YEAR 9 A to F – CHEMISTRY

WEEK 43 (20th June to 24th June)

Work Sent to the students through Group email/ Google classroom
Topic:– Looking at acids.
Resources: Text book, Worksheet and Powerpoint.

<table>
<tr><th>Date</th><th>Lesson</th><th>Topic</th><th>Mode of Teaching</th><th></th></tr>
<tr><td>20th June Sunday (girls)</td><td>6</td><td rowspan="2">Learning Objective :
1.Recall that as hydrogen ion concentration in a solution increases by a factor of 10, the pH of the solution decreases by 1.
2.Explain the terms dilute and concentrated, with respect to amount of substances in solution.
Success Criteria:
• Describe the relationship between hydrogen ion concentration and pH.
• What is the difference between dilute and concentrated solutions?</td><td rowspan="2">Zoom</td><td rowspan="2">Powerpoint presentation to explain the relationship between hydrogen ion concentration and pH.</td></tr>
<tr><td>21st June Monday (boys)</td><td>7</td></tr>
<tr><td>21st June Monday (girls)</td><td>5</td><td rowspan="2">Learning Objective :
1.Explain the terms weak and strong acids, with respect to the degree of dissociation into ions.
2.Explain how the pH and reactivity of an acid depend on the concentration and the strength of the acid.
Success Criteria:
• What is the difference between strong and weak acids?
• Explain how a concentrated solution of a week acid could have the same pH and similar reactions to a dilute solution of a strong acid.</td><td rowspan="2">Zoom</td><td rowspan="2">Powerpoint presentation that contains interactive questions on week and strong acids.</td></tr>
<tr><td>21st June Monday (boys)</td><td>8</td></tr>
<tr><td>21st June Monday (girls)</td><td>6</td><td rowspan="2">Learning Objective : Reinforce
To answer the questions in the worksheet.
Success Criteria:
• Students will be able to reinforce the concepts learned in the previous lesson by answering the questions in the worksheet.</td><td rowspan="2">GC</td><td rowspan="2">Worksheet SC8b</td></tr>
<tr><td>23rd June Wednesday – (boys)</td><td>1</td></tr>
</table>

YEAR 10 A/B/C/D/E/F–CHEMISTRY

WEEK 43 (20th June to 24th June)

Work Sent to the students through Google classroom
Topic: The changing atmosphere, The atmosphere today
Resources: Text book, Worksheet, power point &video

Date	Lesson	Topic	Mode of Teaching	
20/6/2021 Sunday	0 3	**Learning Objective:** 1. Explain how the amount of carbon dioxide in the atmosphere was decreased when carbon dioxide dissolved as the oceans formed. 2. Explain how the growth of primitive plants used carbon dioxide and released oxygen by photosynthesis and consequently the amount of oxygen in the atmosphere gradually increased. **Learning Outcome:** • Describe how the formation of the oceans influenced the composition of the atmosphere. • Explain how photosynthetic organisms (including plants) changed the composition of the atmosphere. • State the chemical test for oxygen.	**GM** **Zoom**	Teacher uses powerpoint presentation that contains Interactive questions.
21/6/2021 Monday 23/6/2021 Wednesday 24/6/2021 Thursday	1&2 3 & 2	**Learning Objective:** 1.Describe how various gases in the atmosphere, including carbon dioxide, methane and water vapour, absorb heat radiated from the Earth, subsequently releasing energy which keeps the Earth warm: this is known as the greenhouse effect. 2.Evaluate the evidence for human activity causing climate change, considering: a the correlation between the change in atmospheric carbon dioxide concentration, the consumption of fossil fuels and temperature change b the uncertainties caused by the location where these measurements are taken and historical accuracy. **Learning Outcome:** • Recall the names of significant greenhouse gases. • Describe the processes involved in the greenhouse effect. • Describe how human activity increases the concentration of greenhouse gases.	**GM** Zoom	Teacher uses Powerpoint presentation on climate change and green house effect
23/6/2021 Wednesday 24/6/2021 Thursday	4 3	**Learning Objective:** To answer the questions, in the worksheet. **Learning outcome:** Students will be able to reinforce the concepts learned by answering the questions in the worksheet.	**GC**	Instruction will be given in the Google classroom to complete the Worksheet.

