



Subject	Year	Term
Physics	10	1
Topic		
Forces (Part 2) and The Particle Model of Matter		
Content (Intent)		
Prior Learning (Topic) Forces (Part 1)		
Unit 5: Forces (Part 2) Revisiting Newton’s 2 <sup>nd</sup> law which will lead on to the topic of momentum and then followed by a further study of Hooke’s law and learning about the graphical representation. Students will also learn about moments, gears, levers and atmospheric pressure.		
Unit 3: The Particle Model of Matter Students will revisit the basics with describing states of matter – solids, liquids, and gases. They will be introduced to the density equation which will be used to in a required practical to find the densities of regular and irregular shapes. Internal energy will be developed on from the topic of energy, describing why states of matter exist, referring to intermolecular forces. Specific heat capacity will be introduced here as it relates to the Energy topic and will be further supported by a required practical. Latent heat, and the Gas laws will be introduced for the first time.		
Future Learning (Topic) Radioactivity and Atomic Structure		
What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)	
Knowledge - Forces <ul style="list-style-type: none"><li>The concept of momentum and detailed conservation of momentum - calculations</li><li>Plastic deformation of materials, using experimentation to take accurate and precise measurements. Moment and pressure calculations.</li></ul> Knowledge – The Particle Model of Matter <ul style="list-style-type: none"><li>Finding innovative means to measure the density of objects – using measuring skills and the correct equipment. Know that different states of matter have different densities.</li><li>Investigate what can affect the internal energy of a material and recording observations.</li><li>Know what specific heat capacity is and know the required practical skills needed to investigate it</li><li>Investigating Latent heat and gas laws.</li></ul>	<b>Key Piece of work (Homework)</b> Pupils given a percentage and formative feedback provided. <b>End of topic test at the of term 1</b> Pupils given a percentage and GCSE equivalent grade. Formative feedback provided. <b>Year 10 Mock Exam</b> Pupils given a percentage and GCSE equivalent grade. Formative feedback provided.  <b>Interleaving Topic:</b> Unit 1: Energy – revisiting formulae and using them in calculations.	
Maths Skills <ul style="list-style-type: none"><li>Applying new formula in familiar and unfamiliar contexts.</li><li>The application of collected data into graphs and for analysis.</li></ul> Practical Skills <ul style="list-style-type: none"><li>Reading measuring equipment with accuracy and precision, taking repeats, following methods.</li></ul>		
How can parents help at home?		
Ensure all class booklets are complete and homework submitted on time Assist in ensuring the active use of the EDUCAKE online learning platform where each pupil is given a personal log on from their teachers. Encourage pupils to revise for tests and exams and to create revision resources such as flash cards and posters. Ensure all pupils have all their resources required for science lessons, including Knowledge organisers, pens and calculators		
Helpful further reading/discussion (including Reading and Vocabulary Lists)		
Reading AQA revision guides and cards EDUCAKE online learning platform. GCSE POD	Vocabulary Lists: internal energy, specific heat capacity , latent heat,	pressure, kinetic energy, density, volume and mass