**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 Molecule7 – 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 Examinations13 – 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
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| **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 Test15 – 19 Aug12 – 16 Sept**Task 6:** Nov Examinations14 – 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
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