Home work: Solve S1 and E1 questions (pg no.167)

YEAR 11 A/D/E – CHEMISTRY (Girls)

WEEK 43 (20th June to 24th June)

Work Sent to the students through Google classroom

Date	Topic	
20.06.21 Sunday 8th period & **21.06.21** Monday 4th period **Mode of Teaching**: Zoom	**Learning Objective:** To be able to use experimental data to calculate i) empirical formulae ii) molecular formulae including the use of *pV = nRT (Ideal Gas Equation)* for gases and volatile liquids **Learning outcome:** Work **few** examples of calculating empirical formulae and further to calculate molecular formulae. Use the equation Pv =nRT to calculate for gases and volatile liquids.	Worksheet on the use of the Ideal Gas Equation
23.06.21 Wednesday 8th period **Mode of Teaching:** GC	**Learning Objective:** To be able to calculate amounts of substances (in mol) in reactions involving mass and volume of gas **Learning outcome:** Use the fact that one mole of any gas occupies the same volume at room temperature and pressure – 24dm^3 Do **some** simple calculations to work out equation with mol = vol /24 dm^3	Worksheet assigned on GC
24.06.21 Thursday 5th & 6th period **Mode of Teaching:** GC	**Learning Objective:** To be able to calculate solution concentrations, in mol dm^{-3} and g dm^{-3}, including simple acid-base titrations. **Learning outcome:** Calculate concentration in moldm^{-3} – idea that moldm^{-3} = M, using data from simple acid-base titration	Worksheet assigned on GC

YEAR 11 B/C/F – CHEMISTRY (Boys)

WEEK 43 (20th June to 24th June)

Work Sent to the students through Google classroom

Date	Topic	
20.06.21 Sunday 1st & 2nd period **Mode of Teaching:** Zoom	**Learning Objective:** To be able to use experimental data to calculate i) empirical formulae ii) molecular formulae including the use of *pV = nRT (Ideal Gas Equation)* for gases and volatile liquids **Learning outcome:** Work **few** examples of calculating empirical formulae and further to calculate molecular formulae. Use the equation Pv =nRT to calculate for gases and volatile liquids.	Worksheet on the use of the Ideal Gas Equation
21.06.21 Monday 3rd Period **Mode of Teaching:** GC	**Learning Objective:** To be able to calculate amounts of substances (in mol) in reactions involving mass and volume of gas **Learning outcome:** Use the fact that one mole of any gas occupies the same volume at room temperature and pressure – 24dm^3 Do **some** simple calculations to work out equation with mol = vol /24 dm^3	Worksheet assigned on GC
22.06.21 Tuesday 7th Period & **24.06.21** Thursday 4th Period **Mode of Teaching:** GC	**Learning Objective:** To be able to calculate solution concentrations, in mol dm^{-3} and g dm^{-3}, including simple acid-base titrations. **Learning outcome:** Calculate concentration in $moldm^{-3}$ – idea that $moldm^{-3}$ = M, using data from simple acid-base titration	Worksheet assigned on GC

YEAR 11 G/H–CHEMISTRY (IGCSE)

WEEK 43 (20th June to 24th June)

Work Sent to the students through Google classroom

Date	Topic	
20.06.21 Sunday 6th period & **21.06.21** Monday 5th period **Mode of Teaching**: Zoom/ Google Meet	**Learning Objective:** To be able to use experimental data to calculate i) empirical formulae ii) molecular formulae including the use of *pV = nRT (Ideal Gas Equation)* for gases and volatile liquids **Learning outcome:** Work **few** examples of calculating empirical formulae and further to calculate molecular formulae. Use the equation Pv =nRT to calculate for gases and volatile liquids.	Worksheet on the use of the Ideal Gas Equation
22.06.2021 Tuesday 1st & 2nd period **Mode of Teaching**: GC	**Learning Objective:** To be able to calculate solution concentrations, in mol dm^{-3} and g dm^{-3}, including simple acid-base titrations. **Learning outcome:** Calculate concentration in $moldm^{-3}$ – idea that $moldm^{-3}$ = M, using data from simple acid-base titration	Worksheet assigned on GC
24.06.2021 Thursday 4th period **Mode of Teaching**: GC	**Learning Objective:** To be able to calculate amounts of substances (in mol) in reactions involving mass and volume of gas **Learning outcome:** Use the fact that one mole of any gas occupies the same volume at room temperature and pressure – $24dm^3$ Do **some** simple calculations to work out equation with mol = vol /24 dm^3	Worksheet assigned on GC

