

## YEAR 11 A/D/E – CHEMISTRY (Girls)

**WEEK 7 (11<sup>th</sup> October to 15<sup>th</sup> October)**

**Work Sent to the students through Zoom Learning Platform / Google classroom**

**Topic:**– SC12a: Dynamic equilibrium

SC15b: Factors affecting equilibrium

**Resources:** Text book, Worksheet, Board works power point

Date	Topic	
<p><b>11.10.20</b></p> <p>Sunday</p> <p>8<sup>th</sup> period</p> <p><b>Mode of Teaching:</b> Zoom</p>	<p><b>Learning Objective:</b></p> <p>Recall that chemical reactions are reversible, the use of the symbol <math>\rightleftharpoons</math> in equations and that the direction of some reversible reactions be altered by changing the reaction conditions.</p> <p>Explain what is meant by dynamic equilibrium.</p> <p><b>Learning Outcome:</b></p> <p>Define reversible reactions.</p> <p>Explain the significance <math>\rightleftharpoons</math> in equations.</p> <p>Cite <b>some</b> examples of reversible reactions.</p> <p>Define dynamic equilibrium.</p> <p>Suggest <b>some</b> examples of reactions in dynamic equilibrium.</p>	<p>Teacher uses power point presentation with interactive questions.</p> <p>Teacher uses textbook questions to assess the concept of reversible reactions.</p>
<p><b>12.10.20</b></p> <p>Monday</p> <p>4<sup>th</sup> period</p> <p><b>Mode of Teaching:</b> Zoom</p>	<p><b>Learning Objective:</b></p> <p>Recall the conditions for the Haber process as:</p> <p>a) Temperature 450 °C   b) pressure 200 atmospheres c) iron catalyst.</p> <p>Predict how the position of a dynamic equilibrium is affected by changes in: a) temperature   b) pressure   c) concentration.</p> <p><b>Learning Outcome:</b></p> <p>Analyse the conditions for the Haber process as:</p> <p>a) temperature 450 °C   b) pressure 200 atmospheres c) iron catalyst</p> <p>Explain how the position of a dynamic equilibrium is affected by changes in: a) temperature   b) pressure   c) concentration</p>	<p>Teacher uses power point presentation with interactive questions.</p> <p>Use video of Haber process.</p>
<p><b>14.10.20</b></p> <p>Wednesday</p> <p>8<sup>th</sup> period</p>	<p><b>Learning Objective:</b></p> <p>Explain how, in industrial reactions, including the Haber process, conditions used are related to:</p> <p>a) the availability and cost of raw materials and energy supplies</p> <p>b) the control of temperature, pressure and catalyst used produce an</p>	<p>Teacher uses power point presentation with interactive questions and extra questions from past</p>

<b>Mode of Teaching:</b> Zoom	acceptable yield in an acceptable time  <b>Learning Outcome:</b>  Analyze and evaluate the conditions for the Haber process as:  a temperature 450 °C  b pressure 200 atmospheres  c iron catalyst	papers.
<b>15.10.20</b>  Thursday  5 <sup>th</sup> and 6 <sup>th</sup> Period	<b>Science GL Exam</b>	Class Teacher will conduct the GL exam and monitor the students on Zoom

**HOMEWORK:** Complete the textbook questions SC15b:Factors affecting equilibrium- page 122 - 123

## **YEAR 11 B/C/F – CHEMISTRY (Boys)**

**WEEK 7 (11<sup>th</sup> October to 15<sup>th</sup> October)**

**Work Sent to the students through Zoom Learning Platform / Google classroom**

**Topic:**– SC12a: Dynamic Equilibrium  
SC15b: Factors affecting equilibrium

**Resources:** Text book, Worksheet, Board works power point

<b>Date</b>	<b>Topic</b>	
<b>11.10.20</b>  Sunday  1 <sup>st</sup> Period  <b>Mode of Teaching:</b> Zoom	<b>Learning Objective:</b>  Recall that chemical reactions are reversible, the use of the symbol $\rightleftharpoons$ in equations and that the direction of some reversible reactions be altered by changing the reaction conditions.  Explain what is meant by dynamic equilibrium.  <b>Learning Outcome:</b>  Define reversible reactions.  Explain the significance $\rightleftharpoons$ in equations.  Cite <b>some</b> examples of reversible reactions.  Define dynamic equilibrium.  Suggest <b>some</b> examples of reactions in dynamic equilibrium.	Teacher uses power point presentation with interactive questions.           Teacher uses textbook questions to assess the concept of reversible reactions.

