

Year 12 Chemistry Teacher 1

Learning Programme 5

The LORIC skill focus for this LP is: COMMUNICATION.

The Moral Virtues focus for this LP are: COURAGE and HUMILITY.

Courage - Acting with bravery and overcoming fears.

Humility - Having a modest view of oneself.

What will I be learning about in this Learning Programme?

How to synthesis organic compounds using various synthetic routes.

Where have I seen this learning before?

You have learnt about alkanes, alkenes, alcohols and organic reactions in LP3 and 4.

What could I use it for?

Multi step synthesis of organic compounds in Yr13.

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 LP5.1, I will know:	12/05/25 - (WK 1)	Key Vocabulary	Homework
how to list and describe the techniques and procedures for use of Quick fit apparatus including for distillation and heating under reflux.		Quick fit apparatus	PPQ on techniques and procedures
In LP5.2, I will know:	19/05/25 - (WK 2)	Key Vocabulary	Homework
how to describe preparation and purification of an organic liquid PAG; how to describe an organic molecule containing several functional groups and make a prediction of properties and reactions.		Synthetic routes	Revision quiz on functional groups
LP5 RLW, I will:	02/06/25 - (WK 1)		Revision
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.			
In LP5.3, I will know:	09/05/25 - (WK 2)	Key Vocabulary	Homework
how to complete the PAG assessment for synthetic routes		Carboxylic Acids	Synthetic Routes Task
Extended Task.			
In LP5.4, I will know:	16/06/25 - (WK 1)	Key Vocabulary	Homework
how to complete my end of year assessment; how to review my end of year assessment.			Revision
In LP5.5, I will know:	23/06/25 - (WK 2)	Key Vocabulary	Homework
how to describe the experimental evidence for a delocalised, rather than Kekulé, model for benzene in terms of bond lengths, enthalpy change of hydrogenation and resistance to reaction; how to describe the electrophilic substitution of aromatic compounds.		Benzene	Practice questions on Benzene
In LP5.6, I will know:	30/06/25 - (WK 1)	Key Vocabulary	Homework
how to interpret unfamiliar electrophilic substitution reactions of aromatic compounds, including prediction of mechanisms; how to describe the relative ease of electrophilic substitution of phenol compared with benzene, in terms of electron pair donation to the π -system from an oxygen p-orbital in phenol.		Aromatic	Practice questions on aromatic compounds
Extended Task.			
In LP5.7, I will know:	07/06/25 - (WK 2)	Key Vocabulary	Homework
how to describe the mechanism for nucleophilic addition reactions of aldehydes and ketones with NaBH ₄ and HCN; how to use Tollen's reagent to distinguish between aldehydes and ketones, explained in terms of the oxidation of aldehydes to carboxylic acids with reduction of silver ions to silver.		Carbonyl compounds	PPQ on aromatic compounds
Resources to support learning:			
MaChem guy videos, knockhardy ppts, Revision resources on TEAMS			
FFET Award Challenge for this Learning Programme:			
Make a revision resource for my yr12 learning.			

PRT Task 1

PRT Task 2