



Year 12 Modelling Physics **Learning Programme 3**

Learning Programme 3		
The LORIC skill focus for his LP is: RESILIENCE		Literacy:
The Moral Virtues focus for this LP are: RESPECT and JUSTICE		Capital letters must be used at the start
Respect - treat others how you would wish to be treated yourself.		of sentences and for the first letter of
Justice - our College rules are fair and reasonable.		proper nouns • Full stops must be used at the end of a
What will I be learning about in this Learning Programme?		sentence
You will be learning about Newton's Laws of motion, moments and pressure in fluids.		Question marks must be used at the
		end of a question
		Apostrophes should only be used for
Where have I seen this learning before?		possession or omission
This unit builds on the mechanics topics from LP1 and 2, and KS4		 Days of the week and months must be spelled correctly
		Key words must be spelled correctly
What could I use it for?		
Most aspects of physics require the understanding of Newton's Laws of Motion - used in engineering, architecture, fluid dynamics.		
In LP3.1, I will know: 06/01/25 - (WK 2)	You Vocabulant	Homowork
How to calculate the weight of an object using W = mg;	Key Vocabulary	Homework Weight and mass past paper questions
how to find the centre of mass of regular in irregular shaped objects.		
	Weight, mass	
In LP3.2, I will know: 13/01/25 - (WK 1)	Key Vocabulary	Homework
State and explain Newton's laws of motion and how to apply Newton's Second law of motion;		Terminal velocity exam questions
how to represent forces on free body diagrams;	Newton's laws,	
how to define drag and use it to explain why falling objects reach terminal velocity.	terminal velocity	
In LP3.3, I will know: 20/01/25 - (WK 2) How to define and calculate moments, torques and couples;	Key Vocabulary	Homework Mamonts avam quastions
how to apply the principle of moments to both balanced and unbalanced systems.		Moments exam questions
in the appropriate principle and included a sound and a sound a sound and a sound and a sound a so	Moments, torque	
	and couples	
In LP3.4, I will know: 27/01/25 - (WK 1)	Key Vocabulary	Homework
How to apply equilibrium of objects under the action of forces and torques;		Revision
how to solve problems using the rule of triangle of forces.		
LP3.1 formative assessment.	Equilibrium	
F.Adad Task		
Extended Task.	VVbl	Haraconada .
In LP3.5, I will know: How to describe pressure for solids, liquids, and gases;	Key Vocabulary	Pressure exam questions
how to apply Archimedes' principle and use the equation p = h p g to calculate the upthrust acting on an object in a fluid;		ressure exam questions
my strengths and areas for developments following the LP3.1 formative assessment and PRT.	Pressure	
In LP3.6, I will know: 10/02/25 - (WK 1)	Key Vocabulary	Homework
How to define work done by a force and recall that the unit for work done is the joule;	Rey Vocabulary	Work done exam questions
how to use W = Fs x $\cos \theta$ to calculate the work done by a force.		·
	Work done	
LP3 RLW, I will: 24/02/25 - (WK 2)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		
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In LP3.7, I will know: 03/03/25 - (WK 1)	Key Vocabulary	Homework
How to define and apply the principle of conservation of energy;	Rey vocabulary	Conservation of energy exam questions
how to describe and carry out calculations for situations involving the transfer of energy between different forms, how to describe the		Table Total of Chergy Exam questions
exchange between gravitational potential energy and kinetic energy;	Energy	
my strengths and areas for developments following the LP3.2 formative assessment and PRT.	Liicigy	
Extended Task.		



Knowledge organiser, Isaac physics, www.physicsandmathstutor.com, text book

FFET Award Challenge for this Learning Programme:

LP3 Year 12 Physics : Support with lower school STEM Club