>GCSE exams</b></p> <ul style="list-style-type: none"> <li>• Physics paper 1</li> <li>• Physics paper 2</li> </ul> </div>
Beyond The Curriculum	<p><b>Places to visit</b> Science and Industry Museum (Manchester)</p> <p><b>Reading</b> “<i>Electrified Sheep</i>” Alex Boese</p> <p><b>Physics challenge</b> <a href="#">Homepage - The Eurekas – A Limit Less Challenge</a></p>	<p><b>Places to visit</b> Science and Industry Museum (Manchester)</p> <p><b>Reading</b> “<i>Electrified Sheep</i>” Alex Boese</p> <p><b>Physics challenge</b> <a href="#">Homepage - The Eurekas – A Limit Less Challenge</a></p>			
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