

Key Stage 4 Curriculum Map 2020 - 2021

Year 11 GCSE Chemistry

Term 2

| Subject: Chemistry | Year: 11 | |
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| Focus/Topic | UAE Links | Home Learning / Reading |
| <ul style="list-style-type: none"> Atomic Structure Revision | Compare the states of matter of different materials they experience in the UAE Evaluate the use of radioactive isotopes for Nuclear Energy in the UAE. Consider if this is a good alternative to using fossil fuels. | Guided reading |
| <ul style="list-style-type: none"> Structure and Bonding Revision | Research the use of metals in the UAE and relate their properties to their use. Analyse the percentage of different gases found in the air within the UAE and determine their structure and bonding. | Guided reading |
| <ul style="list-style-type: none"> The Periodic Table Revision | Reflect on the use of common elements in the UAE and consider how their abundance could impact the UAE in the future. Compare and contrast the use of different metals in electrical cables for the UAE. Consider if copper is the best option. | Guided reading |
| <ul style="list-style-type: none"> Metals and Electrolysis Revision | This topic will be linked to the common uses of electrolysis in items such as batteries. Research the initiatives in place in the UAE for the recycling of different batteries such as from mobile phones and laptops. Students will | Guided reading |

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| | consider the advantages of different types of cells for batteries and their different real-life applications. | |
| • Quantitative Chemistry Revision | | Guided reading |
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| Half Term | | |
| • Chemical Analysis Revision | Students asked to apply their knowledge to a scenario based in the UAE where they must produce a sample of drinkable water when stranded on Jumeirah Beach. Students are challenged to explore the importance of inks and dyes for example within the UAE Flag. Research how chemical analysis can be used to support Forensic Investigations. | Guided reading |
| • Acids, Bases and Salts Revision | Students challenged to link the breakdown of statues/buildings made from carbonates in the UAE from acid rain. | Guided reading |
| • Organic Molecules Revision | Research the use of alternative fuels and renewable energies in the UAE. Explore the initiatives in place to reduce the carbon footprint of the UAE and to reach a more sustainable lifestyle. | Guided reading |
| • Rate and Extent of Rate Revision | Link to the industrial production of pharmaceuticals and why catalysts can be useful for industry e.g. Pharmax or Life Pharma. Students challenged to explore the use of fertilisers to promote plant growth in the UAE conditions (Biology link) | Guided reading |
| • Energy Changes Revision | Link to the use of cold packs for athletes competing in the Dubai Fitness Challenge | Guided reading |
| End of term 2 | | |