

## YEAR 12 G /D – CHEMISTRY

**WEEK 13 (22<sup>nd</sup> November to 26<sup>th</sup> November)**

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

**Topic:**– Group 7

**Resources:** Text book, Worksheet file, video, power point presentations.

<b>Date</b>	<b>Topic</b>	
<b>23.11.2020</b> Monday 3 <b>12D</b>	<b>Lesson Objective:</b> Understand reasons for the trends in melting and boiling temperatures, physical state at room temperature, and electronegativity for Group 7 elements	Teacher uses PowerPoint presentation that contains interactive questions
<b>24.11.2020</b> Tuesday 1 <b>12G</b>  <b>Mode of Teaching:</b> Zoom	<b>Learning Outcome:</b> Predict the trends within group: colour, physical state, melting & boiling points ,first ionisation energies, bond energies of halogen molecules, bond energies of hydrogen halides. Predict solubilities of halogens in water and in non aqueous solvents e.g. hexane.	
<b>24.11.2020</b> Tuesday 2 <b>12G</b>  7 <b>12D</b>  <b>Mode of Teaching:</b> Zoom	<b>Lesson Objective:</b> Understand reasons for the trend in reactivity of Group 7 elements down the group Understand the trend in reactivity of Group 7 elements in terms of the redox reactions of Cl <sub>2</sub> , Br <sub>2</sub> and I <sub>2</sub> with halide ions in aqueous solution, followed by the addition of an organic solvent  <b>Learning Outcome:</b> Reason out why fluorine is the most reactive element and why reactivity decreases as you go down in group 7. Define displacement reactions. Write equations for displacement reactions and the colour changes before and after the reaction.	Teacher uses PowerPoint presentation that contains interactive questions
<b>25.11.2020</b> Wednesday 2 <b>12G</b>	<b>Learning Objective:</b> To answer the questions, based on Group 7, in the worksheet.	Worksheet assigned through GC.
<b>26.11.2020</b> Thursday 7 <b>12D</b>  <b>Mode of Teaching:</b> GC	<b>Learning outcome:</b> Students will be able to reinforce the concepts learned in the previous lesson by answering the questions in the worksheet.	

**HOMEWORK:** Complete the textbook questions Q1 – Q2, on page 105

## YEAR 12 D/G– CHEMISTRY

**WEEK 13 (22<sup>nd</sup> Nov to 26<sup>th</sup> Nov)**

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

**Topic 4 – INORGANIC CHEMISTRY AND THE PERIODIC TABLE**

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

<b>Date</b>	<b>Topic</b>	
<p>24.11.20 Tuesday 8 <b>12D</b></p> <p>23.11.20 Monday 6 <b>12G</b></p> <p><b>Mode of Teaching –</b> Zoom</p>	<p><b>Learning Objective:</b> Reactions of the oxides of Group 2 elements with water and dilute acid, and their hydroxides with dilute acid</p> <p><b>Learning Outcome: students will be able to:</b> Know the reactions of the oxides of Group 2 elements with water and dilute acid, and their hydroxides with dilute acid</p> <p>Understand that metal oxides are Bases.</p> <p>Write the reactions and observations of calcium oxides with water and dilute acids –balanced equations for reactions</p>	<p>Teacher uses power point to show rules to recap basics of organic linking to GCSE level.</p>
<p>23.11.20 Monday 7- <b>12G</b></p> <p>25.11.20 Wednesday 7- <b>12D</b></p> <p><b>Mode of Teaching –</b> ZOOM</p>	<p><b>Learning Objective:</b> Trends in thermal stability of the nitrates and the carbonates of the elements in Groups 1 and 2 in terms of the size and charge of the cations involved.</p> <p><b>Learning Outcome: students will be able to:</b></p> <p>Understand reasons for the trends in thermal stability of the nitrates and the carbonates of the elements in Groups 1 and 2 in terms of the size and charge of the cations involved.</p> <p>Predict thermal stability of carbonates and nitrates related to charges and size of cations.</p> <p>Write <b>balanced</b> chemical equations for the reaction of calcium carbonate and lithium carbonate on heating.</p> <p>Identifies the trend as we go down a group based on polarization of cations.</p>	<p>Teacher uses power point presentation and videos to explain the concept of thermal stability of group 2 compounds.</p> <p>Teacher uses worksheet that contains interactive questions, to explain the trend.</p>
<p>25.11.20 Wednesday 8- <b>12D</b> <b>1-12G</b></p> <p><b>Mode of Teaching –</b> GC</p>	<p><b>Learning Objective:</b> Describe flame test and its chemistry.</p> <p><b>Learning Outcome: students will be able to:</b> Understand the formation of characteristic flame colours by Group 1 and 2 compounds in terms of electron transitions</p> <p><i>Students will be expected to know the flame colours for Groups 1 and 2 compounds.</i></p>	<p>Teacher uses power point presentation and videos to explain the concept of reactions</p> <p>Teacher uses worksheet that</p>

	Use flame colours to identify the metal ions $\text{Li}^+$ , $\text{Na}^+$ , $\text{K}^+$ (using blue glass), $\text{Ca}^{2+}$ , and $\text{Cu}^{2+}$ . Revise flame colorations with correct procedure.	contains interactive questions, to explain trend in reactivity.
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**HOMEWORK:** Solve exam style questions from text book.