



Subject: Chemistry

Lead Teacher: Mr R Wright

Year: 7

## Curriculum organisation

Students are taught in mixed groups of 30 for one hour per week. They are not grouped by ability.

Overview of Topics & Key Information					How will your child be learning?
Term	Unit(s) of Work	Key Enquiry Questions	Key Content/ Terminology	Skills developed	
Autumn Term	<ul style="list-style-type: none"> <li>What is Chemistry?</li> </ul>	<ul style="list-style-type: none"> <li>How do we work safely in the lab?</li> <li>How do you light and use a Bunsen burner safely?</li> <li>Where do you find equipment in the lab?</li> <li>How do you draw a heating curve for water?</li> </ul>	<ul style="list-style-type: none"> <li>Label the parts of a Bunsen burner.</li> <li>Name the apparatus used in the lab.</li> <li>Line graph.</li> <li>Independent variable.</li> <li>Dependent variable</li> </ul>	<ul style="list-style-type: none"> <li>Identify independent and dependent variables.</li> <li>Use appropriate techniques, apparatus and materials to carry out practical work safely.</li> </ul>	<ul style="list-style-type: none"> <li>Whole class discussion</li> <li>Pair work</li> <li>Practical activities</li> <li>Problem-solving tasks</li> <li>Watching short video clips</li> <li>Research tasks</li> </ul>
	<ul style="list-style-type: none"> <li>Acids and alkalis</li> </ul>	<ul style="list-style-type: none"> <li>What is an acid?</li> <li>What is an alkali?</li> <li>How do we measure acidity?</li> <li>What are the reactions of acids?</li> <li>How do we test for gases?</li> <li>What is an equation?</li> </ul>	<ul style="list-style-type: none"> <li>Acid</li> <li>Alkali</li> <li>Indicator</li> <li>pH</li> <li>Neutralisation</li> <li>Salt</li> <li>Hydrogen</li> <li>Carbon dioxide</li> </ul>	<ul style="list-style-type: none"> <li>Use appropriate techniques, apparatus and materials to carry out practical work safely.</li> <li>Make and record observations and measurements.</li> </ul>	
Spring Term	<ul style="list-style-type: none"> <li>Separation techniques</li> </ul>	<ul style="list-style-type: none"> <li>What is a mixture?</li> <li>How can you separate the components in a mixture?</li> </ul>	<ul style="list-style-type: none"> <li>Solvent, solute and solution</li> <li>Dissolving and filtering</li> <li>Evaporation</li> <li>Magnetism</li> <li>Chromatography</li> <li>Separating funnel</li> <li>Distillation</li> <li>Fractional distillation</li> </ul>	<ul style="list-style-type: none"> <li>Use appropriate techniques, apparatus and materials to carry out practical work safely.</li> <li>Select plan and carry out investigations to test predictions</li> </ul>	
Summer Term	<ul style="list-style-type: none"> <li>Particle theory</li> </ul>	<ul style="list-style-type: none"> <li>How are the particles arranged in solids, liquids and gases?</li> <li>What words describe changes in state?</li> </ul>	<ul style="list-style-type: none"> <li>Particle model</li> <li>Particle arrangement</li> <li>Energy of particles</li> <li>Changes of state</li> <li>State symbols</li> <li>Diffusion</li> <li>Metals</li> </ul>	<ul style="list-style-type: none"> <li>Make and record observations and measurements.</li> <li>Describe patterns in data</li> </ul>	
	<ul style="list-style-type: none"> <li>Periodic table</li> </ul>	<ul style="list-style-type: none"> <li>How are the elements arranged in the periodic table?</li> <li>What are the properties of elements in different groups of the periodic table?</li> </ul>	<ul style="list-style-type: none"> <li>Non-metals</li> <li>History of the periodic table</li> <li>Mendeleev</li> <li>Groups and periods</li> <li>Groups 1, 7 and 0</li> </ul>	<ul style="list-style-type: none"> <li>Research skills</li> <li>Use appropriate scientific vocabulary correctly</li> </ul>	

Equipment needed for lessons	How will learning and progress be assessed?
<ul style="list-style-type: none"> <li>• Standard school stationery</li> <li>• Exercise book</li> <li>• Calculator</li> </ul>	<ul style="list-style-type: none"> <li>• End of unit tests (subject knowledge focus)</li> <li>• Formal assessment week (May)</li> <li>• Peer and self-assessment</li> <li>• Homework tasks (often research or project based)</li> <li>• Retrieval practice activities</li> </ul>

Extension & Enrichment opportunities	What can you do to support your child?
<ul style="list-style-type: none"> <li>• STEM Club</li> <li>• Websites which can be used to extend knowledge and reading</li> <li>• <a href="https://chemstuff.co.uk/academic-work/year-7/">https://chemstuff.co.uk/academic-work/year-7/</a></li> <li>• <a href="https://www.bbc.co.uk/bitesize/subjects/znxytyrd">https://www.bbc.co.uk/bitesize/subjects/znxytyrd</a></li> <li>• <a href="https://www.footprints-science.co.uk/index.php?type=Periodic_table">https://www.footprints-science.co.uk/index.php?type=Periodic_table</a></li> <li>• <a href="https://edu.rsc.org/resources">https://edu.rsc.org/resources</a></li> </ul>	<ul style="list-style-type: none"> <li>• Take an active interest in their learning</li> </ul>

Inclusion	
In lessons	Subject specific
<ul style="list-style-type: none"> <li>• Teachers follow student passports to ensure that the needs of all students with SEND are met.</li> <li>• Work is enlarged to the necessary size for visually impaired students.</li> <li>• Teachers will ensure that classrooms are quiet learning environments where possible and will dim lights to support students with sensory needs.</li> <li>• Students have the use of laptop if they have a SEND need whereby use of a laptop supports them.</li> <li>• Hearing impaired students are supported through use a radio aid and teachers ensure that students can lip read at all times during lessons.</li> <li>• Dyslexic students are encouraged to use coloured overlays when they are required to read long passages.</li> <li>• Use of dyslexic friendly fonts and coloured backgrounds used in PowerPoints/resources.</li> <li>• Students with ADHD are given movement breaks, fidget toys and lessons are 'chunked' to aid concentration.</li> <li>• Students are seated according to their needs, students work with the SENDCo to decide upon this.</li> </ul>	<ul style="list-style-type: none"> <li>• For pupils with visual impairment, enlarged graph paper for plotting graphs during experiments</li> <li>• Physical impairment – where possible we amend practical equipment or provide a magnifying glass to view instruments</li> <li>• Hearing impaired – show videos with subtitles</li> <li>• Some laboratories have height-adjustable benches for wheelchair access</li> <li>• Cater for latex allergies by providing disposable gloves</li> <li>• Colour blindness</li> </ul>

**If you have any questions about this Learning Overview, please contact the named Teacher above.**