The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 11 Physics
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?
The effect of forces on objects and how to use Newtons Laws to explain motion.

Where have I seen this learning before?
You have explored basic forces and motion at KS3 and in primary school.
During LP1 we began to study foces and we will be further developing this understanding.

What could I use it for?
Understanding forces is crucial for mechanical and civil engineering, sport, building/construction, astrophysics and architecture.

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)**	**Key Vocabulary**	**Homework**
how to distinguish between distance and diplacement, and speed and velocity; how to calculate speed and velocity; how to define and calculate acceleration.	Displacement	Complete task on Sparx Science.
In LP2.2, I will know: **02/11/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to analyse motion graphs, including distance-time and velocity-time graphs; how to explain Newton's Laws and recognise examples of Newton's 1st and 3rd law in action.	Velocity	Complete task on Sparx Science.
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.		Complete task on Sparx Science.
In LP2.3, I will know: **16/11/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to describe the relationship between force, mass and acceleration = Newtons 2nd Law; how to explain why an object reaches terminal velocity in terms of the forces involved and acceleration; how to investigate the acceleration of an object by varying the force or mass - REQUIRED PRACTICAL. Extended Task.	Acceleration	Complete task on Sparx Science.
In LP2.4, I will know: **23/11/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to complete an assessment in exam conditions.		Complete task on Sparx Science.
In LP2.5, I will know: **30/11/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to describe and explain the factors that affect both thinking distance and braking distance. Describe an experiment used to estimate reaction times; how to interpret graphs of stopping distances and estimate the forces required to produce a deceleration on an object.	Reaction time	Complete task on Sparx Science.
In LP2.6, I will know: **07/12/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to define momentum, apply and rearrange the equation p=mv and describe the conservation of momentum in closed systems (collisions or explosions); how to explain when a force acts on an object that is moving a change in momentum occurs. Extended Task.	Collision	Complete task on Sparx Science.
In LP2.7, I will know: **14/12/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to complete the LP2.2 Formative assessment; how to review and improve my learning through PRT. review my attainment in assessments and close gaps in my learning.	Momentum	Complete task on Sparx Science.

PRT Task 1

PRT Task 2

Resources to support learning:
EPC Knowledge organiser, BBC GCSE Bitesize, Synergy, Cognito videos.

FFET Award Challenge for this Learning Programme:
Complete a practice paper independently.