

Year 13 Mathematics Pure Learning Programme 2

<p>The LORIC skill focus for this LP is: ORGANISATION</p> <p>The Moral Virtues focus for this LP are: COMPASSION and HONESTY</p> <p>Compassion - the quality of feeling pity and concern for the sufferings or misfortunes of others.</p> <p>Honesty - the quality of being truthful.</p> <p>What will I be learning about in this Learning Programme?</p> <p>In LP2 I will be learning about trigonometry, parametric equations and differentiation.</p> <p>Where have I seen this learning before?</p> <p>Year 12: Polynomial differentiation, trigonometric functions and equations and graphs.</p> <p>What could I use it for?</p> <p>The knowledge and skills I will learn in this learning programme will allow me to solve calculus problems. These skills are used in engineering.</p>	<p>Literacy:</p> <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
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In LP2.1, I will know:	21/10/24 - (WK 2)	Key Vocabulary	Homework
how to solve trigonometric equations; how to write expressions in the form $R\cos(\theta \pm \alpha)$ and $R\sin(\theta \pm \alpha)$; how to prove the trigonometric identities.		Identity	Trigonometric Equations

In LP2.2, I will know:	04/11/24 - (WK 1)	Key Vocabulary	Homework
how to recognise and use parametric equations; how to convert parametric equations into cartesian form using trigonometric identities; how to sketch and use curves of parametric equations.		Parametric	Parametric Equations

LP2 RLW, I will:	11/11/24 - (WK 2)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.			

In LP2.3, I will know:	18/11/24 - (WK 1)	Key Vocabulary	Homework
how to find points of intersection of parametric equations; how to use parametric equations to model.		Intersection	Parametric Equations
Extended Task.			



In LP2.4, I will know:	25/11/24 - (WK 2)	Key Vocabulary	Homework
how to differentiate $\sin x$ and $\cos x$; how to differentiate exponentials and logarithms.		Derivative	Differentiation

In LP2.5, I will know:	02/12/24 - (WK 1)	Key Vocabulary	Homework
how to use the chain rule for differentiation; how to use the product rule for differentiation.		Product	Chain Rule

In LP2.6, I will know:	09/12/24 - (WK 2)	Key Vocabulary	Homework
how to use the quotient rule for differentiation; how to differentiate trigonometric functions.		Quotient	Quotient Rule
Extended Task.			



In LP2.7, I will know:	16/12/24 - (WK 1)	Key Vocabulary	Homework
how to differentiate with parametric equations; how to differentiate implicitly.		Implicit	Implicit Differentiation

Resources to support learning:
Use your knowledge organisers to support with revision and recall. Here are some online resources to further support you in your Mathematics revision beyond the classroom. All weekly homework tasks area based on the exercises from the book. In addition to homework, Pupils should use questions not used in class plus the review exercises to help support learning from outside the classroom. Online Resource for homework and exam practice: https://www.drfrostmaths.com/ . Topic based exam questions - https://www.mathsgenie.co.uk/

FFET Award Challenge for this Learning Programme:
Independently complete an exam question on a topic of your choice from LP2.