

Curriculum intent for Chemistry 2021-22

Year 7	Year 8	Year 9	Year 10	Year 11
CT1.1 Particle model		C1 Atoms, elements, and compounds C2 Structure and bonding		C8.1 Pure substances C7.6 Intermolecular forces C6.7 Collision Theory
	CT4.5 Combining elements	C1.1 Elements and compounds.	C3.1 Balanced equations C3.2 Relative formula mass	
CT2.1 Using metals and non-metals	CT4.1 Looking at the periodic table of elements	CT1.9 The development of the periodic table Transition elements	C4.2 Reactivity series C4.3 Extraction of metals	
	CT4.7 Exploring polymers			Polymerisation
CT1.6 Separating mixtures CT1.7 Exploring solutions CT1.8 Understanding distillation CT1 Chromatography		C1.3 Mixtures and their separation	C4.7 Soluble salts	C7.2 Fractional Distillation and petrochemicals C8.3 Chromatography Retention factor
CT2 Introduction to reactions	CT5 Understanding reactions		C4 Chemical changes C5 Energy changes C6 The rate and extent of chemical changes	

The KS3 and KS4 curriculum is broad and covers topics as outlined in the National curriculum. This is demonstrated through the department's routes document (learning journey) which follows the national curriculum and is engaging and relevant to pupils. Teaching in the sciences in key stage 3 builds on knowledge acquired in KS2 whilst KS4 continues with the process of building upon and deepening scientific knowledge and the understanding of ideas developed in earlier key stages. Learning is encouraged through a variety of teaching styles which is bespoke to individual classes and how they learn best.

The aim of the curriculum is to:

- Arouse learner's curiosity in chemistry and by extension the natural world enabling them to use scientific ideas to explain physical phenomena, fostering a deeper understanding and appreciation of chemistry to their everyday lives.
- Develop student scientific knowledge by building progression atop core ideas from KS2 throughout KS3 & KS4 via logical sequencing of the curriculum.
- Provide students the opportunities to work scientifically through experimentation, data analysis, making inferences and drawing conclusions in line with results.
- Develop students critical thinking skills enabling them to make logical and informed decisions based on information presented to them.
- Develop student understanding of the relationship between mathematical concepts and scientific ideas.
- Develop independent, resilient, and reflective learners through self-study, adequate challenge and personalised feedback.
- To equip learners with the skills and understanding they need to be scientifically literate citizens and to pursue the study of chemical sciences at higher levels should they so wish.