**Year 10 Medium Term Plan Chemistry (Scheme of Work Term 2)**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Month** | **Week** | **Model of Learning** | **Unit/Subunit** | **Curriculum Standard** | | **Learning outcomes** | **Prior Learning** | **Cross curricular links** | **Resources** | **Home learning/ Homework** | | **Assessment Platform/ Apps for**  **AFL** | **Key vocabulary** | **End of Term reflection/ modification** |
| **January** | | | | | | | | | | | | | | | |
| January | Week 16  (3/01/2021-07/01/2021) | Blended learning | **Inorganic chemistry** | | **Reactivity series** | Students will be assessed on their ability to:  understand how metals can be arranged in a reactivity series based on their reactions  with:  • water  • dilute hydrochloric or sulfuric acid.  understand how metals can be arranged in a reactivity series based on their  displacement reactions between:  • metals and metal oxides  • metals and aqueous solutions of metal salts.  know the order of reactivity of these metals: potassium, sodium, lithium, calcium,  magnesium, aluminium, zinc, iron, copper, silver, gold  know the conditions under which iron rusts  understand how the rusting of iron may be prevented by:  • barrier methods  • galvanising  • sacrificial protection.  understand the terms:  • oxidation  • reduction  • redox  • oxidising agent  • reducing agent  in terms of gain or loss of oxygen and loss or gain of electrons. | Alkali Metals And halogens | Biology,maths | Edexcel International GCSE Chemistry Student book. | | Past paper question Practice | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | galvanising  sacrificiaprotection  oxidation  reduction  redox  oxidising agent  reducing agent |  |
| January | Week 17  (10/01/2021-14/01/2021) | Blended Learning | **Principles of chemistry** | | **Chemical formulae, equations** | Students will be assessed on their ability to:  Write word equations and balanced chemical equations (including state symbols):  • for reactions studied in this specification  • for unfamiliar reactions where suitable information is provided.  calculate relative formula masses (including relative molecular masses) (*M*r) from  relative atomic masses (*A*r) | Ionic Bonding, Covalent bonding and formula writing | Math , biology  Mathematical skills | Edexcel International GCSE Chemistry Student Book | | Past paper question Practice | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Relative formula mass |  |
| January | Week 18  (17/01/2021-21/01/2021) | Mid Year Assessment | | | | | | | | | | | | |
| January | Week 19  (24/01/2021-28/01/2021) | Mid Year Assessment | | | | | | | | | | | | |
| January/Feb | Week 20  (31/01/2021-04/02/2021) | Blended Learning | **Principles of chemistry** | | **Electrolysis** | Students will be assessed on their ability to:  know that covalent compounds do not usually conduct electricity  understand why covalent compounds do not conduct electricity  understand why ionic compounds conduct electricity only when molten or in aqueous solution  know that anion and cation are terms used to refer to negative and positive ions respectively. | Ionic bonding  Covalent bonding | Physics | Edexcel International GCSE Chemistry Student Book: Pages 158-159 | | Past paper question Practice | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Cation , anions, covalent bonding, ionic bonding, aqeous , molten |  |
| **February / March** | | | | | | | | | | | | | | | |
| February | Week 21  (07/02/2021-11/02/2021) | Blended Learning | **PRINCIPLES OF CHEMISTRY** | **Electrolysis** | | Students will be assessed on their ability to:  describe experiments to investigate electrolysis, using inert electrodes, of molten compounds (including lead(II) bromide) and aqueous solutions (including sodium chloride, dilute sulfuric acid and copper(II) sulfate) and to predict the products | Ionic bonding  Covalent bonding | Physics | Edexcel International GCSE Chemistry Student Book: Pages 158-159 | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Aqueous soltuions |  |
| February | Week 22  (14/02/2021-18/02/2021) | Blended learning | **PRINCIPLES OF CHEMISTRY** | **Electrolysis** | | write ionic half-equations representing the reactions at the electrodes during electrolysis and understand why these reactions are classified as oxidation or reduction | Ionic bonding  Covalent bonding | Physics | Edexcel International GCSE Chemistry Student Book: Pages 112-118 | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Oxidation, reduction |  |
| **Half Term Break For students 21st Feb To 23rd Feb** | | | | | | | | | | | | | | |
| February | Week 23  (21/02/2021-25/02/2021) | Blended Learning | **Physical chemistry** | **Rates of reaction** | | Students will be assessed on their ability to:  describe experiments to investigate the effects of changes in surface area of a solid,  concentration of a solution, temperature and the use of a catalyst on the rate of a  reaction  describe the effects of changes in surface area of a solid, concentration of a solution,  pressure of a gas, temperature and the use of a catalyst on the rate of a reaction | Principles of chemistry | Maths, biology | Edexcel International GCSE Chemistry Student Book: | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Catalyst, concentration, surface area, pressure |  |
| February | Week 24  (28/02/2021-04/03/2021) | Blended learning | **Physical chemistry** | **Rates of reaction** | | Students will be assessed on their ability to:  explain the effects of changes in surface area of a solid, concentration of a solution,  pressure of a gas and temperature on the rate of a reaction in terms of particle  collision theory  know that a catalyst is a substance that increases the rate of a reaction, but is  chemically unchanged at the end of the reaction  know that a catalyst works by providing an alternative pathway with lower activation  energy  draw and explain reaction profile diagrams showing Δ*H* and activation  energy | Principles of chemistry | Maths, biology | Edexcel International GCSE Chemistry Student Book: | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Particle collision theory, surface area, concentration |  |
| **March** | | | | | | | | | | | | | | | |
| March | Week 25  (07/03/2021-11/03/2021) | Blended learning | **Inorganic chemistry** | Acids, alkalis and titrations | | Students will be assessed on their ability to:  describe the use of litmus, phenolphthalein and methyl orange to distinguish between  acidic and alkaline solutions  understand how to use the pH scale, from 0–14, can be used to classify solutions as  strongly acidic (0–3), weakly acidic (4–6), neutral (7), weakly alkaline (8–10) and  strongly alkaline (11–14)  describe the use of universal indicator to measure the approximate pH value of an  aqueous solution | Principles of chemistry | Maths, biology | Edexcel International GCSE Chemistry Student Book: | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Indicators, Titration |  |
| March | Week 26  (14/03/2021-18/03/2021) | Blended learning | **Inorganic chemistry** | Acids, alkalis and titrations | | Students will be assessed on their ability to:  know that acids in aqueous solution are a source of hydrogen ions and alkalis in a  aqueous solution are a source of hydroxide ions  know that alkalis can neutralise acids  **describe how to carry out an acid-alkali titration** | Principles of chemistry | Maths, biology | Edexcel International GCSE Chemistry Student Book: | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Neutralization, aqueous solutions. |  |
| March | Week 27  (21/03/2021-25/03/2021) |  | **Inorganic chemistry** | Acids, alkalis and titrations | | Class Test and consolidation | Principles of chemistry | Maths, biology | Edexcel International GCSE Chemistry Student Book: | Past paper question Practice | | Quizizz, Nearpod, Chat box in MS Teams, OneNote, Padlet, Microsoft/ Google Form or any other suitable, accessible app. | Acid , Alkalis, Titration. |  |
|  | **Spring Break 28th March To 8th April** | | | | | | | | | | | | | |