

YEAR 9 (A- F) – CHEMISTRY

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Group email/ Google classroom

Topic:– REVISION- SC3a-c & SC4a-c

Resources: Text book, Worksheet, Boardworks, GCSE science free lesson video, power point.

Date	Lesson	Topic	Mode of Teaching	
2 nd May Sunday (girls)	6	Learning Objective : Reinforce <ul style="list-style-type: none"> Describe the structure of atom in terms of subatomic particles- protons, electrons & neutrons Recall the position, relative mass and charge on different subatomic particles and explain why an is neutral. Success Criteria: <ul style="list-style-type: none"> Explain the structure of an atom. Describe how the subatomic particles are arranged in an atom. State that atom is electrically neutral. Locate the position of nucleus in an atom and compare the size of an atom with its nucleus. 	Zoom	Revision work sheet
3 rd May Monday (boys)	7			
3 rd May Monday (girls)	5	Learning Objective : Reinforce <ul style="list-style-type: none"> Define isotopes in terms of subatomic particles. Calculate the numbers of protons, neutrons and electrons in atoms given the atomic number and mass number. Calculate the relative atomic mass of an element from the relative masses and abundances of its isotopes Success Criteria: <ul style="list-style-type: none"> Define atomic number, mass number and relative atomic mass & calculate the numbers of protons, neutrons and electrons using atomic and mass numbers Calculate the relative atomic mass of an element to the correct decimal places. Calculate percentage abundances of different isotopes of an element from being given the RAM and the mass numbers of the isotopes. 	Zoom	Revision work sheet
3 rd May Monday (boys)	8			
3 rd May Monday (girls)	6	Learning Objective : Reinforce <ul style="list-style-type: none"> Explain how the electronic configuration of an element is related to its position in the periodic table Identify elements as metals or non-metals according to their position in the periodic table Success Criteria: <ul style="list-style-type: none"> Use the periodic table to write the electronic configuration & Explain the links between an element's position in the periodic table and its electronic configuration.. Use patterns in the Periodic Table to interpret data and predict few properties of elements. Divide the elements into metals, non metals and semimetals locate their position in the periodic table. 	GC	Revision work sheet
5 th May Wednesday – (boys)	1			

YEAR 10 A/D/E–CHEMISTRY (girls)

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

Topic: Choosing materials, composite materials, Nanoparticles

Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
2/5/2021 Sunday	3	<p>Learning Objective: Compare, using data, the physical properties of glass and clay ceramics, polymers, composites and metals.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what glass ceramics and clay ceramics are. • Explain why the properties of a material make it suitable for a given use. • Select suitable materials for a particular purpose using given data. 	Zoom	Teacher uses powerpoint presentation to explain how are materials chosen for a given use
5/5/2021 Wednesday	3	<p>Learning Objective: Explain why the properties of a material make it suitable for a given use and use data to select materials appropriate for specific uses.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what composite materials are. • Give some examples of composite materials. • Explain why the properties of a composite material make suitable for a given use. 	Zoom	Teacher uses powerpoint presentation that contains Interactive questions.
6/5/2021 Thursday	2 3	<p>Learning Objective:</p> <ol style="list-style-type: none"> 1. Compare the size of nanoparticles with the sizes of atoms and molecules. 2. Describe how the properties of nanoparticulate materials are related to their uses including surface area to volume ratio of the particles they contain, including sunscreens. <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what nanoparticles are. • Compare the relative sizes of nanoparticles, atoms and molecules. <p>Learning Objective: To answer the questions, in the worksheet.</p> <p>Learning outcome: Students will be able to reinforce the concepts learned by answering the questions in the worksheet.</p>	Zoom	<p>Teacher uses powerpoint presentation to explain the properties of nanoparticulate materials.</p> <p>Instruction will be given in the Google classroom to complete the Worksheet.</p>

Home work: Solve S1 and E1 questions (pg no.203)

YEAR 10 B/C/F–CHEMISTRY (Boys)

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

Topic: Choosing materials, composite materials, Nanoparticles

Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
2/5/2021 Sunday	0	<p>Learning Objective: Compare, using data, the physical properties of glass and clay ceramics, polymers, composites and metals.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what glass ceramics and clay ceramics are. • Explain why the properties of a material make it suitable for a given use. • Select suitable materials for a particular purpose using given data 	Google Meet	Teacher uses powerpoint presentation to explain how are materials chosen for a given use
3/5/2021 Monday	1 2	<p>Learning Objective: Explain why the properties of a material make it suitable for a given use and use data to select materials appropriate for specific uses.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what composite materials are. • Give some examples of composite materials. • Explain why the properties of a composite material make it suitable for a given use. <p>Learning Objective: 1. Compare the size of nanoparticles with the sizes of atoms and molecules. 2. Describe how the properties of nanoparticulate materials are related to their uses including surface area to volume ratio of the particles they contain, including sunscreens.</p> <p>Learning Outcome:</p> <ul style="list-style-type: none"> • Recall what nanoparticles are. • Compare the relative sizes of nanoparticles, atoms and molecules. 	Google Meet	<p>Teacher uses powerpoint presentation that contains Interactive questions.</p> <p>Teacher uses powerpoint presentation to explain the properties of nanoparticulate materials.</p>
5/5/2021 Wednesday	4	<p>Learning Objective: To answer the questions, in the worksheet.</p> <p>Learning outcome: Students will be able to reinforce the concepts learned by answering the questions in the worksheet.</p>	GC	Instruction will be given in the Google classroom to complete the Worksheet.

