

## Year 9 KS3 Science

### Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles. Gratitude - Feeling and expressing thanks.</p> <p><b>What will I be learning about in this Learning Programme?</b> Different forces and how they can be linked together. The effects of different forces on everyday objects and life.</p> <p><b>Where have I seen this learning before?</b> Forces are measured in Newtons and can be both contact and non contact.</p> <p><b>What could I use it for?</b> GCSE science: forces and motion, how forces impact movement of objects and car safety features.</p>		<p><b>Literacy:</b></p> <ul style="list-style-type: none"> <li>Capital letters must be used at the start of sentences and for the first letter of proper nouns</li> <li>Full stops must be used at the end of a sentence</li> <li>Question marks must be used at the end of a question</li> <li>Apostrophes should only be used for possession or omission</li> <li>Days of the week and months must be spelled correctly</li> <li>Key words must be spelled correctly</li> </ul>	
<p><b>In LP4.1, I will know:</b></p> <p>how to REVISE for summative assessment; how to Complete summative assessment; how to REVIEW summative assessment.</p>	<p>10/03/25 - (WK 2)</p>	<p>Key Vocabulary</p>	<p>Homework</p> <p>Learn keyword spellings</p>
<p><b>In LP4.2, I will know:</b></p> <p>how to EXPLAIN which pairs of forces are acting on an object; how to EXPLAIN how forces deform objects in a range of situations; how to investigate the relationship between a force and the extension of a spring using the equation <math>F=ke</math>.</p>	<p>17/03/25 - (WK 1)</p>	<p>Key Vocabulary</p> <p>Newtons</p>	<p>Homework</p> <p>Learn keyword definitions</p>
<p><b>In LP4.3, I will know:</b></p> <p>how to investigate the relationship between a force and the extension of a spring; how to EXPLAIN the effect of drag forces and friction in terms of forces; how to APPLY the effects of forces at a distance to different fields.</p> <p>Extended Task.</p>	<p>24/03/25 - (WK 2)</p>	<p>Key Vocabulary</p> <p>Forces</p>	<p>Homework</p> <p>Complete knowledge organiser flipper</p>
<p><b>In LP4.4, I will know:</b></p> <p>how to complete Formative assessment and PRT task; how to calculate the weight of an object using <math>w=mg</math>; how to DESCRIBE the difference between balanced and unbalanced forces;</p>	<p>31/03/25 - (WK 1)</p>	<p>Key Vocabulary</p> <p>Friction</p>	<p>Homework</p> <p>10 core questions</p>
<p><b>In LP4.5, I will know:</b></p> <p>how to EXPLAIN factors that affect gas pressure; how to EXPLAIN how liquid pressure changes with depth; how to calculate more complex questions using pressure equation by rearranging.</p>	<p>21/04/25 - (WK 2)</p>	<p>Key Vocabulary</p> <p>Weight</p>	<p>Homework</p> <p>Literacy task</p>
<p><b>In LP4.6, I will know:</b></p> <p>how pressure is increased/decreased by simple machines; how to calculate the moment of a force using real world examples; how to DESCRIBE how a lever can be used to transmit the rotational effect of a force.</p> <p>Extended Task.</p>	<p>28/04/25 - (WK 1)</p>	<p>Key Vocabulary</p> <p>Lever</p>	<p>Homework</p> <p>KS3 exam question</p>
<p><b>In LP4.7, I will know:</b></p> <p>how to complete a formative assessment and PRT; how to EXPLAIN that changes of state are physical, not chemical, changes because the material recovers its original properties if the change is reversed; how to USE the density equation to calculate mass and volume. <math>\rho=m/v</math>.</p>	<p>05/05/25 - (WK 2)</p>	<p>Key Vocabulary</p> <p>Density</p>	<p>Homework</p> <p>Keyword/definition review</p>
<p><b>Resources to support learning:</b></p> <p>Knowledge Organiser, Science booklets on Synergy, BBC bitesize</p>			
<p><b>FFET Award Challenge for this Learning Programme:</b></p> <p>LP4 Year 9 Science: Create a fact sheet on Robert Hooke</p>			

PRT Task 1

PRT Task 2