The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year12 Applied Science
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?
You will learn how to make a primary standard solution and how to use this to determine concentration through titration and concentration calculations.

Where have I seen this learning before?
You will have learnt about neutralisation in KS3 and in GCSE Chemistry. Titrations were covered in triple Chemistry.

What could I use it for?
This could be used in any bachelor of science degree as well as Analytical Chemistry and Pharmacology.

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
what primary and secondary standard solutions are; how to produce a primary standard solution of sodium carbonate.	secondary standard	
In LP2.2, I will know: 02/11/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to calculate percentage error for the sodium carbonate solution that has been prepared; how to calculate the concentration of the sodium carbonate solution.	concentration	
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**
how to carry out simple dilution and how to calculate the concentration of solution from this. Extended Task.	dilution	
In LP2.4, I will know: 23/11/26 - (WK 2)	**Key Vocabulary**	**Homework**
how to carry out a rough titration to determine the concentration of hydrochloric acid; complete a titration of hydrochloric acid with sodium carbonate to work out concentration. review and improve my learning through formative assessment and PRT	titration	
In LP2.5, I will know: 30/11/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to calculate concentration using the results from an accurate titration; how to analyse and evaluate the investigation. how to complete an assessment in science to review my progress	evaluation	
In LP2.6, I will know: 07/12/26 - (WK 2)	**Key Vocabulary**	**Homework**
how to draw accurate and reliable conclusions in science; how to choose the correct indicator for the investigation. Extended Task.	reliability	
In LP2.7, I will know: 14/12/26 - (WK 1)	**Key Vocabulary**	**Homework**
how to carry out a rough titration of sodium hydroxide and hydrochloric acid; how to use the results of a rough titration to make the accurate titration more accurate. review and improve my learning through formative assessment and PRT review my attainment in assessments and close gaps in my learning	accuracy	

PRT Task 1

PRT Task 2

Resources to support learning:
Knowledge organiser, Synergy.
https://www.youtube.com/watch?v=f6fN6xGpv64

FFET Award Challenge for this Learning Programme:
Help out in a STEM Club.