

Year 10 GCSE Physics Learning Programme 5

The LORIC skill focus for his LP is: COMMUNICATION. The Moral Virtues focus for this LP are: COURAGE and HUMILITY.		Literacy: <ul style="list-style-type: none"> Capital letters must be used at the start of sentences and for the first letter of proper nouns Full stops must be used at the end of a sentence Question marks must be used at the end of a question Apostrophes should only be used for possession or omission Days of the week and months must be spelled correctly Key words must be spelled correctly
Courage - Acting with bravery and overcoming fears. Humility - Having a modest view of oneself.		
What will I be learning about in this Learning Programme? How the fundamental principles of how objects interact, the difference between scalars and vectors, and the nature of contact and non-contact forces.		
Where have I seen this learning before? You will have studied forces at KS3.		
What could I use it for? Mechanics at KS5 is the basis for all engineering degrees.		

In LP5.1, I will know:	11/05/26 - (WK 1)	Key Vocabulary	Homework
how to explain the difference between vectors and scalars, and categorise the forces as contact or non-contact; how to calculate the weight of an object and explain the difference between mass and weight is dependent on the gravitational field strength at the object's location; how to use free body diagrams to represent the direction of the resultant force for a pair of forces acting on an object in a line.		Scalar	Sparx Learning Homework Tasks

In LP5.2, I will know:	18/05/26 - (WK 2)	Key Vocabulary	Homework
how to use scale diagrams to find the resultant force when two forces are perpendicular to each other; how to use scale diagrams of parallelograms to find the resultant force when two forces are not perpendicular to each other.		Vector	Sparx Learning Homework Tasks

LP5 RLW, I will:	01/06/26 - (WK 1)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		Contact force	Sparx Learning Homework Tasks

In LP5.3, I will know:	08/05/26 - (WK 2)	Key Vocabulary	Homework
how to resolve a force into two components that have the same combined effect as the resultant force; how to calculate the work done by a force when moving an object - $W = F \cdot d$. Extended Task.		Contact force	Sparx Learning Homework Tasks

In LP5.4, I will know:	15/06/26 - (WK 1)	Key Vocabulary	Homework
Year 10 Mock exam week		Resultant	Sparx Learning Homework Tasks

In LP5.5, I will know:	22/06/26 - (WK 2)	Key Vocabulary	Homework
Year 10 Mock exam week		Elastic	Sparx Learning Homework Tasks

In LP5.6, I will know:	29/06/26 - (WK 1)	Key Vocabulary	Homework
how to describe elastic and inelastic deformation; how to use Hooke's law to describe the relationship between the extension and force applied to spring; how to complete required practical 6: Investigating springs. Extended Task.		Deformation	Sparx Learning Homework Tasks

In LP5.7, I will know:	06/07/26 - (WK 2)	Key Vocabulary	Homework
how to respond to my strengths and weaknesses following the Physics Mock exam; how to calculate the work done and elastic potential energy of a stretched/compressed object.		Proportional	Sparx Learning Homework Tasks

Resources to support learning:	
EPC Knowledge organiser, Synergy, GCSE Physics BBC Bitesize GCSE Physics contact forces, YouTube.	

FFET Award Challenge for this Learning Programme:
Use your knowledge of forces in everyday life to make a process easier or look for simple machines that do this. Review this and share with your class.

