

| Subject/Year group/Unit Title | Big picture questions | Pupils will focus particularly on the following statements from the programme of study: |
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| <p style="text-align: center;">Chemistry Year 9C Metals</p> <p>Lesson 1: Properties of metals Lesson 2: Properties of non-metals Lesson 3: Reactions of metals with acids Lesson 4: Reactions of metals with water Lesson 5: Rusting Lesson 6: Metals and oxygen Lesson 7 + 8: Metal Oxides Lesson 9: The reactivity series and metal extraction Lesson 10: Displacement Reactions Lesson 11: EOU Assessment</p> | <ul style="list-style-type: none"> • Use of the periodic table to identify metals and non-metals and to identify those with similar properties • Reactions of metals and non-metals with oxygen to produce different types of oxides linked to pollution from acid gases • Reactivity series of metals and the importance of the position of carbon linked with metal extraction • Reactions of metals with acids | <p>CPe5: The properties of metals and non-metals CPe3: the Periodic Table: periods and groups; metals and non-metals* CPe6: the chemical properties of metal and non-metal oxides with respect to acidity. CCh6: reactions of acids with metals to produce a salt, plus hydrogen CMA1: the order of metals and carbon in the reactivity series CMA2: the use of carbon in obtaining metals from metal oxides CCh3: combustion, thermal decomposition, oxidation and displacement reactions</p> |
| <p>Assessment tasks</p> | <p>As FCJ educators, we will focus on the FCJ values by:</p> | <p>We will ensure students skills in reading, writing, communication and mathematics are enhanced by:</p> |
| <ul style="list-style-type: none"> • Homework • Formative Badger Assessment • Summative end of unit test | <p>Excellence – set highest possible standards for all learners Companionship – teamwork when completing practical investigations, respect during class discussions 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</p> | <p>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,</p> |

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| | 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 acids and bases and neutralisation. They have been introduced to the idea of reactivity. | Reactivity series of metals and metal extraction. Acids and bases and neutralisation reactions. Representing substances using formulae. Representing chemical changes using equations. | Pupils do not understand that some elements can have properties associated with metals and non-metals Aluminium appears less reactive because it has an oxide layer |