Home work: Solve S1 and E1 questions (pg no.203)

YEAR 11 A/D/E – CHEMISTRY (Girls)

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

Date	Topic	
02.05.21 Sunday 8 th period Mode of Teaching: GC	Learning Objective: Evaluate the advantages of recycling polymers, including economic implications and how recycling can preserve both the environment and the supply of valuable raw materials.	Refer Google reference sites.
03.05.21 Monday 4 th period Mode of Teaching: Zoom	Learning Objective: Know what is meant by the terms 'empirical formula' and 'molecular formula' Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae Use of same calculation to calculate number of moles of water of crystallisation attached.	Teacher uses powerpoint presentation with interactive questions
04.05.21 Wednesday 8 th period Mode of Teaching: GC	Learning Objective: Evaluate the advantages of recycling polymers, including economic implications and how recycling can preserve both the environment and the supply of valuable raw materials.	Refer Google reference sites
05.05.21 Thursday 5 th Period Mode of Teaching: Zoom	Learning Objective: Be able to use experimental data to calculate empirical formulae Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae.	Teacher uses powerpoint presentation with interactive questions
05.05.21 Thursday 6 th Period Mode of Teaching: GC	Learning Objective: Research on Biopolymers and applications in medicine.	Refer Google reference sites

YEAR 11 B/C/F – CHEMISTRY (Boys)

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

Date	Topic	
02.05.21 Sunday 1 st Period Mode of Teaching: GC	Learning Objective: Evaluate the advantages of recycling polymers, including economic implications and how recycling can preserve both the environment and the supply of valuable raw materials.	Refer Google reference sites.
02.05.21 Sunday 2 nd Period Mode of Teaching: GC	Learning Objective: Evaluate the advantages of recycling polymers, including economic implications and how recycling can preserve both the environment and the supply of valuable raw materials.	Refer Google reference sites
03.05.21 Monday 3 rd Period Mode of Teaching: Zoom	Learning Objective: Know what is meant by the terms ‘empirical formula’ and ‘molecular formula’ Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae Use of same calculation to calculate number of moles of water of crystallisation attached.	Teacher uses powerpoint presentation with interactive questions
04.05.21 Tuesday 7 th Period Mode of Teaching: Zoom	Learning Objective: Be able to use experimental data to calculate empirical formulae Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae.	Teacher uses powerpoint presentation with interactive questions
06.05.21 Thursday 4 th Period Mode of Teaching: GC	Learning Objective: Research on Biopolymers and applications in medicine.	Refer Google reference sites

YEAR 11 G/H-CHEMISTRY (IGCSE)

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

Date	Topic	
02.05.21 Sunday 6 th period Mode of Teaching: Zoom	Learning Objective: Know what is meant by the terms 'empirical formula' and 'molecular formula' Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae Use of same calculation to calculate number of moles of water of crystallisation attached.	Teacher uses powerpoint presentation with interactive questions
03.05.21 Monday 5 th period Mode of Teaching: Zoom	Learning Objective: Be able to use experimental data to calculate empirical formulae Learning Outcome: Work few examples of calculating empirical formulae and further to calculate molecular formulae.	Teacher uses powerpoint presentation with interactive questions
04.05.21 Tuesday 1 st & 2 nd Mode of Teaching: GC	Lesson Objective: Evaluate the advantages of recycling polymers, including economic implications and how recycling can preserve both the environment and the supply of valuable raw material.	Refer Google reference sites
06.05.21 Thursday 4 th period Mode of Teaching: GC	Lesson Objective: Research on Biopolymers and applications in medicine.	Refer Google reference sites

YEAR 12 G /D – CHEMISTRY

WEEK 33 (2nd May to 6th May)

