

YEAR 12 G /D – CHEMISTRY

WEEK 3 (13th September to 17th September)

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

Topic:– Mass spectrometry and relative masses of atoms, isotopes and molecules

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

Date	Lesson	Topic	Mode of Teaching	
15.09.2020 Tuesday	1,2 12G	Lesson Objective: Be able to analyse and interpret data from mass spectrometry to calculate relative atomic mass from relative abundance of isotopes and vice versa. Learning Outcome: Interpret spectral lines of mass spectra to determine the relative atomic mass of an element.	Zoom	Teacher uses PowerPoint presentation that contains interactive questions to explain the analyses and interpretation of mass spectra.
14.09.2020 Monday	3 12D	Lesson Objective: Be able to predict the mass spectra, including relative peak heights, for diatomic molecules, including chlorine.		Teacher uses PowerPoint presentation that contains interactive questions to explain the analyses and interpretation of mass spectra.
15.09.2020 Tuesday	7 12D	Learning Outcome: Predict the mass spectra of elements; predict RAM from mass spectra; deduce RMM from molecular ion detection of positive ions.		
16.09.2020 Wednesday	2 12G	Lesson Objective: To answer the questions in the worksheet on mass spectrometry.	GC	Worksheet assigned through GC Instruction will be given in the GC to complete the worksheet and turn in
17.09.2020 Thursday	7 12D	Learning outcome: Students will be able to reinforce the concepts learned in the previous lesson by solving the worksheet		

HOMEWORK: Complete the textbook questions page 15

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Topic 2 – Chemical bonding and structure .

Resources: Text book, Worksheet, Boardworks, powerpoint.

Date	Lesson	Topic	Mode of Teaching	
15.09.2020 Tuesday 12D 14.09.2020 Monday 7-12 G	8 th 12 D 6 th 12G	Lesson Objective: Explain the relationship between covalent bond length and strength, electronegativity and Bond polarity. Success Criteria: ● identify that a covalent bond is formed by the overlapping of two atomic orbitals, each containing a single electron ● identify that a covalent bond is the strong electrostatic attraction between the nuclei of two atoms and the bonding pair of electrons ● understand the relationship between bond length and bond strength in covalent bonds	Zoom	Teacher uses powerpoint presentation that contains interactive questions.
14.09.2020 Monday 7-12 G 16.09.2020 Wednesday 12D	7-12 G 7-12 D	Lesson objective : Identify that electronegativity describes the ability of an atom to attract a bonding pair of electrons. Success Criteria: ● recognise that ionic and covalent bonding are the extremes of a continuum of bonding type and that electronegativity differences lead to bond polarity ● understand what is meant by the term 'polar covalent bond'.	Zoom	Students solve the worksheet file questions and textbook questions.
16.09.2020 Wednesday 12D Wednesday 1st 12 G	8 th -12 D 1 st 12 G	Lesson objective : Explain dative covalent bonds. Success Criteria: Draw Dot-and-cross diagrams and displayed formulae for simple covalent molecules, Dative covalent (coordinate) bonds, Dot-and-cross diagrams involving dative covalent bonds.	Zoom	

Homework : Solve the worksheet problems.