<p><b>11.10.20</b> Sunday 2<sup>nd</sup> Period</p> <p><b>Mode of Teaching:</b> Zoom</p>	<p><b>Learning Objective:</b> Recall the conditions for the Haber process as: a) temperature 450 °C b) pressure 200 atmospheres c) iron catalyst.</p> <p><b>Learning Outcome:</b> Analyze the conditions for the Haber process as: a) temperature 450 °C b) pressure 200 atmospheres c) iron catalyst</p>	<p>Teacher uses power point presentation with interactive questions.</p> <p>Use video of Haber process.</p>
<p><b>12.10.20</b> Monday 3<sup>rd</sup> Period</p> <p><b>Mode of Teaching:</b> Zoom</p>	<p><b>Learning Objective:</b> Predict how the position of a dynamic equilibrium is affected by changes in: a) temperature b) pressure c) concentration.</p> <p><b>Learning Outcome:</b> Explain how the position of a dynamic equilibrium is affected by changes in: a) temperature b) pressure c) concentration</p>	<p>Teacher uses power point presentation with interactive questions</p>
<p><b>13.10.20</b> Tuesday 7<sup>th</sup> Period</p> <p><b>Mode of Teaching:</b> Zoom</p>	<p><b>Learning Objective:</b> Explain how, in industrial reactions, including the Haber process, conditions used are related to: a) the availability and cost of raw materials and energy supplies b) the control of temperature, pressure and catalyst used produce an acceptable yield in an acceptable time</p> <p><b>Learning Outcome:</b> Analyze and evaluate the conditions for the Haber process as: a temperature 450 °C b pressure 200 atmospheres c iron catalyst</p>	<p>Teacher uses power point presentation with interactive questions and extra questions from past papers.</p>
<p><b>15.10.20</b> Thursday 4<sup>th</sup> Period</p> <p><b>Mode of</b></p>	<p><b>Learning Objective:</b> To answer the questions, on Factors affecting Equilibrium, in the worksheet.</p> <p><b>Learning outcome:</b> Students will be able to reinforce the concepts learned in the previous lesson by answering the questions in the worksheet.</p>	<p>Worksheet assigned through GC.</p> <p>Instruction will be given in the GC to complete the worksheet.</p>

<b>Teaching:</b> GC		
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**HOMEWORK:** Complete the textbook questions SC15b:Factors affecting equilibrium- page 122 - 123

## **YEAR 11 G/H–CHEMISTRY (IGCSE)**

**WEEK 7 (11<sup>th</sup> Oct to 15th Oct)**

**Work Sent to the students through Google classroom/Zoom Learning Platform**

**Unit 3 – Topic:** Reversible reactions and Equilibria

**Resources:** Text book, Worksheet, IGCSE science free lesson video, power point.

<b>Date</b>	<b>Lesson</b>	<b>Topic</b>	<b>Mode of Teaching</b>	
11.10.2020  Sunday	1 11H  6 11G	<p><b>Lesson Objective:</b> know that some reactions are reversible and this is indicated by the symbol <math>\rightleftharpoons</math> in equations</p> <p><b>Learning Outcome:</b> Define reversible reactions. Discuss the significance <math>\rightleftharpoons</math> in equations. Cite <b>some</b> examples of reversible reactions.</p>	<b>Zoom</b>	Teacher uses power point presentation with interactive questions and extra questions from past papers.

12.10.2020 Monday	2 <b>11H</b> 5 <b>11G</b>	<p><b>Lesson Objective:</b> know that a reversible reaction can reach dynamic equilibrium in a sealed container</p> <p><b>Learning Outcome:</b> Define dynamic equilibrium. Suggest <b>some</b> examples of reactions in dynamic equilibrium. Discuss why dynamic equilibrium is possible only in a closed system/sealed container.</p>	<b>Zoom</b>	Teacher uses a Ppt presentation/video that contains interactive questions. Teacher uses textbook questions to assess the concept of reversible reactions.
13.10.2020 Tuesday	3 <b>11H</b> 1 <b>11G</b>	<p><b>Lesson Objective:</b> know that the characteristics of a reaction at dynamic equilibrium are:</p> <ul style="list-style-type: none"> <li>• the forward and reverse reactions occur at the same rate</li> <li>• the concentrations of reactants and products remain constant</li> </ul> <p><b>Learning Outcome:</b> State the characteristics of a reaction at dynamic equilibrium. Sketch a graph to show the characteristics of a reaction at dynamic equilibrium</p>	<b>Zoom</b>	Teacher uses a PowerPoint presentation/video to teach the concept of dynamic equilibrium.
	4 <b>11H</b> 2 <b>11G</b>	<p><b>Lesson Objective:</b> Understand why a catalyst does not affect the position of equilibrium in a reversible reaction</p> <p><b>Learning Outcome:</b> Discuss the effect of catalyst on the rate of a reaction at equilibrium. Give reasons why a catalyst does not affect the position of equilibrium in a reversible reaction.</p>	<b>Zoom</b>	Instruction will be given in the class to complete the textbook and worksheet questions.
15.10.2020 Thursday	5 <b>11H</b> 4 <b>11G</b>	<p><b>Lesson Objective:</b> Know the effect of changing either temperature or pressure on the position of equilibrium in a reversible reaction</p> <p><b>Learning Outcome:</b> Explain how the position of a dynamic equilibrium is affected by changes in: a temperature b pressure c concentration</p> <p><b>Predict</b> the change in conditions on the observation for reversible reaction</p>	<b>GC</b>	Teacher sends PowerPoint presentation that contains interactive questions

**HOMEWORK:** Complete the textbook questions.

