Fairfield High School for Girls

Chemistry – Year 9

Long-Term Plan 2024-2025

Calendar	Topic	Assessment	Sequencing and Coherence *concepts - themes - skills*	Literacy *reading - vocabulary - oracy - writing*
Autumn **Half Term 1 and 2**	**C1 Atomic Structure:** Atoms, Chemical equations, Structure of the atom, Ions and isotopes, electronic structure, History of the atom and Separation techniques	C1: Educake online quiz – The quizzes are instantly marked and feedback is provided for students. C1 End of Topic Test with GCSE exam style questions for both higher and foundation papers. End of topic tests are marked by the teacher and feedback is provided with modelled answers for all questions and personalised follow up exam questions focusing on areas of weakness.	**Disciplinary knowledge** headlines: • safe use of a range of equipment to separate chemical mixtures • why and how scientific methods and theories develop over time • use SI units and the prefix nano • explain how testing a prediction can support or refute a new scientific idea. <u>Link to knowledge from previous units:</u> • KS3 Elements and Compounds; Particle model of matter. <u>Link to knowledge in future units:</u> • GCSE Chemistry – constant references to these fundamental ideas in Bonding/structure model.	Glossaries are provided for each topic. Regular opportunities to read as a class are provided. Strategies such as choral reading and teacher modelling of difficult to pronounce words are used. Etymology of keywords are explored to make links between other words pupils are familiar with. The Frayer model is used to look at keywords such as element and compound. Construction of a timeline for the history of Atomic Structure. Writing model answers for 6 mark questions on separation technique methods.

Spring **Half Term 3 and 4**	**C2 The Periodic Table:** Development of the periodic table, Group1 alkali metals and trends, Group 7 halogens and trends, The Noble Gases.	C2: Educake online quiz – The quizzes are instantly marked and feedback is provided for students. C2 End of Topic Test with GCSE exam style questions for both higher and foundation papers. End of topic tests are marked by the teacher and feedback is provided with modelled answers for all questions and personalised follow up exam questions focusing on areas of weakness.	**Disciplinary knowledge** headlines: • safe use of a range of equipment to separate chemical mixtures • why and how scientific methods and theories develop over time • use SI units and the prefix nano • explain how testing a prediction can support or refute a new scientific idea. <u>Link to knowledge from previous units:</u> • KS3 Elements and Compounds; Particle model of matter. <u>Link to knowledge in future units:</u> • GCSE Chemistry – constant references to these fundamental ideas in Bonding/structure model.	Construction of a timeline for the history of the Periodic Table. Writing model answers for longer style questions on trends in the Periodic Table.
Summer **Half Term 5 and 6**	**C3: Structure and Bonding** States of matter, Atoms into ions, Ionic bonding, Covalent bonding, Simple molecules, Giant covalent structures, Fullerenes and graphene, Bonding in metals.	C3: Educake online quiz – The quizzes are instantly marked and feedback is provided for students. C3 End of Topic Test with GCSE exam style questions for both higher and foundation papers. End of topic tests are marked by the teacher and feedback is provided with modelled answers for all questions and personalised follow up exam questions focusing on areas of weakness.	**Disciplinary knowledge** headlines: • recognise substances as small molecules, polymers or giant structures from diagrams showing their bonding • recognise substances as metallic giant structures from diagrams showing their bonding <u>Link to knowledge from previous units:</u> • KS3 Particle model of matter <u>Link to knowledge in future units:</u> • GCSE Chemistry – running theme fundamental	Student talk tactics used to compare the structures of different substances.