

Year 10 Chemistry

Learning Programme 1

The LORIC skill focus for this LP is: LEADERSHIP The Moral Virtues focus for this LP are: COURAGE and HUMILITY. Courage - Acting with bravery and overcoming fears. I will show courage by answering a question in class even when I'm not 100% sure of the answer. Humility - Having a modest view of oneself. I will show humility by admitting mistakes and asking for help when needed. What will I be learning about in this Learning Programme? How our understanding of atomic theory has developed and how elements are organised in the periodic table. 'How our understanding of atomic theory has developed and how elements are organised in the periodic table. Where have I seen this learning before? You will have covered particles and atomic structure in KS3 as well as the structure of the periodic table. What could I use it for? You will use the atomic model to explain the bonding and structure in different substances in LP2 and 3 and you will use this learning in A level Chemistry as well as if you pursue a degree in Chemistry at university.	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
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In LP1.1, I will know:	01/09/26 - (WK 1)	Key Vocabulary	Homework
the definition of an element and the basic structure of an atom; what happens to the atoms during a chemical reaction and the conservation of mass; how to separate components in a range of mixtures.		Atom	SPARX science task
In LP1.2, I will know:	07/09/26 - (WK 2)	Key Vocabulary	Homework
how fractional distillation works; how paper chromatography works.		Nucleus	SPARX science task
In LP1.3, I will know:	14/09/26 - (WK 1)	Key Vocabulary	Homework
how the model of the atom has changed over time; what the atomic and mass number of an atom represent;		Proton	SPARX science task
Extended Task.			
In LP1.4, I will know:	21/09/26 - (WK 2)	Key Vocabulary	Homework
how to define an ion and an isotope with examples of each; the electronic structures of the first 20 elements on the periodic table; how the periodic table was developed over time.		Electron	SPARX science task
In LP1.5, I will know:	28/09/26 - (WK 1)	Key Vocabulary	Homework
how metals and non-metals differ. Why noble gases are unreactive; how to describe the properties of group 1 alkali metals.		Neutron	SPARX science task
In LP1.6, I will know:	05/10/26 - (WK 2)	Key Vocabulary	Homework
how to describe the properties of group 7 halogens; how to explain trends in reactivity in groups of the periodic table; the properties of the transition elements.		Atomic number	SPARX science task
Extended Task.			
In LP1.7, I will know:	12/10/26 - (WK 1)	Key Vocabulary	Homework
how to describe the properties of the three states of matter; how to interpret melting point data to evaluate the state of a substance.		Mass number	SPARX science task

Resources to support learning: Knowledge organiser, Topic Booklet, Oak Academy, Microsoft TEAMS and GCSE Bitesize
FEET Award Challenge for this Learning Programme: Create a 3D model of an atom of sodium.

