

YEAR 12 G /D – CHEMISTRY

WEEK 5 (27th September to 1st October)

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

Topic:– Electronic configurations
Ionisation energies

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

Date	Topic	
29.09.2020 Tuesday 1 12G 28.09.2020 Monday 3 12D Mode of Teaching: Zoom	Lesson Objective: Know that electrons fill subshells singly, before pairing up, and that two electrons in the same orbital must have different spins. Be able to predict the electronic configurations, using 1s notation and electrons in-boxes notation, of i) atoms, given the atomic number, Z, up to Z = 36 ii) ions, given the atomic number, Z, and the ionic charge, for s and p block ions only, up to Z = 36. Learning Outcome: Deduce electronic configurations of atoms and ions using spdf configuration. Compare the exceptions of Cu and Cr due to added stability of half-filled or filled 3d sub shell.	Teacher uses PowerPoint presentation that contains interactive questions to explain the arrangement of electrons in the different atomic orbitals.
29.09.2020 Tuesday 2 12G 7 12D Mode of Teaching: Zoom	Lesson Objective: Be able to define the terms ‘first ionisation energy’ and ‘successive ionization energies’ Understand how ionisation energies are influenced by the number of protons, the electron shielding and the electron sub-shell from which the electron is removed Learning Outcome: Define 1 st and 2 nd ionization Energies. Writes few equations with state symbols. Apply the factors affecting ionization energy to predict the trends across a period and down a group	Teacher uses PowerPoint presentation that contains interactive questions to explain the term ‘ionisation energy’ and the factors influencing the ionization energies.

30.10.2020 Wednesday 2 12G	<p>Lesson Objective: To answer the questions in the worksheet on Electronic configuration.</p> <p>Learning outcome: Students will be able to reinforce the concepts learned in the previous lesson by solving the worksheet</p>	Worksheet assigned through GC Instruction will be given in the GC to complete the worksheet and turn in
24.09.2020 Thursday 7 12D		
Mode of Teaching: GC		

HOMEWORK: Complete the textbook questions Q1 – Q3, on page 23


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Topic 2 – Shapes of molecules and ions .

Resources: Text book, Worksheet, Video , Boardworks , powerpoint

Date	Topic	
29.09.20 Tuesday 8 12D	<p>Learning Objective:</p> <ul style="list-style-type: none"> - To be able to recall the VSEPR theory - To understand how the VSEPR theory can be used to predict molecular geometry for 5 electron pairs - To visualize the shapes of molecular orbitals using animation. 	Teacher uses powerpoint and interactive animation for shapes.
27.09.20 Monday 6 12G	<p>Learning Outcome:</p> <p>Explain molecular geometry five electron pairs in various combinations of bond pair and lone pairs.</p>	 molecule-shapes_en.html
Mode of Teaching – Zoom	Explain shape of various ions and simple molecules with 5 pairs of electrons.	Instructions will be given to complete chapter questions.

<p>27.09.20 Monday 7- 12G</p> <p>30.09.20 Wednesday 7- 12D</p> <p>Mode of Teaching – ZOOM</p>	<p>Learning Objective:</p> <ul style="list-style-type: none"> - To visualize the shapes of molecular orbital on the basis of repulsion between lone pairs is much more than repulsion between lone pair and a bond pair, as well as repulsion between bond pairs <p>Learning Outcome:</p> <ul style="list-style-type: none"> - describes shape that molecules form various numbers of bond pairs and lone and lone pairs for total six pairs of electrons. <p>Predict the bond angles, shapes of simple molecules and ions using electron pair repulsion theory.</p>	<p>Teacher uses powerpoint presentation and animations to explain shapes.</p> <p>Teacher uses worksheet that contains interactive questions, to explain the shapes.</p>
<p>30.09.20 Wednesday 8- 12D 1-12G</p> <p>Mode of Teaching – Zoom</p>	<p>Learning Objective:</p> <ul style="list-style-type: none"> - To understand how the VSEPR theory can be used to predict molecular geometry on the bases of bond pairs and lone pairs.- To visualize the shapes of molecular orbital on the basis of repulsion between 6 pairs of electrons in various combination of lone pairs and bond pairs. - to understand the shape of complex ions. <p>Learning Outcome:</p> <ul style="list-style-type: none"> - describes shape that molecules form various numbers of bond pairs and lone and lone pairs for total six pairs of electrons. 	<p>Teacher uses past paper questions based on bonding.</p>

HOMEWORK: Solve the given work sheet.