The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 12 Chemistry T2
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?
Bonding in substances and various patterns and properties of elements within the periodic table.

Where have I seen this learning before?
Key stage 4 chemistry: bonding and structure, patterns across and down the periodic table.

What could I use it for?
Analysis of the behaviour of compounds, further inorganic study at university level.

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**
Understand the difference between induced and permanent dipoles and how hydrogen bonding impacts the properties of a substance.		Dipole	Hydrogen bonding Past paper question.
In LP2.2, I will know:	**02/11/26 - (WK 1)**	**Key Vocabulary**	**Homework**
Illustrate and apply knowledge of Hydrogen bonding and understand the anomalous properties of water.		Anomaly	Properties of water past paper question.
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)**	**Key Vocabulary**	**Homework**
Understand the term Periodicity and identify and explain trends within the periodic table. Extended Task.		Periodicity	Periodicity past paper question.
In LP2.4, I will know:	**23/11/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to explain chemical and physical properties of group 2 elements; how to predict the products of reactions of group 2 compounds. Review and improve my learning through formative assessment and PRT.		Element	Group 2 past paper question.
In LP2.5, I will know:	**30/11/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to explain the existence of halogens as diatomic molecules and explanation of the trend in the boiling points of Cl2, Br2 and I2, in terms of induced dipole–dipole interactions (London forces); How to complete an assessment in Science to review my progress.		Halogens	Group 7 past paper question.
In LP2.6, I will know:	**07/12/26 - (WK 2)**	**Key Vocabulary**	**Homework**
how to explain the term disproportionation as oxidation and reduction of the same element. Extended Task.		Qualitative analysis	Disproportionation past paper question.
In LP2.7, I will know:	**14/12/26 - (WK 1)**	**Key Vocabulary**	**Homework**
how to analyse ions on a test-tube scale; how to list and describe the processes and techniques needed to identify the following anions in an unknown compound? CO32–, by reaction with H+(aq) forming CO2(g) SO42– , by precipitation with Ba2+(aq) forming CO2(g) Cl–, Br–, I–; Review my attainment in assessments and close gaps in my learning.		Enthalpy	Testing for ions past paper question.

PRT Task 1

PRT Task 2

Resources to support learning:
EPC Knowledge organiser, Synergy, machem guy YouTube videos, knock hardy, a level chemistry.co.uk

FFET Award Challenge for this Learning Programme:
Complete three independent learning tasks and evaluate how they have helped you.