Birches Head Academy

Part of the Frank Field Education Trust

Year 11 Chemistry
Learning Programme 3

Reading texts that pupils will study during the learning programme

Loric for LP3 is Resilience

The values we are learning about are respect and justice

Respect - a feeling of deep admiration for someone or something elicited by their abilities, qualities or achievements
Justice - fair behaviour or treatment

wk1: The early atmosphere, wk3: greenhouse effect , wk5: using resources

What will I be learning about in this Learning Programme?
This LP is an important part of the Chemistry GCSE so following this LP closely is imperative, The Earth's Atmosphere and using resources are two important topics so a good understanding of them is important.

Where have I seen this learning before?
This LP develops knowledge of the atmosphere and using resources which have previously been studied in in year 7 and in year 8.

What could I use it for?
Those wishing to go on and study science beyond GCSE will greatly benefit from this LP, careers working in engineering and environmental sciences are just some of the roles which use this learning.

In LP3.1, I will know : 06/01/2025 - (WK 2) how to prepare for mock exams; how to prepare for mock exams.	**Behaviour to support the values: STEPS/SLANT** I will show respect by actively listening to others	**Homework** Homework tasks are located in the Knowledge Organisers
In LP3.2, I will know : 13/01/2025 - (WK 1) how to interpret evidence and evaluate different theories about the Earths early atmosphere; the main changes in the atmosphere and the likely causes of these changes.	**Behaviour to support the values: STEPS/SLANT** I will show justice by speaking up when something is not right	**Homework** Homework tasks are located in the Knowledge Organisers
In LP3.3, I will know : 20/01/2025 - (WK 2) how the greenhouse effect operates; the problems caused by increased amounts of pollutants in the air. Extended Task	**Behaviour to support the values: STEPS/SLANT** I will show respect by being punctual and not wasting the time of others	**Homework** Homework tasks are located in the Knowledge Organisers
PRT Task 1 **In LP3.4, I will know : 27/01/2025 - (WK 1)** how to distinguish between finite and renewable resources, given appropriate information; the differences between potable water and pure water.	**Behaviour to support the values: STEPS/SLANT** I will show justice by being inclusive and accepting everyone regardless of our differences	**Homework** Homework tasks are located in the Knowledge Organisers
In LP3.5, I will know : 03/02/2025 - (WK 2) how waste water is made safe to release into the environment. (RP - water purification); how to evaluate alternative biological methods of metal extraction, given appropriate information.	**Behaviour to support the values: STEPS/SLANT** I will show respect by taking care of the school property	**Homework** Homework tasks are located in the Knowledge Organisers
In LP3.6, I will know : 10/02/2025 - (WK 1) how to carry out simple comparative life cycle assessments for shopping bags made with plastic and paper; how to evaluate ways of reducing the use of limited supplies of metal ores, given appropriate information. Extended Task	**Behaviour to support the values: STEPS/SLANT** I will show justice by supporting others of seeking help when required	**Homework** Homework tasks are located in the Knowledge Organisers
LP3 RLW, I will: 24/02/2025 - (WK 2) review my learning, recalling and applying key knowledge, focus on closing any gaps in my knowledge and prepare effectively for the upcoming assessments.	**Behaviour to support the values: STEPS/SLANT** I will show respect by actively listening to others	**Homework** Homework tasks are located in the Knowledge Organisers
PRT Task 2 **In LP3.7, I will know : 03/03/2025 - (WK 1)** how experimental results can be used to show the conditions necessary for rusting (MS); why metals are alloyed.	**Behaviour to support the values: STEPS/SLANT** I will show respect by recognising and celebrating the achievements of myself and others	**Homework** Homework tasks are located in the Knowledge Organisers

Resources to support learning:

Kerboodle, Bitesize, GCSEPod

FFET Award Challenge for this Learning Programme:

Year 11 Challenge: Organic Chemistry
Challenge Title: "The Molecule of the Future!"
Design a new organic molecule that solves a global problem, such as reducing pollution, curing a disease, or creating sustainable materials.
Task:
Design and name your molecule, explaining how its structure allows it to perform its function.
What to Create:
A diagram showing the molecular structure, annotated with explanations of functional groups and bonding.
A scientific pitch (200–300 words) explaining how the molecule could be produced and its real-world application.
Judging Criteria:
Originality, scientific accuracy, and the clarity of your diagram and explanation.