

## Year 10 Science

### 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 will be learning about genetics, in inheritance & evolution, followed by learning about the Periodic table and chemical quantities.

**Where have I seen this learning before?**

Pupils have explored variation, in inheritance and the periodic table in KS3.

**What could I use it for?**

Variation, genetics and chemical calculations are all built upon in higher education science courses. This knowledge is also useful for someone pursuing a career in medicine, scientific research and chemical engineering.

In LP5.1, I will know:	20/05/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how to describe genes and what a genome is; how to interpret and construct punnett square diagrams; how sex is inherited.				Knowledge organiser tasks
In LP5.2, I will know:	03/06/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
why identical twins are not exactly the same in every way; how evolution occurs via natural selection; the role of isolation in evolution.				Knowledge organiser tasks
In LP5.3, I will know:	10/06/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
how fossils can provide evidence for evolution; the basic principles of classification; how selective breeding works, leading to genetic engineering including its benefits and risks Extended Task				Knowledge organiser tasks
In LP5.4, I will know:	17/06/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how the periodic table was developed over time; how metals and non-metals differ, including the electronic structures and their positions in the periodic table; the physical and chemical properties of group 1 elements.				Knowledge organiser tasks
In LP5.5, I will know:	24/06/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
the physical and chemical properties of group 7 elements; the definition of element and compound; how to describe what happens to an atom in a chemical reaction.				Knowledge organiser tasks
In LP5.6, I will know:	01/07/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
how to calculate the relative atomic mass of an element and the relative formula mass of a compound; how to calculate the amount of substance in moles, given the mass of a substance; what balanced symbol equations tell you about a chemical reaction. Extended Task				Knowledge organiser tasks
In LP5.7, I will know:	08/07/24 - (WK 1)	PR Focus	Key Vocabulary	Homework
why a limiting quantity of a reactant affects the amount of product it is possible to obtain; that the concentration of solutions can be expressed in grams per dm <sup>3</sup> ; how to calculate the concentration using mass and volume.				Knowledge organiser tasks
In LP5.8, I will know:	15/07/24 - (WK 2)	PR Focus	Key Vocabulary	Homework
experience week.				Knowledge organiser tasks
Resources to support learning:				
Kerboodle, CGP Revision Guide, Knowledge Organiser.				
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