**NATURAL SCIENCE (PHYSICAL SCIENCE) - GRADE 9 2023**

|  |  |  |
| --- | --- | --- |
| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (18 January 2023 – 31 March 2023)** |
| **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 Molecule7 – 11 Feb**Task 2:** Controlled Tests 6 – 10 Mar |
| **PHASE 2 (12 April 2023 – 23 June 2023)** |
| **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 Examinations12 – 23 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 (18 July 2023 – 24 November 2023)** |
| **Energy and Change** | Forces: (contact and non – contact)* Electrostatic forces
* Magnetic forces
* Gravitational force
 | **Task 5:** Controlled Test21 – 25 Aug**Task 6:** Nov Examinations13 – 24 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
 |