Year 11 Chemistry

Yearly Examination 2023

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| **TOPIC**: Yearly Examination | **MARKS:** /75 |
| **SUBMISSION REQUIREMENTS:**  Students complete task during weeks 9/10, in accordance with the examination timetable. | **WEIGHTING:**  35% |
| **OUTCOMES TO BE ASSESSED:**  **CH11-5 Analyses** and **evaluates** primary and secondary data and information  **CH11-6** **Solves** scientific problems using primary and secondary data, critical thinking skills and scientific processes  **CH11-7** **Communicates** scientific understanding using suitable language and terminology for a specific audience or purpose  **CH11-8 Explores** the properties and trends in the physical, structural and chemical aspects of matter  **CH11-9 Describes**, applies and quantitatively **analyses** the mole concept and stoichiometric relationships  **CH11-10 Explores** the many different types of chemical reactions, in particular the reactivity of metals, and the factors that affect the rate of chemical reactions  **CH11-11 Analyses** the energy considerations in the driving force for chemical reactions | |
| **DIRECTIONAL VERBS:**  **Analyse** – Identify components and the relationship between them; draw out and relate implications  **Communicate** - to convey knowledge or information; can occur through different methods, such as written, oral or visual  **Describe** – provide characteristics and features  **Explain** – Relate cause and effect; make the relationships between things evident; provide why and/or how  **Explore** – to examine and investigate something  **Evaluate** – make a judgement based on criteria; determine the value of  **Solve** – to find an answer to, explanation for, or means of effectively dealing with a problem | |
| **TASK DESCRIPTION:**  Students are to complete a written examination based on Module 1 (Properties and Structure of Matter), Module 2 (Introduction to Quantitative Chemistry), Module 3 (Reactive Chemistry) and Module 4 (Drivers of Reactions).  The examination will be set out as follows:  Duration: 2 hours  Total marks: 75  Examination consists of the following components:   * 20 multiple choice questions (20 marks) – worth 1 mark each across all 4 modules * Short and extended responses (55 marks) – ranging from 1-6 marks across all 4 modules   Students will answer questions as instructed on the examination paper on either the answer sheets or booklets that will be provided. | |
| **ASSESSMENT CRITERIA:**  Students will be assessed in accordance with the allocated mark(s) for each question. The marking criteria and feedback will be provided to all students on the return of their examination paper. All marking will adhere to the struct marking criteria for each question.  Students are encouraged to complete regular revision in the lead up to the assessment task, this includes completing CANVAS activities and reviewing available resources, and utilising ATOMI and EdRolo.  Both multiple choice, and short and extended responses will assess the following areas of the syllabus:   * Module 1: **Inquiry question:** How do the properties of substances help us to classify and separate them? * Module 1: **Inquiry question:** Why are atoms of elements different from one another? * Module 1: **Inquiry question:** Are there patterns in the properties of elements? * Module 1: **Inquiry question:** What binds atoms together in elements and compounds? * Module 2: **Inquiry question:** What happens in chemical reactions? * Module 2: **Inquiry question:** How are measurements made in chemistry? * Module 2: **Inquiry question:** How are chemicals in solutions measured? * Module 3: **Inquiry question:** What are the products of a chemical reaction? * Module 3: **Inquiry question:** How is the reactivity of various metals predicted? * Module 3: **Inquiry question:** What affects the rate of a chemical reaction? * Module 4: **Inquiry question:** What energy changes occur in chemical reactions? * Module 4: **Inquiry question:** How much energy does it take to break bonds, and how much is released when bonds are formed? * Module 4: **Inquiry question:** How can enthalpy and entropy be used to explain reaction spontaneity? | |