

Year 9 Science

Learning Programme 2

The LORIC skill focus for this LP is: ORGANISATION.

The Moral Values foci for this LP are: COMPASSION and HONESTY.

Compassion - sympathy and concern for the suffering or misfortunes of others
Honesty - being truthful and refraining from cheating or lying

What will I be learning about in this Learning Programme?

Students will learn how cells are structured, how specialised cells carry out different functions, and how substances move in and out of cells. They will also learn about the structure of atoms, the properties of subatomic particles, and how atomic structure relates to the periodic table.

Where have I seen this learning before?

At KS2, students will have learned that living things are made of cells, identified the basic functions of cells in animals and plants, and explored how living things grow and reproduce. They will also have learned that all materials are made of tiny particles, grouped materials based on their properties, and been introduced to simple ideas about the structure of matter.

What could I use it for?

Understanding cells is important for careers in medicine, nursing, biotechnology, and healthcare, while knowledge of atomic structure is essential for chemistry, engineering, materials science, and pharmacy. These topics also help students develop analytical, problem-solving, and practical investigation skills that are valuable in many professions.

Literacy Non-Negotiables:

- 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
- Vocabulary to be taught using the Frayer model

In LP2.1, I will know:	19/10/26 - (WK 2)	Frayer Model Words	Homework
IGNITION - how to use a microscope to observe cells. how to draw and label plant and animal cells. the difference between prokaryotic and eukaryotic cells.		Organelle	Sparx Science
In LP2.2, I will know:	02/11/26 - (WK 1)	Frayer Model Words	Homework
how animal cells are specialised to perform their function. how plant cells are specialised to perform their function. how to complete an investigation into observing plant tissue (RP).		Differentiation	Sparx Science
LP2 RLW, I will:	09/11/26 - (WK 2)	Frayer Model Words	Homework
review my learning, recalling and applying key knowledge, and focus on closing any gaps in my knowledge.		Chromosome	Sparx Science
In LP2.3, I will know:	16/11/26 - (WK 1)	Frayer Model Words	Homework
how to calculate magnification. how to identify atoms, elements and compounds. how to label the structure of an atom. Extended Task.		Resolution	Sparx Science
In LP2.4, I will know:	23/11/26 - (WK 2)	Frayer Model Words	Homework
how to complete a knowledge check. how to complete a PRT. how to define what is meant by an isotope.		Isotope	Sparx Science
In LP2.5, I will know:	30/11/26 - (WK 1)	Frayer Model Words	Homework
how to draw electron configurations. how to explain the development of the periodic table. how to describe the difference between metals and non-metals.		Electron	Sparx Science
In LP2.6, I will know:	07/12/26 - (WK 2)	Frayer Model Words	Homework
how to describe the properties of the alkali metals. how to describe and explain the properties of group 7 elements. how to describe and explain the properties of group 0 elements. Extended Task.		Halogens	Sparx Science
In LP2.7, I will know:	14/12/26 - (WK 1)	Frayer Model Words	Homework
how to revise for knowledge check. how to complete a knowledge check. how to complete a PRT.		Inert	Sparx Science
Resources to support learning:	SPARX Science		
FFET Award Challenge for this Learning Programme:	Design a poster comparing the alkali metals with the halogens.		

PRT Task 1

PRT Task 2