**NATURAL SCIENCE (PHYSICAL SCIENCE) - GRADE 9 2022**

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| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (19 January 2022 – 25 March 2022)** | | |
| **Matter and Materials** | Elements and compounds   * Periodic Table * Atomic and Electron structure * Nuclear Notation * Naming compounds * Writing formulae * Balancing Chemical Reaction Equations | **Task 1:** Investigation: Construction of a Molecule  7 – 11 Feb    **Task 2:** Controlled Tests  14 – 18 Feb  7 – 11 Mar |
| **PHASE 2 (5 April 2022 – 24 June 2022)** | | |
| **Matter and Materials** | Metals and Non – metals   * Reactions of metals and non – metals with oxygen * Metal oxides * Non – metal oxides | **Task 3:** Practical Investigation:  Reactions of metals and non-metals in oxygen  23 – 27 May  **Task 4:**  June Examinations  13 – 24 June |
| Acids and Bases   * Properties * Names and Formulae of various acids and bases * Uses of acids and bases * pH scale * Neutralisation * Reactions of acids with metals * Reactions of acids and metal hydroxides * Reactions of acids and metal oxides * Reactions of acids and metal carbonates |
| **PHASE 3 (19 July 2022 – 25 November 2022)** | | |
| **Energy and Change** | Forces: (contact and non – contact)   * Electrostatic forces * Magnetic forces * Gravitational force | **Task 5:** Controlled Test  15 – 19 Aug  12 – 16 Sept  **Task 6:** Nov Examinations  14 – 25 Nov |
| Electric circuits   * Cells as chemical systems and sources of energy * Relationships in series and parallel circuits * Potential Difference, Current Strength, resistance * Factors that affect resistance |