

YEAR 9 (A- F) – CHEMISTRY

WEEK 31 (18th April to 22nd April)

Work Sent to the students through Group email/ Google classroom

Topic:– SC7d – Bonding Models

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

Date	Lesson	Topic	Mode of Teaching												
18 th April Sunday (girls)	6	Learning Objective : <ul style="list-style-type: none"> Explain why elements and compounds can be classified as <ul style="list-style-type: none"> a ionic b covalent, simple molecular c covalent, giant molecular d metallic Success Criteria: <ul style="list-style-type: none"> Compare the structure and bonding in ionic, covalent and metallic structures. Compares the physical properties like melting and boiling point in these structures. 	Zoom	PPT / Video on Bonding Models											
19 th April Monday (boys)	7				19 th April Monday (girls)	5	Learning Objective : <ul style="list-style-type: none"> How the structure and bonding of these types of substances results in different physical properties, including relative melting point and boiling point, relative solubility in water and ability to conduct electricity (as solids and in solution) Success Criteria: <ul style="list-style-type: none"> Explain how the structure and bonding of a substance is linked to its physical properties. (Relative melting point and boiling point, relative solubility in water and ability to conduct electricity, as solids and in solution.) Explain why we use models to represent structure and bonding. 	Zoom	PPT / Video on Bonding Models	19 th April Monday (boys)	8	19 th April Monday (girls)	6	Learning Objective : <ul style="list-style-type: none"> Describe the limitations of particular representations and models to include dot and cross, ball and stick models and two- and three dimensional representations Success Criteria: <ul style="list-style-type: none"> Represent structures and bonding using a variety of different models (dot and cross, ball and stick, 2D, 3D). Describe the limitations of the different models used to represent structure and bonding (dot and cross, ball and stick, 2D, 3D). 	GC
19 th April Monday (girls)	5	Learning Objective : <ul style="list-style-type: none"> How the structure and bonding of these types of substances results in different physical properties, including relative melting point and boiling point, relative solubility in water and ability to conduct electricity (as solids and in solution) Success Criteria: <ul style="list-style-type: none"> Explain how the structure and bonding of a substance is linked to its physical properties. (Relative melting point and boiling point, relative solubility in water and ability to conduct electricity, as solids and in solution.) Explain why we use models to represent structure and bonding. 	Zoom	PPT / Video on Bonding Models											
19 th April Monday (boys)	8				19 th April Monday (girls)	6	Learning Objective : <ul style="list-style-type: none"> Describe the limitations of particular representations and models to include dot and cross, ball and stick models and two- and three dimensional representations Success Criteria: <ul style="list-style-type: none"> Represent structures and bonding using a variety of different models (dot and cross, ball and stick, 2D, 3D). Describe the limitations of the different models used to represent structure and bonding (dot and cross, ball and stick, 2D, 3D). 	GC	Worksheet SC7d	21 st April Wednesday – (boys)	1				
19 th April Monday (girls)	6	Learning Objective : <ul style="list-style-type: none"> Describe the limitations of particular representations and models to include dot and cross, ball and stick models and two- and three dimensional representations Success Criteria: <ul style="list-style-type: none"> Represent structures and bonding using a variety of different models (dot and cross, ball and stick, 2D, 3D). Describe the limitations of the different models used to represent structure and bonding (dot and cross, ball and stick, 2D, 3D). 	GC	Worksheet SC7d											
21 st April Wednesday – (boys)	1														

YEAR 10 A/D/E–CHEMISTRY (girls)

WEEK 31 (18th April to 22nd April)

Work Sent to the students through Google classroom

Topic: Electrolysis

Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
18/4/2021 Sunday	3	Learning Objective: To reinforce alloying, uses of metals and their alloys, by discussing the questions in the textbook and worksheet Learning Outcome: <ul style="list-style-type: none">• Explain, using models, why converting pure metals into alloys often increases the strength of the product• Explain how the uses of metals are related to their properties (and vice versa), including aluminium, copper and gold and their alloys including magnalium and brass	Zoom	Teacher uses powerpoint presentation to reinforce the concepts.
21/4/2021 Wednesday & 22/4/2021 Thursday	3 & 2	Learning Objective: To reinforce electrolysis, products from electrolysis, electroplating and corrosion Learning Outcome: <ul style="list-style-type: none">• Recall electrolysis.• Identify the products of electrolysis.• Write half equations for reactions occurring at the anode and cathode in electrolysis.• How do you explain and represent the reactions taking place at the electrodes in electrolysis?• Draws diagrams for the set up of electroplating.• Describe the electrolysis of different electrolytes.	Zoom	Teacher uses powerpoint presentation to revise the topics.
22/4/2021 Thursday	3	Learning Objective: To answer the questions, in the revision worksheet. Learning outcome: Students will be able to reinforce the concepts learned by answering the questions in the revision worksheet.	GC	Instruction will be given in the Google classroom to complete the Worksheet.

