YEAR 9 (A- F) – CHEMISTRY

WEEK 30 (21st March to 25th March)

Work Sent to the students through Group email/ Google classroom
Topic:– SC7c – Properties of Metals

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

Date	Lesson	Topic	Mode of Teaching	

21st March Sunday **(girls)**	6	**Learning Objective :**
		• Explain the properties of metals, including malleability and the ability to conduct electricity
		Success Criteria:
		• Describe the particles and how they are arranged in metals.
		• Explain why metals are malleable.
		• Explain why metals conduct electricity.
		• Site few examples for metals which are malleable or ductile.
		• Interpret that copper:
		  • is a good conductor of electricity and heat.
		  • can be bent but is hard enough to be used to make pipes or tanks.
		  • does not react with water.
			Zoom	PPT / Video on Properties of Metals

22nd March Monday **(boys)**	7			
22nd March Monday **(girls)**	5	**Learning Objective :** • Describe most metals as shiny solids which have high melting points, high density and are good conductors of electricity whereas most non-metals have low boiling points and are poor conductors **Success Criteria:** • Compare properties of metals with the non-metals. • Site examples of metals and non-metals using a periodic table. • Identify an element as metal or non metal from the data based on its properties	**Zoom**	PPT / Video on Properties of Metals
22nd March Monday **(boys)**	8			
22nd March Monday **(girls)**	6	**Learning Objective :** • Explain the properties of metals, including malleability and the ability to conduct electricity based on chemical bonding found in them. **Success Criteria:** • Describe the particles and how they are arranged in metals. • Explain why metals are malleable. • Explain why metals conduct electricity. • Identify an element as metal or non metal from the data based on its properties	**GC**	Worksheet SC7c
24th March Wednesday – **(boys)**	1			

YEAR 10 A/D/E–CHEMISTRY (girls)

WEEK 30 (21st March to 25th March)

Work Sent to the students through Google classroom
Topic: Transition metals, Corrosion and alloying
Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
21/3/2021 Sunday	3	**Learning Objective:** Recall that most metals are transition metals and that their typical properties include: a high melting point b high density c the formation of coloured compounds d catalytic activity of the metals and their compounds as exemplified by iron. **Learning Outcome:** •Describe the position of the transition metals in the periodic table. • Describe some general physical properties of transition metals. • Describe some general chemical properties of transition metals. •Explain why iron has the typical properties of a transition metal.	**Zoom**	Teacher uses powerpoint presentation to explain the properties of transition metals.
24/3/2021 Wednesday	3	**Learning Objective:** 1.Recall that the oxidation of metals results in corrosion. 2.Explain how rusting of iron can be prevented by: **a** exclusion of oxygen **b** exclusion of water **c** sacrificial protection. **Learning Outcome:** • Describe corrosion of metals as the result of oxidation. • Describe how rusting of iron occurs. • How can the surface of iron be protected from rusting?	**Zoom**	Teacher uses powerpoint presentation explain Corrosion a preventive Methods.
25/3/2021 Thursday	2 3	**Learning Objective:** •Explain, using models, why converting pure metals into alloys often increases the strength of the product. •Explain why iron is alloyed with other metals to produce alloy steels. **Learning Outcome:** • Recall the name of a common alloy. • Describe what alloys are. • Explain why iron is alloyed with other metals. • Explain why alloys are often stronger than the metals they • contain. **Learning Objective:** To answer the questions, on transition metals in the worksheet. **Learning outcome:** Students will be able to reinforce the concepts learned in the	**Zoom** **GC**	Teacher uses powerpoint presentation that contains interactive questions. Instruction will be given in the Google classroom to complete the Worksheet.

		previous lesson by answering the questions in the worksheet.		

Home work:Solve S1 and E1 question :SC11c(Pg99)

YEAR 10 B/C/F–CHEMISTRY (Boys)

WEEK 30 (21st March to 25th March)

Work Sent to the students through Google classroom

Topic: Transition metals,corrosion and Alloying

Resources: Text book, Worksheet, power point.

