

Year 8 Overview 2023-24 – Chemistry

Units Studied & Learning Outcomes			Key Concepts & Assessment						
<p>Overview of Unit/No. lessons The Periodic Table: 9 lessons</p> <p><u>Lesson Sequence of Content:</u> Lesson 1-Identify atoms, elements, compounds and mixtures Lesson 2- Structure of the atom Lesson 3-Electron configuration Lesson 4-Mendeleev’s Periodic Table Lesson 5-Organisation of the Periodic Table Lesson 6 & 7-Groups of the Periodic Table Lesson 8-Quick quiz assessment Lesson 9-Long answer question</p> <table><tr><th>Prior</th><th>Current (Y8)</th><th>Next</th></tr><tr><td>N/A</td><td>Understand the arrangement of the periodic table and basic structure of the atom</td><td>Year 9 – Atomic structure (charge and mass) Group 1 properties Year 10-Isotope. Ion formation. Patterns in the periodic table. Year 11 – Trends in the period table, groups 1,7,0. Atomic structure and electronic configuration.</td></tr></table> <ul style="list-style-type: none">GW: Recall definitions of key terms, atom, element, compound and mixture.BI: Describe the arrangement of an atom.EW: Explain the organisation of the Periodic Table and how this links to reactivity of certain groups <p>○</p>			Prior	Current (Y8)	Next	N/A	Understand the arrangement of the periodic table and basic structure of the atom	Year 9 – Atomic structure (charge and mass) Group 1 properties Year 10-Isotope. Ion formation. Patterns in the periodic table. Year 11 – Trends in the period table, groups 1,7,0. Atomic structure and electronic configuration.	
Prior	Current (Y8)	Next							
N/A	Understand the arrangement of the periodic table and basic structure of the atom	Year 9 – Atomic structure (charge and mass) Group 1 properties Year 10-Isotope. Ion formation. Patterns in the periodic table. Year 11 – Trends in the period table, groups 1,7,0. Atomic structure and electronic configuration.							
<p>Overview of Unit/No. lessons Reactions of Metals: 11 lessons</p> <p><u>Lesson Sequence of Content:</u> Lesson 1-Properties of Metals Lesson 2-pH of Metal and Non-Metal Oxides Lesson 3-Metals and Water Lesson 4-Metals and Oxygen</p>									

Lesson 5 & 6-Metals and Acid HSW
 Lesson 7-Metal Carbonates and Acid
 Lesson 8-Metal Oxides and Acid
 Lesson 9-Displacement of Metals
 Lesson 10-Quick quiz assessment
 Lesson 11-Long answer question

Prior	Current (Y8)	Next
Year 6- Properties of materials	Describe the properties and reactions of Metals/Metal compounds with acids	Year 9 – Displacement and chemical equations of metals and acid reactions. Extracting metals. Year 11 – Reactions of metals (making salts)

- **GW:** State properties of metals and non-metals
- **BI:** Describe reactions of metals/metal compounds with acid
- **EW:** Explain the reactivity of metals in terms of displacement reactions

Overview of Unit/No. lessons

Types of Reactions: 10 lessons

Lesson Sequence of Content:

Lesson 1-Difference between a chemical and a physical change
 Lesson 2-Chemical Reactions
 Lesson 3-Complete and Incomplete Combustion
 Lesson 4-Fire Triangle
 Lesson 5-Thermal Decomposition
 Lesson 6 & 7-Conservation of Mass HSW
 Lesson 8-Exothermic and Endothermic Reactions
 Lesson 9-Quick quiz assessment
 Lesson 10-Long answer question

Prior	Current (Y8)	Next
N/A	Be able to describe different types of chemical and physical reactions. Know the law of conservation of mass.	Year 9 – Combustion. Year 10- Reversible reactions. Exothermic and endothermic reactions with interpretation of reaction profiles.

- **GW:** State the difference between chemical and physical changes

- | | |
|---|--|
| <ul style="list-style-type: none">• BI: Describe the reactants and products of combustion reactions• EW: Represent exothermic and endothermic reactions as energy level diagrams | |
| | |

○