The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 12 Mathematics Mrs McAveety
Learning Programme 2

The LORIC skill focus for his LP is: ORGANISATION
The Moral Virtues focus for this LP are: COMPASSION and HONESTY

Compassion - the quality of feeling pity and concern for the sufferings or misfortunes of others.
Honesty - the quality of being truthful.

What will I be learning about in this Learning Programme?
In LP2 I will be learning about forces, polynomials, proof, binomial expansion and trigonometry.

Where have I seen this learning before?
GCSE: algebraic manipulation, simple proof, expanding brackets.

What could I use it for?
The knowledge and skills I will learn in this learning programme will allow me to solve algebraic problems using polynomials and Binomial expansion. This knowledge can be applied to coding and computer science.

Literacy:
- 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

In LP2.1, I will know:	**19/10/26 - (WK 2)**	**Frayer Model Word**	**Homework**
how to solve kinematics problems involving forces and motion; how to solve kinematics problems in two dimensions.		Equilibrium	Forces
In LP2.2, I will know:	**02/11/26 - (WK 1)**	**Frayer Model Word**	**Homework**
how to solve connected particle problems for horizontal motion; how to solve connected particle problems for vertical motion.		Tension	Connected Particles
LP2 RLW, I will:	**09/11/26 - (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:	**16/11/26 - (WK 1)**	**Frayer Model Word**	**Homework**
how to manipulate and solve with algebraic fractions; how to divide one polynomial by another; how to use the factor theorem. Extended Task.		Polynomial	Factor theorem
In LP2.4, I will know:	**23/11/26 - (WK 2)**	**Frayer Model Word**	**Homework**
how to prove mathematical statements algebraically.		Proof	Algebraic Proof
In LP2.5, I will know:	**30/11/26 - (WK 1)**	**Frayer Model Word**	**Homework**
how to use Pascal's triangle and factorials; how to expand expressions using Binomial expansion.		Factorial	Binomial Expansion 1
In LP2.6, I will know:	**07/12/26 - (WK 2)**	**Frayer Model Word**	**Homework**
how to solve problems using Binomial expansion; how to solve Binomial estimation problems. Extended Task.		Binomial	Binomial Expansion 2
In LP2.7, I will know:	**14/12/26 - (WK 1)**	**Frayer Model Word**	**Homework**
how to find the area of any triangle using sine; how to solve problems with the sine rule; how to solve problems with the cosine rule.		Cosine	Trigonometry

PRT Task 1

PRT Task 2

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:

Create a revision mind map for the topics taught in LP2. Include all key formulae and facts.