

## Year 11 Science 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

Wk1 Crude oil Wk3 Earth's Atmosphere Wk5  
Waves

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

What will I be learning about in this Learning Programme?

This LP is a major part of the combined GCSE so following this LP closely is imperative, organic chemistry a large part of the chemistry course so a good understanding of the topic is important. The waves section of the LP involves lots of calculations

Where have I seen this learning before?

This LP develops knowledge of organic chemistry, chemical analysis and waves which has 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, building and all of the healthcare field are just some of the roles which use this learning.

In LP3.1, I will know :	06/01/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
what crude oil is made up of; how crude oil is separated in fractions; how to test for the products of complete combustion of a hydrocarbon.		I will show respect by actively listening to others	Homework tasks are located in the Knowledge Organisers
In LP3.2, I will know :	13/01/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
what alkenes are and how they differ from alkanes; how to identify useful mixtures called formulations; how paper chromatography separates mixtures.		I will show justice by speaking up when something is not right	Homework tasks are located in the Knowledge Organisers
In LP3.3, I will know :	20/01/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
how to test for hydrogen, oxygen, carbon dioxide and chlorine; different theories about the Earth's early atmosphere; the main changes in the atmosphere over time. Extended Task		I will show respect by being punctual and not wasting the time of others	Homework tasks are located in the Knowledge Organisers
In LP3.4, I will know :	27/01/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
the greenhouse effect operates; how emissions of carbon dioxide and methane can be reduced; the problems caused by increased amounts of pollutants in the air.		I will show justice by being inclusive and accepting everyone regardless of our differences	Homework tasks are located in the Knowledge Organisers
In LP3.5, I will know :	03/02/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
the difference between transverse and longitudinal; what is meant by amplitude; how the behavior of waves can be used to explain reflection and refraction.		I will show respect by taking care of the school property	Homework tasks are located in the Knowledge Organisers
In LP3.6, I will know :	10/02/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
what sound waves are; how to calculate the frequency or wavelength of electromagnetic waves; why some types of EM radiation are hazardous. Extended Task		I will show justice by supporting others of seeking help when required	Homework tasks are located in the Knowledge Organisers
LP3 RLW, I will:	24/02/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
review my learning, recalling and applying key knowledge, focus on closing any gaps in my knowledge and prepare effectively for the upcoming assessments.		I will show respect by actively listening to others	Homework tasks are located in the Knowledge Organisers
In LP3.7, I will know :	03/03/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
what ionising radiation is; what absorbs x-rays when they pass through the body.		I will show respect by recognising and celebrating the achievements of myself and others	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.			

PRT Task 1

PRT Task 2