

## Year 13 Chemistry T2

### Learning Programme 4

<p>The LORIC skill focus for his LP is: INITIATIVE. The Moral Virtues focus for this LP are: INTEGRITY and GRATITUDE.</p> <p>Integrity - Having strong moral principles. Gratitude - Feeling and expressing thanks.</p> <p><b>What will I be learning about in this Learning Programme?</b> The application of oxidising and reducing agents, REDOX reactions and prediction of reactions involving electron transfer.</p> <p><b>Where have I seen this learning before?</b> REDOX reactions, electron transfer, oxidation states, ionic equations.</p> <p><b>What could I use it for?</b> During industrial processes that require reactions to be feasible versus cost. In medical and industrial applications. Degree level study.</p>	<p><b>Literacy:</b></p> <ul style="list-style-type: none"> <li>Capital letters must be used at the start of sentences and for the first letter of proper nouns</li> <li>Full stops must be used at the end of a sentence</li> <li>Question marks must be used at the end of a question</li> <li>Apostrophes should only be used for possession or omission</li> <li>Days of the week and months must be spelled correctly</li> <li>Key words must be spelled correctly</li> </ul>
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<b>In LP4.1, I will know:</b>	<b>10/03/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to construct REDOX equations and predict products of reactions; the techniques for carrying out REDOX titrations.		REDOX	PPQ on REDOX

<b>In LP4.2, I will know:</b>	<b>17/03/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to measure and calculate electrode potentials; how modern storage and fuel cells work.		Fuel cell	Questions on Fuel Cells

<b>In LP4.3, I will know:</b>	<b>24/03/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
the electron configuration of atoms and ions of the d-block elements of Period 4 (Sc–Zn), given the atomic number and charge; how to illustrate using at least two transition elements: (i) the existence of more than one oxidation state for each element in its compounds (ii) the formation of coloured ions (iii) the catalytic behaviour of the elements.		Transition elements	Practise Questions based on d block elements
Extended Task.			

<b>In LP4.4, I will know:</b>	<b>31/03/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to review my learning on module 2 atoms, ions and compounds; how to review my learning on module 2 electrons and bonding.			Revision

<b>In LP4.5, I will know:</b>	<b>21/04/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to review my learning on module 2 intermolecular forces; how to review my learning on module 3 and 4 rates of reaction.			Revision

<b>In LP4.6, I will know:</b>	<b>28/04/25 - (WK 1)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to review my learning on module 3 periodicity and reactivity; how to review my learning on module 3 enthalpy and equilibrium.			Revision
Extended Task.			

<b>In LP4.7, I will know:</b>	<b>05/05/25 - (WK 2)</b>	<b>Key Vocabulary</b>	<b>Homework</b>
how to review my learning on module 2 atoms, ions and compounds; how to review my learning on module 2 electrons and bonding.			Revision

<b>Resources to support learning:</b>
Knock hardy PPT's, Machedem guy on YouTube, Knowledge organiser.

<b>FFET Award Challenge for this Learning Programme:</b>
LP4 Year 13 Chemistry: Complete a practice paper independently as part of your revision.

PRT Task 1

PRT Task 2