

Science Overview - Chemistry

Year 7

	Term 1	Term 2	Term 3
Topic	<ul style="list-style-type: none"> <li>· Solids, liquids, and gases</li> <li>· Solutions</li> <li>· Mixtures</li> </ul>	<ul style="list-style-type: none"> <li>· Acids and alkalis</li> <li>· Neutralisation</li> </ul>	<ul style="list-style-type: none"> <li>· The Earth's atmosphere</li> </ul>
Key Concept	<b>Materials and their properties</b>	<b>Chemical changes</b>	<b>Our Earth and it's Atmosphere</b>
Learning Objectives	<ul style="list-style-type: none"> <li>· State that different materials have different physical properties.</li> <li>· State that pure substances can be classified as a solid, liquid or gas.</li> <li>· Describe matter as tiny particles called atoms that are arranged in solids, liquids and gases.</li> <li>· State that some substances are soluble, and some are insoluble.</li> <li>· State that dissolving is a physical change that is reversible.</li> <li>· Describe how dissolving / filtering can be used to separate a soluble and insoluble solid</li> <li>· Describe the difference between a pure substance and a mixture.</li> <li>· Explain chromatography.</li> </ul>	<ul style="list-style-type: none"> <li>· State that acids and alkalis are solutions.</li> <li>· Describe properties of acids and alkalis.</li> <li>· State the hazard symbol for corrosive.</li> <li>· State that pH is a measure of acidity where the lower the pH the more acidic a solution, and the higher a pH the more alkaline a solution.</li> <li>· State that acids react with alkalis and this is called neutralisation.</li> </ul>	<ul style="list-style-type: none"> <li>· State that the atmosphere is a mixture of gases.</li> <li>· Describe the composition of the atmosphere.</li> </ul>
Scaffolding SEND	glossaries, targeted questions, knowledge organisers, recall quizzes	glossaries, targeted questions, knowledge organisers, recall quizzes	glossaries, targeted questions, knowledge organisers, recall quizzes
Key Vocabulary	melt, solidify, freeze, physical change, physical property, condense, evaporate, density, reversible, temperature, volume, diffusion, state of matter, filtrate, filter paper, filtration, insoluble,	acid, alkali, corrosive, indicator, litmus, measuring cylinder, neutral, pH paper, universal indicator, chemical change, corrosive, indicator, neutralisation	percentage, pie chart, formula, gas syringe, oxygen, rgon, atmosphere, carbon dioxide, molecule, nitrogen, unreactive.

	pure, residue, saturated solution, soluble, solute, solution, solvent, solvent front, suspension, chromatography		
Formative Assessment	Rewind grids	Rewind grids	Rewind grids
Summative Assessment	End of unit test	End of unit test	End of unit test
Careers	dietician, forensic scientist, geoscientist, hydro therapist, immunologist, lab technician, paramedic, urologist, work in trading standards – testing for impurities	botanist, conservationist, dietician, equine dentist, forensic scientist, geoscientist, hydro therapist, immunologist, lab technician, marine biologist, neuroscientist, paramedic, optician, urologist volcanologist	botanist, conservationist, lab technician, marine biologist, weather forecaster
Links	<p>To build on classification of everyday materials and states of matter.</p> <p>To prepare for particle model and atomic structure. In addition, preparation of salts and reactions of acids.</p>	<p>To build on physical changes in state.</p> <p>To prepare for acid reactions and neutralisation.</p>	<p>To build on knowing that oxygen is in the atmosphere.</p> <p>To prepare for human effect on the atmosphere.</p>