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

Topic:– Deducing structures from mass spectra and infrared spectra

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

Date	Topic	
03.05.2021 Monday 3 12D 04.05.2021 Tuesday 1 12G Mode of Teaching: Zoom	Lesson Objective: To be able to use data from a mass spectrometer to: i) determine the relative molecular mass of an organic compound from the molecular ion peak ii) suggest possible structures of a simple organic compound from the m/z of the molecular ion and fragmentation patterns Learning Outcome: <ul style="list-style-type: none"> • works out the structure of an organic molecule from m/z values in the mass spectra • writes the equation for the formation of ions used in the deduction of structures • distinguishes between two structures using mass spectra 	Teacher uses PowerPoint presentation that contains interactive questions.
04.05.2021 Tuesday 2 12G 7 12D Mode of Teaching: Zoom	Lesson Objective: To be able to use data from infrared spectra to deduce functional groups present in organic compounds and to predict infrared absorptions, given wavenumber data, due to familiar functional groups, including: i) C–H stretching absorption in alkanes, alkenes and aldehydes ii) C=C stretching absorption in alkenes iii) O–H stretching absorption in alcohols iv) C=O stretching absorption in aldehydes and ketones v) C=O stretching absorption and the broad O-H stretching absorption in carboxylic acids vi) N–H stretching absorption in amines Learning Outcome: <ul style="list-style-type: none"> • explains why some molecules absorb infrared radiation while others don't. • identifies the homologous series from the IR spectrum • uses IR spectra to distinguish between structures • predicts the IR spectrum of an organic compound 	Teacher uses PowerPoint presentation that contains interactive questions.
05.05.2021 Wednesday 2 12G 06.05.2021 Thursday 7 12D Mode of Teaching: GC	Lesson Objective: To answer the exam - style questions based on deducing structures from mass spectra and infrared spectra Learning Outcome: Students will be able to reinforce the concepts learned in the previous lesson by answering the questions.	Work assigned through GC. Instruction will be given in the GC to complete the work.

HOMEWORK: Complete the textbook questions Q1 – Q2, on page 219 and 221.

YEAR 12 D/G– CHEMISTRY

WEEK 33 (2nd May to 6th May)

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

Topic 6D: ALCOHOLS

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

Date	Topic	
04.05.21 Tuesday 8 12D	Learning Objective: mechanism of dehydration of alcohols. Learning Outcome: students will be able to:	Teacher uses power point to show various examples of alcohols reactions .
03.05.21 Monday 6 12G Mode of Teaching – Zoom	Represent mechanism of elimination/ dehydration reactions in alcohols , using following examples for reaction of alcohols with: Conc. Sulphuric acid to give different alkene. Identification of geometrical isomers in the products.	Lesson will be developed with many examples.
03.05.21 Monday 7- 12G 04.05.21 Wednesday 7- 12D Mode of Teaching – ZOOM	Learning Objective: oxidation of alcohols. Learning Outcome: students will be able to: iii potassium dichromate(VI) in dilute sulfuric acid to oxidise primary alcohols to aldehydes (including a test for the aldehyde using Benedict's/Fehling's solution) and carboxylic acids, and secondary alcohols to ketones <i>in equations, the oxidising agent can be represented as [O].</i> .	Teacher uses power point presentation and worksheet that based on various types of reactions of alcohols.
04.05.21 Wednesday 8- 12D 1-12G Mode of Teaching – zoom	Learning Objective: oxidation of alcohols. Learning Outcome: students will be able to: Writes the equations for the oxidation of simple primary alcohols to aldehyde and then to carboxylic acid with oxidising agent and conditions knows that secondary alcohols gives different product in oxidation to primary Predict the position of OH group leading to ketone formation Reasons out why tertiary alcohols does not undergo oxidation. Identifies the different colour changes when potassiumdichromate solution or fehling's solution is added to alcohols.(on heating)	Teacher uses questions from various past papers. Teacher uses worksheet that exam style questions from text book.

HOMEWORK: Solve exam style questions from given work sheet.

YEAR 13 A /B –CHEMISTRY

WEEK 33 (2nd May to 6th May)

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

Resources: Text book, Worksheets, video, power point presentations.

Date	Topic	
2 nd May Sunday 1-13A 4-13B	Lesson Objective: Find 5 uses of buffer solutions in industry	Refer Google sites.
4 th May Tuesday 2-13B Mode of Teaching – GC		
Wednesday 5 th May 4- 13A 2-13B Mode of Teaching – GC	Lesson Objective: Solve the quiz on Acid - base equilibrium https://global.oup.com/uk/orc/biosciences/chembio/crowe3e/student/mcqs/ch17/	

YEAR 13 A/B– CHEMISTRY

WEEK 33 (2nd May to 6th May)

Work Sent to the students through Google classroom

2.05.21 Sunday 5 , 8 13B	Learning Objective: Lesson Objective: Make hot ice and write a report which includes chemistry, equations and uses involved in the experiment. Take a video of the experiment doing (2 -3 minutes)	Use house hold chemicals. Refer Google sites.
5.05.21 Wednesday 5 , 6 13A Mode of Teaching – GC		
2.05.21 Sunday 3 13A	5 Nobel prize winners in chemistry and their findings. Only 1 page is needed	Refer Google sites.
04.5.21 Tuesday 1 13B		

