

Year 11 GCSE Physics

Learning Programme 1

The LORIC skill focus for his LP is: LEADERSHIP The Moral Virtues focus for this LP are: COURAGE and HUMILITY.			Literacy Non-Negotiables: • 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 • Vocabulary to be taught using the Frayer model	
Courage - Acting with bravery and overcoming fears. I will show courage by answering a question in class even when I'm not 100% sure of the answer. Humility - Having a modest view of oneself. I will show humility by admitting mistakes and asking for help when needed.				
What will I be learning about in this Learning Programme? How forces can be used to explain and predict deformation, rotation and pressure changes. Where have I seen this learning before? You have explored basic forces and motion at KS3 and in primary school. What could I use it for? You will apply your understanding of forces to more complex situations in A-level Physics. Understanding forces is crucial for mechanical and civil engineering, sport, building/construction, astrophysics and architecture.				
In LP1.1, I will know: how to describe the differences between vectors and scalars, contact and non-contact forces, and labelling the forces on free body diagrams; how to describe weight as the force acting on an object due to gravity, and use the equation $W=mg$.		01/09/26 - (WK 1)	Key Vocabulary Vector	Homework Sparx Science
In LP1.2, I will know: how to find the resultant of two forces acting on an object along the same line, using scale diagrams or calculations; how to find the resultant of two forces acting at right angles to each other, using scale diagrams; how to use parallelogram scale diagrams to find the resultant of two forces acting not at right angles to each other.		07/09/26 - (WK 2)	Key Vocabulary Resolve	Homework Sparx Science
In LP1.3, I will know: how to describe the energy transfers that are involved when work is done on an object, and work done by a force on an object can be calculated using $W=Fs$; how to describe an object that has been bent, stretched or compressed as being elastically deformed or inelastically deformed, and use the equation $F=ke$. Extended Task.		14/09/26 - (WK 1)	Key Vocabulary Equilibrium	Homework Sparx Science
In LP1.4, I will know: how to calculate the work done in stretching (or compressing) a spring using $E_e = \frac{1}{2} ke^2$; RP6: investigate the relationship between force and extension for a spring; my strengths and areas for developments following the LP1 formative assessment and PRT;		21/09/26 - (WK 2)	Key Vocabulary Proportionality	Homework Sparx Science
In LP1.5, I will know: how to describe a moment as the turning effect of a force and to use the equation $M = Fd$, where d is the perpendicular distance from the line of action of the force to the pivot; how to explain how levers and gears transmit the rotational effects of forces.		28/09/26 - (WK 1)	Key Vocabulary Moment	Homework Sparx Science
In LP1.6, I will know: how to describe pressure in fluids causes a force normal (at right angles) to any surface, and to use the calculation $p = F \div A$; how explain changes in atmospheric pressure or a column of liquid, and use the equation $p = h\rho g$; how to define upthrust and describe the factors which influence floating and sinking. Extended Task.		05/10/26 - (WK 2)	Key Vocabulary Pressure	Homework Sparx Science
In LP1.7, I will know: how to rearrange pressure calculations and answer 6mark questions involving pressure; my strengths and areas for developments following the LP1 summative assessment and PRT.		12/10/26 - (WK 1)	Key Vocabulary Upthrust	Homework Sparx Science
Resources to support learning: EPC Knowledge organisers, BBC Bitesize AQA GCSE Physics, Synergy.				
FFET Award Challenge for this Learning Programme: Make a revision resource on a topic you need to improve on from Yr10.				

PRT Task 1

PRT Task 2