The Ellesmere Port C of E College

Part of the Frank Field Education Trust

# Year 11 GCSE Chemistry
# 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?**
Chemical reactions of organic compounds, including different ways chemical formula and reactions can be represented. The role of polymers in everyday life.

**Where have I seen this learning before?**
Year 8 using materials unit. Year 10 organic chemistry. Structure of DNA from biology.

**What could I use it for?**
Organic chemistry forms a large part of the A level chemistry course which then leads on to degree level study. This can lead into careers in the petrochemical, manufacturing and chemical synthesis industries.

**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 |
|---|---|---|
| how to describe reactions between alkenes and hydrogen, water (steam), or a halogen;<br>how to draw the structural and displayed formulae for the first four primary alcohols;<br>how to describe the reactions of alcohols using word equations. | Alcohols | Complete task on Sparx Science. |
| **In LP2.2, I will know: 02/11/26 - (WK 1)** | **Key Vocabulary** | **Homework** |
| how to predict the structure for primary alcohols when the number of carbons are given;<br>how to write balanced symbol equations for alcohol reactions;<br>the reactions of carboxylic acids with metal carbonates and with alcohols;<br>how to make an ester. | Carboxylic Acid | Complete task on Sparx Science. |
| **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. | | Complete task on Sparx Science. |
| **In LP2.3, I will know: 16/11/26 - (WK 1)** | **Key Vocabulary** | **Homework** |
| how to explain the processes of addition and condensation polymerisation in detail including balanced equations;<br>how to explain the effect of conditions and reactants on the polymer formed;<br>review and improve my learning through formative assessment and PRT.<br><br>Extended Task. | Polymerisation | Complete task on Sparx Science. |
| **In LP2.4, I will know: 23/11/26 - (WK 2)** | **Key Vocabulary** | **Homework** |
| how to compare the structures of starch and cellulose and link to their functions;<br>how amino acids form proteins;<br>the main structure of DNA;<br>Review and improve my learning through Formative Assessment and PRT. | Natural Polymers | Complete task on Sparx Science. |
| **In LP2.5, I will know: 30/11/26 - (WK 1)** | **Key Vocabulary** | **Homework** |
| how to interpret a chromatogram to identify unknown substances;<br>calculate Rf values from given data;<br>how to complete an assessment in science to review my progress. | Chromatography | Complete task on Sparx Science. |
| **In LP2.6, I will know: 07/12/26 - (WK 2)** | **Key Vocabulary** | **Homework** |
| the tests for the common gases and tests and observations for negative ions;<br>how to identify unknown compounds using a series of ions tests.<br><br>Extended Task. | Ions | Complete task on Sparx Science. |
| **In LP2.7, I will know: 14/12/26 - (WK 1)** | **Key Vocabulary** | **Homework** |
| how to describe the main processes of flame emission spectroscopy and interpret results from flame emission spectroscopy when data is given;<br>review my attainment in assessments and close gaps in my learning. | Spectroscopy | Complete task on Sparx Science. |

PRT Task 1

PRT Task 2

**Resources to support learning:**
EPC Knowledge Organiser, Synergy, Youtube, BBC Bitesize.

**FFET Award Challenge for this Learning Programme:**
Complete a practice paper independently.