**LIFE SCIENCES - GRADE 10 2022**

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| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (15 January 2022 – 25 March 2022)** | | |
| **How Science works** | Scientific skills | **Task 1:** Project– Environmental studies  22 Feb- 5 March  **Task 2:** Practical 2 - Food tests  23 – 26 March  **Task 3:** March Controlled Test |
| **Biosphere to Ecosystems** | Biosphere, Biomes, Environment and Ecosystems |
| Abiotic and biotic factors |
| Energy flow through ecosystems and ecotourism |
| **The Chemistry of Life** | Molecules for life – inorganic compounds |
| Organic compounds |
| Vitamins |
| **PHASE 2 (5 April 2022 – 24 June 2022)** | | |
| **Cells: The Basic Units of Life** | Microscope and Molecular make-up of cells | **Task 4:** Practical 3 – Microscope  17 – 21 May  **Task 5:** June exam |
| Cell structure and function |
| Cell structure and function continued |
| Cell differentiation and specialization |
| **Cell Division** | Mitosis |
| **Plant Tissues** | Simple tissues, epidermal tissues, vascular tissue |
| **Animal Tissues** | Epithelia, connective, muscle, nervous. |
| Application of indigenous knowledge systems and biotechnology |
| **Organs** | Leaf structure |
| **Support and Transport in Plants** | Support and transport in plants - Anatomy of dicotyledonous plants |
| **PHASE 3 (19 July 2022 – 14 November 2022)** | | |
| **Support and Transport in Plants** | Support and transport in plants – Movement of water through the plant and transpiration | **Task 6:** Sept Controlled Test – Support and transport in plants, support in animals  **Task 7:** Final Exam |
| **Support systems in animals** | Skeletons – The human skeleton and its functions. |
| Joints, voluntary muscles, diseases of the skeleton |
| **Transport in Mammals** | The circulatory system |
| Lymph |
| **Diversity, Change and Continuity** | Biodiversity and classification |
| History of Life on Earth |