

## Year 9 KS3 Science Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE.</p> <p>The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles.</p> <p>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 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>04/03/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Newtons</p>	<p>Homework</p> <p>Learn spellings.</p>
<p><b>In LP4.2, I will know:</b></p> <p>how to REVISE for summative assessment; how to Complete summative assessment; how to REVIEW summative assessment and complete PRT tasks.</p>	<p>11/03/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Forces</p>	<p>Homework</p> <p>Learn 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>18/03/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Friction</p>	<p>Homework</p> <p>Knowledge organiser flipper.</p>
<p><b>In LP4.4, I will know:</b></p> <p>how to calculate the weight of an object using <math>w=mg</math>; how to DESCRIBE the difference between balanced and unbalanced forces; how to EXPLAIN factors that affect gas pressure.</p>	<p>25/03/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Weight</p>	<p>Homework</p> <p>10 core questions.</p>
<p><b>In LP4.5, I will know:</b></p> <p>how to EXPLAIN how liquid pressure changes with depth; how to calculate more complex questions using pressure equation by rearranging; how to practice increased difficulty equation with multiple examples.</p>	<p>15/04/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Pressure</p>	<p>Homework</p> <p>Literacy task</p>
<p><b>In LP4.6, I will know:</b></p> <p>how to COMPLETE a formative assessment and pupil response task; how pressure is increased/decreased by simple machines; how to calculate the moment of a force using real world examples.</p> <p>Extended Task.</p>	<p>22/04/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Moment</p>	<p>Homework</p> <p>KS3 exam question</p>
<p><b>In LP4.7, I will know:</b></p> <p>how to DESCRIBE how a lever can be used to transmit the rotational effect of a force; 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>29/04/24 - (WK 1)</p> <p>Key Vocabulary</p> <p>Lever</p>	<p>Homework</p> <p>Keyword/definition review</p>
<p><b>In LP4.8, I will know:</b></p> <p>how to USE Eureka cans to measure the volume of irregular shaped objects; how to ANALYSE results of density practical and draw a graph; how to USE the density equation to calculate mass and volume in liquids.</p>	<p>06/05/24 - (WK 2)</p> <p>Key Vocabulary</p> <p>Density</p>	<p>Homework</p> <p>Revision mind map</p>
<p><b>Resources to support learning:</b> Knowledge Organiser, Science booklets, BBC bitesize, MS Teams, OAK academy.</p>		
<p><b>FFET Award Challenge for this Learning Programme:</b> LP4 Year 9 Science: Create a fact sheet on Robert Hooke</p>		

PRT Task 1

PRT Task 2