

Year 8 Science

Learning Programme 4

<p>The LORIC skill focus for this LP is: INITIATIVE. The Moral Values foci for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles. I will show integrity by taking responsibility for my actions. Gratitude - Feeling and expressing thanks. I will show gratitude by saying please and thank you.</p> <p>What will I be learning about in this Learning Programme? Students learn to compare the physical and chemical properties of metals and non-metals, including their appearance, conductivity, malleability, and reactivity. The topic also explores how metals react with oxygen, acids, and water, and introduces the idea of displacement reactions and the reactivity series. Students will also learn how to draw circuit diagrams, understand current and potential difference, and explore how series and parallel circuits behave.</p> <p>Where have I seen this learning before? At KS2 students learn about materials and their properties, including that metals are often shiny, strong, and good conductors, and that materials are chosen for uses based on these properties. They also build simple electrical circuits, learning how batteries, wires, bulbs, and switches work, and that metals conduct electricity.</p> <p>What could I use it for? Learning about metals and non-metals in addition to the reactivity series helps you understand how metals behave—why some corrode, how we extract them, and how reactions like displacement and combustion happen. This links to future study in chemistry, engineering, and materials science. Studying circuits helps you understand how electrical systems work in homes, phones, cars, and technology, linking to future paths in electrical engineering, computing, trades, and physics.</p>	<p>Literacy Non-Negotiables:</p> <ul style="list-style-type: none"> • 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
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In LP4.1, I will know:	09/03/26 - (WK 2)	Frayer Model Words	Homework
how to use molymods to explain the difference between atoms, elements, compounds and mixtures - IGNITION how to write word equations. how to describe the differences between metals and non-metals.		Molecule	Complete homework on Spax Science
In LP4.2, I will know:	16/03/26 - (WK 1)	Frayer Model Words	Homework
how to describe the difference between physical and chemical properties. how to describe what is meant by an oxidation reaction. how to investigate reactivity of different metals with dilute acids.		Oxidation	Complete homework on Spax Science
In LP4.3, I will know:	23/03/26 - (WK 2)	Frayer Model Words	Homework
how to state the correct salt formed from a reaction. how to explain the law of conservation of mass. how to investigate the law of conservation of mass with magnesium. Extended Task.		Salt	Complete homework on Spax Science
In LP4.4, I will know:	13/04/26 - (WK 1)	Frayer Model Words	Homework
how to state what the reactivity series is and what it shows. how to carry out displacement reactions. how to carry out and complete knowledge check and PRT.		Displacement	Complete homework on Spax Science
In LP4.5, I will know:	20/04/26 - (WK 2)	Frayer Model Words	Homework
how to identify and draw circuit symbols. how to draw and build series circuits. how to draw and build parallel circuits.		Current	Complete homework on Spax Science
In LP4.6, I will know:	27/04/26 - (WK 1)	Frayer Model Words	Homework
how current is varies in series and parallel circuits. how potential differences varies in series and parallel circuits. how use the formula $V=IR$ Extended Task.		Potential difference	Complete homework on Spax Science
In LP4.7, I will know:	04/05/26 - (WK 2)	Frayer Model Words	Homework
how to investigate Ohms Law. how to effectively revise for LP4 assessment. how to complete PRT from LP4 Assessment.		Resistance	Complete homework on Spax Science



Resources to support learning:
Spax Science, BBC Bitesize

FFET Award Challenge for this Learning Programme:
Research how the design of an electrical circuit within an appliance affect the performance of real-world electrical devices?