



Subject		Year	Term										
AQA GCSE Physics		10	3										
Topic													
Forces													
Content (Intent)													
Prior Learning (Topic)		Electricity											
<p><b>Unit 5: Forces</b></p> <p>Students will revisit the basic concept of forces from KS3 science and GCSE Maths. They will learn in greater depth the concept of vectors and scalars and their purpose in understanding interactions between objects through contact or non-contact means. Newton’s laws of motion will be studied in greater detail whereby students will complete a required investigation into Newton’s 2<sup>nd</sup> law. A further study of Hooke’s law followed by moments, gears and levers, and pressure will support students of real life contexts, particularly in an engineering focused world.</p>													
Future Learning (Topic)		Waves											
What Knowledge and Skills will be taught (Implementation)		How will your understanding be assessed & recorded (Impact)											
<p><b>Knowledge</b></p> <ul style="list-style-type: none"> <li>The difference between scalars and vectors followed resultant forces and their connection to acceleration</li> <li>Newton’s three laws of motion, inertia mass and equations of motion undergoing uniform acceleration and conservation of momentum</li> <li>Plastic deformation of materials</li> <li>Turning moments and their calculation</li> <li>Hydraulics and the relation to pressure with calculations</li> </ul>		<p><b>Key Piece of work (Homework)</b></p> <p>Pupils given a percentage and formative feedback provided for a targeted piece of homework so that they can respond to the teacher and make progress in the topic.</p>											
<p><b>Skills</b></p> <ul style="list-style-type: none"> <li>Learning new physics equations and applying them in familiar and unfamiliar contexts.</li> <li>The application of collected data into graphs and for analysis.</li> <li>Standard Practical Skills such as reading measuring equipment with accuracy and precision, taking repeats, following methods.</li> </ul>		<p><b>End of topic test</b></p> <p>Pupils given a percentage, formative feedback and GCSE equivalent grade. Formative feedback provided.</p>											
How can parents help at home?													
<p>Ensure all class booklets are complete and homework submitted on time</p> <p>Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers.</p> <p>Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters.</p> <p>Ensure all pupils have all their resources required for science lessons, including booklets, pens and calculators</p>													
Helpful further reading/discussion (including Reading and Vocabulary Lists)													
<p><b>Reading</b></p> <p>AQA revision guides</p> <p>AQA revision cards</p> <p>EDUCAKE online learning platform.</p> <p>GCSE POD</p>		<p><b>Vocabulary Lists</b></p> <table border="0"> <tr> <td>Vectors</td> <td>Resultant force</td> </tr> <tr> <td>Scalars</td> <td>Spring constant</td> </tr> <tr> <td>Velocity</td> <td>Displacement</td> </tr> <tr> <td>Deformation</td> <td>Moments</td> </tr> <tr> <td>Momentum</td> <td>Inertia</td> </tr> </table>		Vectors	Resultant force	Scalars	Spring constant	Velocity	Displacement	Deformation	Moments	Momentum	Inertia
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