The Ellesmere Port C of E College

Part of the Frank Field Education Trust

Year 10 Chemistry
Learning Programme 3

The LORIC skill focus for his LP is: RESILIENCE
Respect - treat others how you would wish to be treated yourself.
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?
How to calculate the number of moles in reactions involving solid, gases and solutions. How to complete a titration and how to identify the products of acid reactions using ionic equations.

Where have I seen this learning before?
Acids at KS3

What could I use it for?
Chemistry calculations are used across the course and on into KS5.

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: 06/01/25 - (WK 2)	Key Vocabulary	Homework
how to calculate the number of moles or mass of a substance from data supplied; how to calculate the number of moles of a substance using molar ratio and balanced symbol equations; how to use balanced symbol equations to calculate reacting masses.	Mole	Retrieval Questions based on LP2
In LP3.2, I will know: 13/01/25 - (WK 1)	**Key Vocabulary**	**Homework**
how to use balanced symbol equations to calculate reacting masses; how to use balanced symbol equations to calculate reacting masses when there is a limiting reactant.	Limiting Reactant	PPQ on balanced equations
In LP3.3, I will know: 20/01/25 - (WK 2)	**Key Vocabulary**	**Homework**
how to calculate the percentage yield using a variety of units and conversions and evaluate different reactions to decide the best production method of a chemical; how to calculate the mass of a chemical when any volume and concentration is given and independently express your answer to an appropriate number of significant figures;	Percentage Yield	Retrieval Questions based on moles
In LP3.4, I will know: 27/01/25 - (WK 1)	**Key Vocabulary**	**Homework**
how precise results are obtained in a titration; how to calculate the unknown concentration of a reactant in a neutralisation reaction when the volumes are known and the concentration of one reactant is also known. Extended Task.	Concordant Results	PPQ based on quantitative chemistry so far
In LP3.5, I will know: 03/02/25 - (WK 2)	**Key Vocabulary**	**Homework**
how to calculate the moles or volume of a gaseous substance involved in a chemical reaction.	Volume	Retrieval Questions based on quantitative chemistry
In LP3.6, I will know: 10/02/25 - (WK 1)	**Key Vocabulary**	**Homework**
how to construct the balanced formula of an ionic compound using ion charges; how to write balanced symbol equations, with state symbols, for the metals listed in the reactivity series reacting with oxygen, water, and acid.	Ion	PPQ based on Ionic Compounds
LP3 RLW, I will: 24/02/25 - (WK 2)		
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		
In LP3.7, I will know: 03/03/25 - (WK 1)	**Key Vocabulary**	**Homework**
how to describe displacement reactions using ionic equations. Extended Task.	Displacement	Retrieval Questions based key misconceptions from LP3

PRT Task 1

PRT Task 2

Resources to support learning:
Resource booklet, Knowledge organiser, BBC GCSE Bitesize, Free GCSE Science videos on YOUTUBE. COGNITO Science

FFET Award Challenge for this Learning Programme:
LP3 Year 10 Science: Take part in an extra curricular STEM challenge