

YEAR 13 A /B –CHEMISTRY

WEEK 4 (20th Sept to 24th Sept)

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

Topic : Acid and Base concept.

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

Date	Topic	
20.09.2020 Sunday 1-13A 4-13B Mode of Teaching – Zoom	Lesson Objective: -Understand that a Brønsted–Lowry acid is a proton donor and a Brønsted–Lowry base is a proton acceptor - recognise that acid–base reactions involve the transfer of protons . Success Criteria: ●define Brønsted–Lowry acid is a proton donor and a Brønsted–Lowry base is a proton acceptor ●explain that acid–base reactions involve the transfer of protons	Teacher uses powerpoint presentation that contains interactive questions. Students solve the worksheet file questions and upload in the google classroom at end of the lesson
Sunday 20.09.2020 2-13 A Tuesday 22.09.2020 2-13B Mode of Teaching – Zoom	Lesson Objective: - identify Brønsted–Lowry conjugate acid–base pairs. -understands a strong acid has a weak conjugate base and vice versa. Success Criteria Describe the Brønsted–Lowry theory of acids and bases and explain the transfer of protons in a neutralisation reaction. Explain the acid 1–base 1 and base 2–acid 2 terminology relate Brønsted–Lowry conjugate acid–base pairs Use the terminology of acid 1- base1 to identify acid-conjugate base pairs in equations.	Teacher uses powerpoint presentation that contains interactive questions. Students solve the worksheet file questions and upload in the google classroom at end of the lesson

<p>Wednesday 23.09.2020 4- 13A 2-13B Mode of Teaching – Zoom</p>	<p>Lesson Objective:</p> <p>- understand the difference between a strong and a weak acid in terms of degree of Dissociation</p> <p>Success Criteria:</p> <ul style="list-style-type: none"> ● explain that acid–base reactions involve the transfer of protons ● identify the difference between a strong and a weak acid in terms of degree of dissociation <ul style="list-style-type: none"> • Write the equations for the reaction of hydrochloric acid and water, ethanoic acid and water and ammonia and water : identify conjugate acid base pairs for each reaction. 	<p>Teacher uses powerpoint presentation that contains interactive questions.</p> <p>Students solve the worksheet file questions and upload in the google classroom at end of the lesson</p>
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Homework : Solve worksheet file questions of acid base concept

YEAR 13 A/B– CHEMISTRY

WEEK 4 (20th Sept to 24th Sept)

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

Topic:– Chromium chemistry

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

Date	Topic	
20.09.20 Sunday 4 13A 5 13B Mode of Teaching – Zoom	Learning Objective: Know that the dichromate(VI) ion, $\text{Cr}_2\text{O}_7^{2-}$, can be converted into chromate(VI) ions as a result of the equilibrium, $2\text{CrO}_4^{2-} + 2\text{H}^+ \rightleftharpoons \text{Cr}_2\text{O}_7^{2-} + \text{H}_2\text{O}$. Learning Outcome: Write equation and conditions for the interconversion dichromate(VI) ion, $\text{Cr}_2\text{O}_7^{2-}$, into chromate(VI) ions as a result of the equilibrium, $2\text{CrO}_4^{2-} + 2\text{H}^+ \rightleftharpoons \text{Cr}_2\text{O}_7^{2-} + \text{H}_2\text{O}$.	Teacher uses powerpoint presentation that helps students to solve questions with the data of standard electrode potential. Instructions will be given to complete chapter questions.
20.09.20 Sunday 8 13B 23.09.20 Wednesday 5 13A Mode of Teaching – Zoom	Learning Objective: Understand, in terms of the relevant E^0 values, that the dichromate(VI) ion, $\text{Cr}_2\text{O}_7^{2-}$: i. can be reduced to Cr^{3+} and Cr^{2+} ions using zinc in acidic conditions ii. can be produced by the oxidation of Cr^{3+} ions using hydrogen peroxide in alkaline conditions Learning Outcome: <ul style="list-style-type: none"> • Explain and write equations for the reaction of <ul style="list-style-type: none"> - dichromate(VI) ion, $\text{Cr}_2\text{O}_7^{2-}$ to Cr^{3+} and Cr^{2+} ions using zinc in acidic conditions. - dichromate(VI) ion, $\text{Cr}_2\text{O}_7^{2-}$ to Cr^{3+} using hydrogen peroxide. • Discuss the colours of chromium compounds in the different oxidation states. 	Teacher uses powerpoint presentation and video to demonstrate the chromium chemistry. Teacher uses worksheet that contains interactive questions, to explain the calculations based on standard electrode potential of different half reactions.
22.09.20 Tuesday 1 13B	Learning Objective: Reinforce the concepts of reactions of transition metal complexes with sodium hydroxide and ammonia.	Teacher uses 2 past paper questions based on all

<p>23.09.20 Wednesday 6 13A</p> <p>Mode of Teaching – Zoom</p>	<p>Learning Outcome:</p> <ul style="list-style-type: none"> • Write the balanced ionic equation for the reactions involved. • Discuss the interconversion reactions of vanadium in different oxidation states based on the E^0 values. • Identify the colors of different species when it appears in equations. 	<p>reactions to revise the entire topic.</p>
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HOMEWORK: Solve worksheet file questions of transition metal complexes.