

# Year 8 Science

## Learning Programme 4

Reading texts that pupils will study during the learning programme

Loric for LP4 is Initiative

The values we are learning about are integrity and gratitude

Week 1: Heating and cooling, Week 3: Radiation, Week 5: Work

Integrity - Being honest and having strong moral principles

Gratitude- the quality of being thankful and showing appreciation

**What will I be learning about in this Learning Programme?**

Students will learn about Energy and Forces.

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

Students will have previously learnt about forces in Year 7 and Energy in KS4.

**What could I use it for?**

The content of this LP contains the foundation for Physics throughout KS3 and KS4.

In LP4.1, I will know :	10/03/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
the difference between energy and temperature; what the thermal energy of an object depends on; in terms of energy, why objects change temperature.		I will show integrity by expressing gratitude to others.	Homework tasks are located in the Knowledge Organisers
In LP4.2, I will know :	17/03/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
how energy is transferred by particles; how to sketch diagrams to show convection currents; how a thermal insulator can reduce energy transfer.		I will show gratitude by showing my appreciation when someone does something nice.	Homework tasks are located in the Knowledge Organisers
In LP4.3, I will know :	24/03/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
some sources of infrared radiation; how energy is transferred from the Sun to the Earth; the different insulation methods in terms of conduction, convection, and radiation. Extended Task		I will show integrity by taking responsibility for my actions whether they be good or bad.	Homework tasks are located in the Knowledge Organisers
In LP4.4, I will know :	31/03/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
what work is; what simple machines do; the work needed to move object different distances.		I will show gratitude by completing a random act of kindness.	Homework tasks are located in the Knowledge Organisers
In LP4.5, I will know :	21/04/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
the energy content of food; the energy values of food and fuels; the energy in foods and fuels with the energy needed for different activities.		I will show integrity by being reliable and trustworthy.	Homework tasks are located in the Knowledge Organisers
In LP4.6, I will know :	28/04/2025 - (WK 1)	Behaviour to support the values: STEPS/SLANT	Homework
the energy resources used to generate electricity; the advantages and disadvantages of different energy resources; how energy is transferred from an energy resource to an electrical device in the home. Extended Task		I will show gratitude by being respectful.	Homework tasks are located in the Knowledge Organisers
In LP4.7, I will know :	05/05/2025 - (WK 2)	Behaviour to support the values: STEPS/SLANT	Homework
what you pay for when you pay your electricity bill; how to calculate the cost for home energy usage; the energy usage and cost of running different home devices.		I will show integrity by showing patience and flexibility when obstacles get in the way.	Homework tasks are located in the Knowledge Organisers
Resources to support learning:			
Kerboodle, Activate books 1 and 2 and BBC Bitesize			
FFET Award Challenge for this Learning Programme:			
Create your own food chain that can be found in your garden. Label the producers and consumers.			

PRT Task 1

PRT Task 2