KS3 Unit Overview – Big Picture

Subject/Year group/Unit Title	**Big picture questions**	**Pupils will focus particularly on the following statements from the programme of study:**
Chemistry **Year 8C** **Chemical Patterns** Lesson 1: Discovering Elements Lesson 2: Elements and symbols Lesson 3: Development of the Periodic Table Lesson 4: Periodic Table Metals and non-metals Lesson 5: Periodic Table Group 1 Lesson 6: Periodic Table Group 7 and 0 Lesson 7: Compounds, Elements and Formulae Lesson 8: Compounds, Elements and Formulae (2) Lesson 9: Recognising Chemical Change Lesson 10 : Types of Chemical Change Lesson 11: Heat in chemical reactions Lesson 12: Assessment Lesson Lesson 13: EOU Assessment	• **Development of the periodic table** • **Understanding the periodic table** • **Periodic trends** • **Chemical and physical changes** • **Writing word and simple symbol equations**	CPe1: the varying physical and chemical properties of different elements CPe2: the principles underpinning the Mendeleev Periodic Table CPe3: the Periodic Table: periods and groups; metals and non-metals CPe4: how patterns in reactions can be predicted with reference to the Periodic Table **PMPh5: the difference between chemical and physical changes*** CCh1: chemical reactions as the rearrangement of atoms CCh2: representing chemical reactions using formulae and using equations
Assessment tasks	**As FCJ educators, we will focus on the FCJ values by:**	**We will ensure students skills in reading, writing, communication and mathematics are enhanced by:**
• **Homework** • **Formative Badger Assessment** • **Summative end of unit test**	Excellence – set highest possible standards for all learners Companionship – teamwork when completing practical investigations, respect during class discussions	Mathematics – graph skills, time line, balancing equations, groups and periods Reading – within lessons themselves and literacy news reports Writing – extended Badger assessment Communication – discussions within lessons,

	Dignity – class discussions and Q&A, ensuring everyone is listened to and their views heard Justice - class discussions and Q&A, ensuring everyone is listened to and their views heard Hope – highlight progress in science and innovation to inspire learners Gentleness – classroom management in a firm but fair and gentle manner	
We are supporting progression from KS2 in this unit by:	**We are supporting progression to KS4 in this unit by:**	**Misconceptions and how they will be addressed**
Learners have an understanding of physical and chemical changes. They have been introduced to the particle theory.	Development of ideas for periodic table. The arrangement of atoms in the periodic table. Groups and periods. Properties of elements. Periodic trends. Representing substances using formulae. Representing chemical changes using equations.	Difference between chemical and physical changes. Atoms in formulae. Balancing equations.