The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 12 Applied Science Teacher 2
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?
Preparing a standard solution, how to carryout titration, how to record pH using various methods, how to carry out colorimetry to determine concentration.

Where have I seen this learning before?
Neutralisation in GCSE Chemistry, light in GCSE Physics, both topics covered at KS3.

What could I use it for?
In year 13 Unit 3 which is externally examined, any Science degree or career will use titration and colorimetry.

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
the introduction, equipment, method and safety for the cooling curve of paraffin wax; how to carry out the experiment to determine the melting point of paraffin wax.	paraffin wax	Write up coursework on paraffin wax.
In LP3.2, I will know: 15/01/24 - (WK 1)	**Key Vocabulary**	**Homework**
how to analyse and evaluate the paraffin wax investigation.	analysis	Write up coursework on paraffin wax.
In LP3.3, I will know: 22/01/24 - (WK 2)	**Key Vocabulary**	**Homework**
how to review my work on assignment C and act on suggested improvements to raise my grade. Extended Task.	review	Write up coursework on chromatography.
In LP3.4, I will know: 29/01/24 - (WK 1)	**Key Vocabulary**	**Homework**
the introduction, equipment, method and safety for the preparation of a primary standard solution; how to make a primary standard solution of sodium carbonate and calibrate an electronic balance.	standard solution	Write up coursework on titration.
In LP3.5, I will know: 05/02/24 - (WK 2)	**Key Vocabulary**	**Homework**
the introduction, equipment, method and safety for titration of a secondary standard solution using a primary standard solution; how to use data obtained from titration to calculate concentration.	secondary standard	Write up coursework on titration.
In LP3.6, I will know: 12/02/24 - (WK 1)	**Key Vocabulary**	**Homework**
what the data and concentration showed us from this practical; improvements needed to make the investigation better. Extended Task.	concentration	Write up coursework on titration.
In LP3.7, I will know: 26/02/24 - (WK 2)	**Key Vocabulary**	**Homework**
the introduction, equipment, method and safety for titration of sodium hydroxide and hydrochloric acid; how to use data obtained from titration to calculate concentration.	titration	Write up coursework on titration.

PRT Task 1

PRT Task 2

Resources to support learning:
https://chemrevise.files.wordpress.com/2016/08/1-25-titrations.pdf

FFET Award Challenge for this Learning Programme:
Research and create a fact file on important experiments throughout history. Evaluate their method and the conclusions drawn.