The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 11 Combined Science Chemistry
Learning Programme 1

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

Courage - Acting with bravery and overcoming fears. I will show courage by answering a question in class even when I'm not 100% sure of the answer.
Humility - Having a modest view of oneself. I will show humility by admitting mistakes and asking for help when needed.

What will I be learning about in this Learning Programme?
How energy is transferred in a chemical reaction, how different factors affect the rate of a reaction.

Where have I seen this learning before?
You will have studied chemical reactions at KS3.

What could I use it for?
Rates and equilibria at KS5.

Literacy Non-Negotiables:
- 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
- Vocabulary to be taught using the Frayer model

In LP1.1, I will know:	**01/09/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to explain the difference between endothermic and exothermic reactions and draw appropriate reaction profiles		Exothermic	Sparx science homework task
In LP1.2, I will know:	**07/09/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to complete the calorimetry required practical		Reaction	Sparx science homework task
In LP1.3, I will know:	**14/09/26 - (WK 1)**	**Key Vocabulary**	**Homework**
Calculate bond energies how to calculate the rate of a reaction Extended Task.		Rate	Sparx science homework task
In LP1.4, I will know:	**21/09/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to calculate the rate of a reaction using tangents (H tier only).		Tangent	Sparx science homework task
In LP1.5, I will know:	**28/09/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how rates of a reaction are affected by; surface area, temperature, concentration; how to explain this by linking to collision theory;		Product	Sparx science homework task
In LP1.6, I will know:	**05/10/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to undertake the two concentration required practical's (volume of gas and turbidity). Extended Task.		Concentration	Sparx science homework task
In LP1.7, I will know:	**12/10/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how rates of a reaction are affected by pressure and catalysts; how to explain this by linking to collision theory.		Catalyst	Sparx science homework task

PRT Task 1

PRT Task 2

Resources to support learning:
Knowledge organiser, Topic Booklet, Oak Academy, Microsoft TEAMS and GCSE Bitesize

FFET Award Challenge for this Learning Programme:
LP1 - Create a poster to show examples of exothermic and endothermic reactions that happen in everyday life