### 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.

23.11.2020 Monday 3 12D Understand reasons for the trends in melting and boiling temperatures, physical state at room temperature, and electronegativity for Group 7 elements  24.11.2020 Tuesday 1 12G Mode of Teaching: Zoom  24.11.2020 Tuesday 2 12G Teaching: Teacher uses proverPoint presentation that contains interactive questions  Tuesday 1 12D Understand teernds within group: colour, physical state, melting & boiling points, first ionisation energies, bond energies of hydrogen halides. Predict solubilities of halogen molecules, bond energies of hydrogen halides. Predict solubilities of halogens in water and in non aqueous solvents e.g. hexane.  Teacher uses PowerPoint Preschation  Teacher uses PowerPoint Preschation that contains interactive questions  Teacher uses PowerPoint Preschation that contains interactive questions  Teacher uses PowerPoint Preschation that contains interactive questions of clay, Br <sub>2</sub> and I <sub>2</sub> with halide ions in aqueous solution, followed by the addition of an organic solvent  Mode of Teaching: Zoom  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.  Learning Objective: To answer the questions, based on Group 7, in the worksheet.  25.11.2020 Learning outcome: Students will be able to reinforce the concepts learned in the previous lesson by answering the	Date	Topic	
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7 12D	•	questions in the worksheet.	
Mode of			
Teaching:			
GC	_		

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

## 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

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

Revise flame colorations with correct procedure.    Revise flame colorations with correct procedure.	(usi	e flame colours to identify the metal ions Li <sup>+</sup> , Na <sup>+</sup> , K <sup>+</sup> ing blue glass), Ca <sup>2+</sup> , and Cu <sup>2+</sup> . vise 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.