The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 12 Applied Science Teacher 1
Learning Programme 3

The LORIC skill focus for his LP is: RESILIENCE.
The Moral Virtues focus for this LP are: RESPECT and JUSTICE

Respect - treat others how you would wish to be treated yourself.
Justice - our College rules are fair and reasonable.

What will I be learning about in this Learning Programme?
You are learning about different properties of chemicals and why these different properties are present, as well as the characteristics of waves.

Where have I seen this learning before?
You will have learnt about the Periodic Table in GCSE Chemistry and about waves in GCSE Physics.

What could I use it for?
You will use this knowledge again if you study a BSc (Hons) in Chemistry or do an apprenticeship as a communications engineer.

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 LP3.1, I will know: 08/01/24 - (WK 2)	Key Vocabulary	Homework
how to describe and explain different types of intermolecular forces; how to write and balance symbol equations.	intermolecular	Exam questions on balancing equations.

In LP3.2, I will know: 15/01/24 - (WK 1)	Key Vocabulary	Homework
how to use balanced symbol equations to work out moles, molar masses and molarities; how to calculate empirical formula.	empirical	Exam questions on empirical formula.

PRT Task 1

In LP3.3, I will know: 22/01/24 - (WK 2)	Key Vocabulary	Homework
how to calculate reaction quantities and yield; the organisation of the Periodic Table. Extended Task.	yield	Exam questions on yields and quantities.

In LP3.4, I will know: 29/01/24 - (WK 1)	Key Vocabulary	Homework
atoms by atomic and ionic radius; trends in electronegativity, ionisation energy, electron affinity, melting and boiling points.	radius	Exam questions on atomic and ionic radius.

In LP3.5, I will know: 05/02/24 - (WK 2)	Key Vocabulary	Homework
the products of reactions of metals with oxygen, water, hydrochloric and sulphuric acid; my strengths and areas for development for my learning so far.	products	Exam questions on reactions of metals.

PRT Task 2

In LP3.6, I will know: 12/02/24 - (WK 1)	Key Vocabulary	Homework
metals in order of reactivity and explain the trends; how to write half equations for oxidation and reduction reactions and link to the oxidative states of transition metal ions. Extended Task.	oxidation	Exam questions on redox reactions.

In LP3.7, I will know: 26/02/24 - (WK 2)	Key Vocabulary	Homework
displacement reactions in metals and halogens; to identify oscillations, periods, amplitude, wavelength and frequency using graphical representations of wave formation.	displacement	Exam questions on displacement.

Resources to support learning:
https://www.youtube.com/watch?v=vkdmZb4cqmw
https://www.youtube.com/watch?v=DfHZwoup_JY

FFET Award Challenge for this Learning Programme:
Summarise your learning about atoms and the periodic table on a poster.