

Year 10 Physics

Learning Programme 5

Reading texts that pupils will study during the learning programme

Loric for LP5 is communication

The value we are learning about is **compassion**

Compassion - Sympathy and concern for the suffering or misfortunes of other

What will I be learning about in this Learning Programme?

Students are learning about Atomic Structure, and the historical narrative of Atomic Discovery. Students will learn about the three different types of Ionizing Radiation. They will learn about associated hazards and uses of radioactive Material. Students will learn about Atomic Half Life, and interaction at

Where have I seen this learning before?

Students have previously learnt about Atomic Structure. Students should be able to draw the structure of an atom, and label protons, neutrons and electrons.

What could I use it for?

Key concepts identified in this LP will be required for higher education science as well as in a range of careers which involve physics.

Week 1 - History of the Atom; Week 3 - Ionizing Radiation; Week 5 - Radioactive Resources in Medicine.

In LP5.1, I will know:	20/05/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to explain atomic structure; how to draw the structure of different atoms and calculate the nucleons; the history of atomic structure.			Proton, Neutron, Electron, Atomic Number, Mass, Isotope.	Knowledge organiser tasks
In LP5.2, I will know:	03/06/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to analyse the results of the alpha scattering experiment; how to explain alpha, beta and gamma radiation; the differences between ionising radiation.			Alpha, Beta, Gamma, Ionisation.	Knowledge organiser tasks
In LP5.3, I will know:	10/06/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
the penetrating power of ionising radiation; the concept of radioactive half life; how to plot and analyse a decay curve. Extended Task			Penetrating, Air, Aluminium, Lead	Knowledge organiser tasks
In LP5.4, I will know:	17/06/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
the hazards and uses of alpha radiation; the hazards and uses of beta radiation; the hazards and uses of gamma radiation.			Alpha, Beta, Gamma.	Knowledge organiser tasks
In LP5.5, I will know:	24/06/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
the diverse application of radioactive sources in medicine; how to explain background radiation; the steps necessary to prevent radioactive contamination.			Scanning, MRI, Cancer, Hazmat.	Knowledge organiser tasks
In LP5.6, I will know:	01/07/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to explain nuclear fission; how to explain nuclear fusion. Extended Task			Fission, Nuclear Reactors, Uranium.	Knowledge organiser tasks
In LP5.7, I will know:	08/07/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to revise all key concepts for summative assessment.			Fission, Nuclear Reactors, Uranium.	Knowledge organiser tasks
In LP5.8, I will know:	15/07/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
experience week.				
Resource to support learning: Kerboodle, BBC Bitesize, GCSE Pod.				
FFET Award Challenge for this Learning Programme: Attend an extra-curricular club, represent the academy at an event, attend an enrichment day, receive a subject praise postcard, attend a day trip, attend a head of year breakfast or afternoon tea, achieve 100 positive points on class charts, receive a letter of commendation from SLT, be invited to a wonderful Wednesday, receive a principals letter or be invited to a principals lunch, attend a residential trip, achieve the Duke of Edinburgh bronze award.				

PRT Task 1

PRT Task 2