Year 11 – Advent Mock Examinations 2022

| Subject | Chemistry (triple science) | | |
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| **Title/Topic** | **Format** | **Length** | **Date & Time** |
| Paper 1 – Chemistry | Written | 1 hour 45 minutes | Wed 23 November Afternoon |
| Paper 2 – Chemistry | Written | 60 minutes | Tue 29 November Morning |

## In this Advent assessment I will be asked to show I can…

Paper 1 – HT

- Know how the properties of elements are linked to their position on the periodic table
- Compare group 1 and transition metals
- Draw electronic structures of elements
- Explain how substances conduct electricity
- Describe how ionic bonds form between metals and non-metals
- Plan a method to investigate temperature changes in reactions
- Interpret graphs
- Interpret reaction profile diagrams
- Describe the structure, bonding and properties of the allotropes of carbon
- Use the link between the mole and Avogadro's constant
- Know how to produce a pure dry sample of a soluble salt from an acid and an insoluble metal oxide
- Write ionic equations for the displacement reactions of metals
- Use the terms oxidation and reduction
- Know how to make a simple chemical cell
- Explain the trends in groups of the periodic table
- Calculate relative atomic mass
- Compare the molten and aqueous electrolysis of a substance
- Explain changes at the electrodes during electrolysis
- Use a reactivity series to compare substance's reactivity
- Carry out reacting mass calculations
- Draw dot and cross diagrams
- Calculate the volume of gases produced in reactions
- Know how pH relates to acid strength and concentration
- Carry out titration calculations

Paper 1 – HT

- Draw display structures of organic molecules
- Give the test and positive result for cations and anions
- Interpret experimental data
- Apply the law of conservation of mass
- State why a substance would be heated to a constant mass
- Explain the process of fractional distillation
- Know the uses of petrochemicals
- Write equations for the combustion of hydrocarbons

- Know common atmospheric pollutants and their sources
- Relate the properties of hydrocarbons to their chain lengths
- Describe the process of cracking
- Describe how sewage is treated
- Interpret information of the production of potable water
- Explain why certain processes are required to make water potable
- Define the word pure
- Explain how the Earth's atmosphere has changed over time
- Describe how fossil fuels form
- Investigating rates by turbidity
- Determine rates of reaction from tangents on a graph
- Explaining changes to rates of reaction using collision theory

## What should I do to revise and prepare for this assessment?

To prepare for this assessment:

1. Complete look, cover, write and check on the knowledge organiser statements from atomic structure & periodic table and the structure and bonding booklets.
2. Make flash cards of key words and their definitions.
3. Read through the lesson content in the booklets and make notes to help you learn the information.

## What useful websites/resources could I use to help me prepare?

BBC bitesize
https://www.bbc.co.uk/bitesize/examspecs/z8xtmnb

GCP revision guides
Booklets