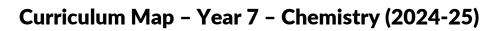


Curriculum Map - Year 7 - Chemistry (2024-25)

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Topic name	Term	Skills developed	Link to NC subject content	Prior knowledge	Next link in curriculum	
Introduction to			Working Scientifically	Prior Knowledge from	These skills are applied to	
Chemistry and	Autumn	 Estimating risks 	Scientific Attitudes	KS2	and developed across	
Acids and Alkalis	- Spring	Test hypotheses	pay attention to objectivity and concern for accuracy, precision, repeatability and reproducibility	Students should have some ideas on scientific	their entire WKGS science career	
			Collecting data	understand that scientific methods and theories develop as earlier explanations	investigations from KS2.	Links to GCSE:
		Presenting data	are modified to take account of new evidence and ideas, together with the importance of publishing results and peer review	This introduction topic aims to establish a solid baseline of skills across all of our students upon	Working scientifically section 3 of the AQA	
		 Draw conclusions 	evaluate risk	which to build	specification	
		COLICIUSIOLIS	Experimental skills and investigations	subsequent core knowledge and skills.	Y8 Spring: Chemical	
		Constructing explanations	ask questions and develop a line of enquiry based on observations of the real world, alongside prior knowledge and experience	Explain that some changes result in the formation of new materials, and that this kind of change is not usually	reactions Links to GCSE Topic 4 –	
			make predictions using scientific knowledge and understanding	reversible, including changes associated with burning and	Chemical Changes	
		select, plan and carry out the most appropriate types of scientific enquiries to test predictions, including identifying independent, dependent and control variables	the action of acid on bicarbonate of soda	Year 9: Reactions of metals and acids Neutralisation Acids and Alkalis		
		use appropriate techniques, apparatus, and materials during fieldwork and laboratory work, paying attention to health and safety		Year 11: • Strong and weak acids • Titrations		
			make and record observations and measurements using a range of methods for different investigations; and evaluate			







the reliability of methods and suggest	
possible improvements	
apply sampling techniques	
Measurement	
 understand and use SI units and IUPAC (International Union of Pure and Applied Chemistry) chemical nomenclature 	
use and derive simple equations and carry out appropriate calculations	
undertake basic data analysis including simple statistical techniques	
Acids and Alkalis	
• Acids have a pH below 7, neutral solutions have a pH of 7, alkalis have a pH above 7.	
Acids and alkalis can be corrosive or irritant and require safe handling	
The pH of a solution depends on the strength of the acid: strong acids have lower pH values than weak acids.	
Identifying the best indicator to distinguish between solutions of different pH, using data provided.	







	• Using data and observations to determine the pH of a solution and explain what this shows.	
	 Defining acids and alkalis in terms of neutralisation reactions. 	
	 Explaining how neutralisation reactions are used in a range of situations. Describe a method for how to make a neutral solution from an acid and alkali 	
	 Reactions of acids with alkalis to produce a salt plus water 	
	• Reactions of acids with metals to produce a salt plus hydrogen	



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Particles	Spring - Summer	Analyse patternsReview theories	The properties of the different states of matter (solid, liquid and gas) in terms of the particle model, including gas pressure.	Prior Knowledge from KS2 Students should be able to:	 Y8 Autumn: Elements, mixtures and compounds
	hange with temperature in motion and		Links to GCSE Topic 1 – Atomic Structure and the		
		 Test hypotheses 	spacing of particles.	are somes, riquids or gases	Periodic Table
		Draw conclusionsConstruct explanations	 The differences in arrangements, in motion and in closeness of particles explaining changes of state, shape and density, the anomaly of ice-water transition. Atoms and molecules as particles. 	Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)	Year 9: • Mixtures • Development of the atomic model Links to GCSE Topic 2 -
		Collect data	Diffusion in terms of the particle model		Structure and Bonding
		● Present data		Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	Year 9: • The three states of matter • State symbols