YEAR 12 D/G– CHEMISTRY

WEEK 43 (20th June to 24th June)

Topic- Equilibrium II
Work Sent to the students through Zoom Learning Platform / Google classroom
Resources: Text book, Worksheet, Video, Board works, power point

Date	Topic	
23.06.21 Wednesday 1, 2 - **12G** 7,8- **12D** **Mode of Teaching –** ZOOM	**Learning Objective:** Know the effect of changing temperature on the equilibrium constant (*K*c and *K*p), for both exothermic and endothermic reactions. Understand that the effect of temperature on the position of equilibrium is explained using a change in the value of the equilibrium constant. Understand that the value of the equilibrium constant is not affected by changes in concentration or pressure or by the addition of a catalyst. **Learning outcomes** Explain the effect of changing temperature on the value of *K*c for exothermic and endothermic reactions. Calculate *K*c for a reaction at different temperatures then link back to qualitative predictions using Le Chateliers Principle to explain the position of equilibrium. State that the value of *K*c is unaffected by changes in concentration or pressure or by the presence of a catalyst.	Teacher uses powerpoint presentations to explain the effect effect of changing temperature , pressure, and concentration on equilibrium constant
21.06.21 **Monday 7,8 – 12G** **22.06.21** **Tuesday 7** **24.6.21** **Thursday 7** GC	**Learning Objective:** To reinforce the concepts by solving exam style questions and worksheet questions. **Learning outcomes:** Students will be able to reinforce the concepts learned in the previous lesson by answering exam style questions and worksheet questions.	Instruction will be given in the Google classroom to complete the Worksheet.

YEAR 13 A/B – CHEMISTRY

WEEK 43 (20th June to 24th June)

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

Topic:– Further Practical Skills and Techniques

Calculations for excellence.

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

Date	Topic	
20.06.21 Sunday **1-13A ,4-13B** **Mode of Teaching –**GC	**Lesson Objective:** Calculations for Excellence Part 1 **Success Criteria:** Understand the importance of calculations in research.	Written material, Textbook and power point
20.06.21 Sunday **2-13 A** **22.06.2021** Tuesday **2-13B** **Mode of Teaching –** GC	**Lesson Objective:** Calculations for Excellence Part 2 **Success Criteria: students will be able to:** Read the given material and solve problems	Research extract, worksheet and power point
23.06.2021 **Wednesday** **4- 13A** **2-13B** **Mode of Teaching – Zoom/GC**	**Lesson Objective:** Use of Sodium Azide in car airbags? **Success Criteria: students will be able to:** Research and write the working of air bag in car.	Internet and text books for researc

YEAR 13 A/B – CHEMISTRY

WEEK 43 (20th June to 24th June)

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

Topic:– Further Practical Skills and Techniques

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

Date	Topic	
20.06.21 Sunday 5 ,8 **13B** 23.06.21 Wednesday 5 , 6 **13A** **Mode of Teaching –** Zoom /GC	**Lesson Objective:** Further Practical Skills and Techniques **Success Criteria: students will be able to:** Identify various types of uncertainities. Calculate :**Errors and Uncertainties**	Research material and Textbook
20.06.21 Sunday 3 1**3A** 22.06.21 Tuesday 1 **13B** **Mode of Teaching –** Zoom/GC	**Lesson Objective:** • Precision • Accuracy • Uncertainties • Units **Success Criteria: students will be able to:** Calculations based on uncertainties and accuracy.	Internet