Home work: Solve revision worksheet

YEAR 10 B/C/F–CHEMISTRY (Boys)

WEEK 31 (18th April to 22nd April)

Work Sent to the students through Google classroom

Topic: Electrolysis

Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
18/4/2021 Sunday	0	Learning Objective: To reinforce alloying, uses of metals and their alloys, by discussing the questions in the textbook and worksheet Learning Outcome: <ul style="list-style-type: none">• Explain, using models, why converting pure metals into alloys often increases the strength of the product• Explain how the uses of metals are related to their properties (and vice versa), including aluminium, copper and gold and their alloys including magnalium and brass	Google Meet	Teacher uses powerpoint presentation to reinforce the concepts.
19/4/2021 Monday	1&2	Learning Objective: To reinforce electrolysis, products from electrolysis, electroplating and corrosion Learning Outcome: <ul style="list-style-type: none">• Recall electrolysis.• Identify the products of electrolysis.• Write half equations for reactions occurring at the anode and cathode in electrolysis.• How do you explain and represent the reactions taking place at the electrodes in electrolysis?• Draws diagrams for the set up of electroplating.• Describe the electrolysis of different electrolytes.	Google Meet	Teacher uses powerpoint presentation to revise the topics.
21/4/2021 Wednesday	4	Learning Objective: To answer the questions, in the revision worksheet. Learning outcome: Students will be able to reinforce the concepts learned by answering the questions in the revision worksheet.	GC	Instruction will be given in the Google classroom to complete the Worksheet.

Home work: Solve revision worksheet

YEAR 12 D/G– CHEMISTRY

WEEK 31 (18th April to 22nd April)

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

Topic 6D: Halogenoalkanes

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

Date	Topic	
20.04.21 Tuesday 8 12D	Learning Objective: know that halogenoalkanes can be classified as primary, secondary or tertiary. Learning Outcome: students will be able to: Write the molecular and structural formulae of halogenoalkanes with up to two halogen atoms and up to six carbon atoms.	Teacher uses power point to show various types of formulae representation of halogenoalkanes .
19.04.21 Monday 6 12G Mode of Teaching – Zoom	Use IUPAC rules to name halogenalkanes containing up to two halogen atoms and up to three /six carbon and identify primary ,secondary and tertiary.	Lesson will be developed with many examples.
19.04.21 Monday 7- 12G	Learning Objective: reactions of halogenoalkanes. Learning Outcome: students will be able to: Define nucleophile with examples. understand the reactions of halogenoalkanes with: i) aqueous potassium hydroxide to produce alcohols (where the hydroxide ion acts as a nucleophile) ii) aqueous silver nitrate in ethanol (where water acts as a nucleophile) iii) potassium cyanide to produce nitriles (where the cyanide ion acts as a nucleophile) <i>Students should know this as an example of increasing the length of the carbon chain.</i> iv) ammonia to produce primary amines (where the ammonia molecule acts as a nucleophile)	Teacher uses power point presentation for various reactions. Teacher uses worksheet that based on various types of reactions of haloalkanes.
21.04.21 Wednesday 7- 12D Mode of Teaching – ZOOM		
21.04.21 Wednesday 8- 12D 1-12G Mode of Teaching – zoom	Learning Objective: mechanism of nucleophilic substitution. Learning Outcome: students will be able to: Represent mechanism of nucleophilic substitution reactions in haloalkanes, using following examples for reaction of haloalkane with: i) aqueous potassium hydroxide potassium cyanide to produce nitriles (where the cyanide ion acts as a nucleophile) ammonia to produce primary amines (where the ammonia molecule acts as a nucleophile)	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 12 G /D – CHEMISTRY

WEEK 31 (18th April to 22nd April)

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

Topic:– Alternative Fuels

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

Date	Topic	
19.04.2021 Monday 3 12D	Lesson Objective: Know that alkanes are used as fuels and obtained from the fractional distillation, cracking and reformation of crude oil	Teacher uses PowerPoint presentation that contains interactive questions.
20.04.2021 Tuesday 1 12G Mode of Teaching: Zoom	Learning Outcome: Predict the environmental problems associated with spillage and the combustion of hydrocarbons	
20.04.2021 Tuesday 2 12G 7 12D Mode of Teaching: Zoom	Lesson Objective: Discuss the reasons for developing alternative fuels in terms of sustainability and reducing emissions, including the emission of CO ₂ and its relationship to climate change Learning Outcome: A simple account of the role of catalytic converters in reducing the environmental damage due to vehicle emissions by facilitating the conversion of carbon monoxide to carbon dioxide, of unburnt hydrocarbons to carbon dioxide and water and of NO _x to nitrogen; catalyst poisoning by lead.	Teacher uses PowerPoint presentation that contains interactive questions.
21.04.2021 Wednesday 2 12G 22.04.2021 Thursday 7 12D Mode of Teaching: GC	Lesson Objective: To answer the exam - style questions based on alkanes as fuels and alternative fuels. 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 183.