

## Year 13 Chemistry Key Stage 5 Curriculum Map 2021-22

Subject: Chemistry			Year: 13
Focus/Topic	UAE Links	HPL Links	Home Learning / Guided Reading
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Enthalpy Change</li> <li>- Born Haber Cycles</li> <li>- Amount of Substance AS Revision</li> </ul> </li> </ul>		<b>VAA: Empathetic Collaborative</b> <i>The ability to seek out opportunities to receive responses to your work; present your own views and ideas clearly and concisely; listen to the views of others; be willing and able to work in teams; take a variety of roles and be able to evaluate your own ideas and contributions.</i>  <b>ACP : Metathinking Strategy Planning</b> <i>The ability to approach new learning experiences by actively attempting to connect it to existing knowledge or context and hence determine an appropriate view and think about the work.</i>	Guided Reading
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- More Enthalpy Changes</li> <li>- Why Do Chemical Reactions Take Place?</li> <li>- The Rate of Chemical Reactions</li> </ul> </li> </ul>	Summarise chemical reactions in everyday life within the UAE and consider why increasing or decreasing their rate of reaction would be important		Guided Reading
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Electrode Potentials and Electrochemical Series</li> <li>- Predicting the Direction of Redox Reactions</li> <li>- The Rate Expression and Order of Reaction</li> </ul> </li> </ul>	Discuss the preventative measures taken to ensure the Burj Khalifa and other famous UAE landmarks do not corrode (redox reaction)		Guided Reading
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Electrochemical Cells</li> <li>- Electrochemical Cells Investigation</li> <li>- Planning a Rate Investigation</li> </ul> </li> </ul>	Explain how the Electrochemistry research being completed by Khalifa University (Abu Dhabi) could support the push for sustainable energy in Dubai		Guided Reading
<b>Half term</b>			
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Defining an Acid</li> <li>- The pH scale</li> <li>- The Arrhenius Equation</li> <li>- Determining the Rate Equation</li> </ul> </li> </ul>	Discuss any possible relationship between the fast food industry in Dubai and the sale of antacid medications	<b>VAA : Hardworking Practice</b> <i>The ability to train and prepare through repetition of the same processes in order to become more proficient.</i>  <b>Resilience</b> <i>The ability to overcome setbacks. Remain confident, focused, flexible and optimistic.</i>	Guided Reading
<ul style="list-style-type: none"> <li>- <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- The Rate Determining Step</li> <li>- Equilibrium constant</li> <li>- Weak Acids and Bases</li> </ul> </li> </ul>			Guided Reading

- Acid-Base Titrations			
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Choice of Indicators for Titrations</li> <li>- Planning an Acid-Base Titration</li> </ul> </li> </ul>	Research common diagnostic indicators that may be used if you were to visit a hospital here in the UAE	<b>ACP: Linking</b> Generalisation <i>The ability to see how what is happening in this instance could be extrapolated to similar situations.</i>	Guided Reading
<ul style="list-style-type: none"> <li>• <b>Physical Chemistry</b> <ul style="list-style-type: none"> <li>- Buffer Solutions</li> </ul> </li> <li>• <b>Practical Skills</b> <ul style="list-style-type: none"> <li>- Variables</li> <li>- Hypothesis</li> <li>- Methods</li> <li>- Risk assessments</li> <li>Interpreting data</li> </ul> </li> </ul>			Guided Reading
<ul style="list-style-type: none"> <li>• Inorganic Chemistry           <ul style="list-style-type: none"> <li>- Reactions of Period 3 elements</li> <li>- The Oxides of Elements in Period 3</li> </ul> </li> </ul>	Emirates utilise aluminium in the construction of their planes. Discuss the properties that make aluminium suitable for this.		Guided Reading

### Winter Break