The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 9 Science
Learning Programme 5

The LORIC skill focus for his LP is: COMMUNICATION.
The Moral Virtues focus for this LP are: COURAGE and HUMILITY.

Courage - Acting with bravery and overcoming fears.
Humility - Having a modest view of oneself.

What will I be learning about in this Learning Programme?
Describing motion, speed and the quantitative relationship between average speed, distance and time (speed = distance ÷ time), the representation of a journey on a distance-time graph and relative motion of trains and cars passing one another.

Where have I seen this learning before?
KS2 Forces and KS3 forces

What could I use it for?
GCSE science: forces and motion, how forces impact movement of objects and car safety features.

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 LP5.1, I will know: 13/05/24 - (WK 1)	Key Vocabulary	Homework
how to analyse results of density practical and draw a graph; how to explain that internal energy is the total kinetic energy and potential energy of all the particles that make up a system; how to explain the difference between scalar and vector quantities, with examples.	Scalar	Learn spellings.

In LP5.2, I will know: 20/05/24 - (WK 2)	Key Vocabulary	Homework
how to practice increased difficulty s=d/t equation with multiple examples; how to draw and interpret distance/time graphs; how to explain the difference between acceleration and deceleration.	Speed	Learn definitions.

In LP5.3, I will know: 03/06/24 - (WK 1)	Key Vocabulary	Homework
how to investigate the acceleration of an object; how to explain how to use a velocity time graph to deduce whether or not accelerating or decelerating; how to explain how resultant forces acting on an object change. Extended Task.	Acceleration	Knowledge organiser flipper.

PRT Task 1

In LP5.4, I will know: 10/06/24 - (WK 2)	Key Vocabulary	Homework
how to analyse why parachutes can reduce terminal velocity; how to analyse results of terminal velocity practical and draw a graph; how to explain what can increase or decrease the stopping distance of a vehicle;	Terminal velocity	KS3 exam question

In LP5.5, I will know: 17/06/24 - (WK 1)	Key Vocabulary	Homework
how to revise LP1 content for summative assessment; how to revise LP2 content for summative assessment; how to revise LP3 content for summative assessment.	Revision	Revision task.

In LP5.6, I will know: 24/06/24 - (WK 2)	Key Vocabulary	Homework
how to revise LP4 content for summative assessment; how to complete summative assessment; my strengths and areas of development. Extended Task.	Assessment	KS3 Exam question.

PRT Task 2

In LP5.7, I will know: 01/07/24 - (WK 1)	Key Vocabulary	Homework
how to explain what can increase or decrease the stopping distance of a vehicle; how to understand what relative motion is; how to describe what momentum means for a closed system.	Stopping distance	Keyword/definition review.

In LP5.8, I will know: 08/07/24 - (WK 2)	Key Vocabulary	Homework
how to explain that momentum is conserved in a collision; how to understand that the time taken for a complete stop reduces impact; how to describe how safety features in cars reduce the risk of injury.	Car safety	Literacy and numeracy task.

Resources to support learning:
Booklet, Knowledge organiser, BBC bitesize, MS TEAMS and KS3 revision resources.

FFET Award Challenge for this Learning Programme:
Design a resource about stopping distances in cars. Speak to parents/carers about the highway code and explain what factors increase/decrease stopping distances in cars.