



## Year 9 Chemistry Curriculum Map

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| <b>Overview</b>   | <p>Year 9 GCSE Chemistry starts with learning about the periodic table which provides chemists with a structured organisation of the known chemical elements from which they can make sense of their physical and chemical properties. The historical development of the periodic table and models of atomic structure provide good examples of how scientific ideas and explanations develop over time as new evidence emerges. The arrangement of elements in the modern periodic table can be explained in terms of atomic structure which provides evidence for the model of a nuclear atom with electrons in energy levels - this is the basis of further chemical reactivity to be studied later in the course.</p> |          |  |
| <b>Year 9</b>     | Spring 4  | Summer 1 | Summer 2   |
| <b>Topic</b>      | C1 Atomic Structure   |          | C2 Periodic Table  |
| <b>Knowledge</b>  | A simple model of the atom, symbols, relative atomic mass, electronic charge and isotopes.  |          | <p>The periodic table</p> <p>Properties of transition metals (chemistry only)</p>  |
| <b>Skills</b>     | <p>Write formulae and balanced chemical equations for the reactions in this specification.</p> <p>Safe use of a range of equipment to separate chemical mixtures.</p> <p>The historical context of atomic structure provides an opportunity for students to show an understanding of why and describe how scientific methods and theories develop over time.</p> <p>Recognise expressions in standard form.</p> <p>Use SI units and the prefix nano.</p> <p>Students should be able to represent the electronic structures of the first twenty elements of the periodic table in both forms.</p> <p>Visualise and represent 2D and 3D forms including two dimensional representations of 3D objects.</p>                  |          | <p>Explain how testing a prediction can support or refute a new scientific idea.</p> <p>Safe use and careful handling of gases, liquids and solids, including careful mixing of reagents under controlled conditions, using appropriate apparatus to explore chemical changes.</p> |
| <b>Assessment</b> | Formal exam covering C1 Atomic Structure.   |          |  |