Date	Lesson	Topic	Mode of Teaching	
21/3/2021 Sunday	0	**Learning Objective:** Recall that most metals are transition metals and that their typical properties include: a high melting point b high density c the formation of coloured compounds d catalytic activity of the metals and their compounds as exemplified by iron. **Learning Outcome:** •Describe the position of the transition metals in the periodic table. • Describe some general physical properties of transition metals. • Describe some general chemical properties of transition metals. •Explain why iron has the typical properties of a transition metal.	**Google Meet**	Teacher uses powerpoint presentation to explain the properties of transition metals.
22/3/2021 Monday	1 2	**Learning Objective:** 1.Recall that the oxidation of metals results in corrosion. 2.Explain how rusting of iron can be prevented by: **a** exclusion of oxygen **b** exclusion of water **c** sacrificial protection. **Learning Outcome:** • Describe corrosion of metals as the result of oxidation. • Describe how rusting of iron occurs. • How can the surface of iron be protected from rusting? **Learning Objective:** •Explain, using models, why converting pure metals into alloys often increases the strength of the product. •Explain why iron is alloyed with other metals to produce alloy steels. **Learning Outcome:** • Recall the name of a common alloy. • Describe what alloys are. • Explain why iron is alloyed with other metals.	**Google Meet**	Teacher uses powerpoint presentation t explain Corrosion an preventive Methods. Teacher uses powerpoint presentation that contains interactive questions.

		• Explain why alloys are often stronger than the metals they contain.		
24/3/2021 Wednesday	4	**Learning Objective:** To answer the questions, on transition metals in the worksheet. **Learning outcome:** Students will be able to reinforce the concepts learned in the previous lesson 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 question :SC11c(Pg99)

YEAR 12 G /D – CHEMISTRY

WEEK 30 (21st March to 25th March)

Work Sent to the students through Zoom Learning Platform / Google classroom
Topic:– Organic chemistry
Resources: Text book, Worksheet file, video, power point presentations.

Date	Topic	Mode of Teaching	
22.3.2021 Monday 3 **12D** 23.3.2021 Tuesday 1 **12G**	**Learning Objective:** 1.Explain what isomerism is and how it arises 2. Explain the difference between structural isomerism and stereoisomerism. 3.Explain E-Z isomerism (geometric/cis-trans isomerism) in terms of restricted rotation around a C=C double bond and the nature of the substituents on the carbon atoms **Learning outcome:** •Explain the existence of structural isomers using alkanes (up to C_5) as examples. •Draw the structural formula for the cis, trans isomers of butene, pentene. • Predict the properties of cis, trans isomers.	Zoom	Teacher uses powerpoint presentation to explain structural and stereo isomerism.
23.3.2021 Tuesday 2 **12G** 7 **12D**	**Learning Objective:** To know that alkanes are used as fuels and obtained from the fractional distillation, cracking and reformation of crude oil **Learning outcome:** • Define fractions. •Predict the environmental problems associated with spillage and the combustion of hydrocarbons	Zoom	Teacher uses ppt to explain how alkane fuels are obtained from the fractional distillation,cracking and reformation of crude oil

24.3.2021 Wednesday 2 **12G** 25.3.2021 Thursday **7 12D**	**Learning Objective:** To 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:** • What are the problems arising from pollutants from the combustion of fuels? • How catalytic converters solve some problems caused by pollutants?	Zoom	Teaacher uses powerpoint presentation tht contains interactive questions on the problems arising from pollutants from the combustion of fuels .

HOMEWORK: Solve textbook questions (pg177)

YEAR 12 D/G– CHEMISTRY

WEEK 30 (21st March to 25th March)

Work Sent to the students through Zoom Learning Platform / Google classroom
TOPIC 6-ORGANIC I AND II

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

Date	Topic	
23.03.21 Tuesday 8 **12D** 22.03.21 Monday 6 **12G** **Mode of Teaching –** Zoom	**Learning Objective:** **Introduction to organic chemistry** **Learning Outcome: students will be able to:** Define hydrocarbon. Site examples of hydrocarbons. Define the term saturated hydocarbon. Predict the structural formula of ethane, propane, butane.	Teacher uses power point to show various types of formulae representation of organic compounds . Lesson will be developed with many examples.
22.03.21 Monday 7- **12G** 24.03.21 Wednesday 7- **12D** **Mode of Teaching –**	**Learning Objective:** Overall calculations using organic chemistry reactions. **Apply to large-scale industrial production – economic viability of process depends on cost and percentage yield of product.** **Learning Outcome: students will be able to:** Be able to calculate percentage yields and percentage atom economies using chemical equations and experimental results	Teacher uses power point presentation and videos to link the concept of information analysis. Teacher uses worksheet that based on various types of calculations.

ZOOM	molar mass of the desired product Atom economy of a reaction = × 100% sum of the molar masses of all products	
24.03.21 Wednesday **8- 12D** **1-12G** **Mode of Teaching –** zoom	**Learning Objective:** empirical formula , molecular formula , and balanced chemical reaction based on stoichiometry analysis of hydrocarbons. **Learning Outcome: students will be able to:** Apply the cumulative concept of calculations , Select the correct steps to solve the given problems and suggest improvements in the lab procedure for various types of calculations. Identify problems and suggest the improvements.	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.