**MATHEMATICS - GRADE 11 2021**

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| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 ( 23 November 2020 – 23 April 2021)** | | |
| **Probability** | Revision of Grade 10 rules | **Task 1**  Investigation: Number patterns  15 – 19 March    **Task 2**  Controlled Test  12 – 23 April |
| Venn diagrams and Tree diagrams |
| **Algebra** | Solve quadratic equations |
| Solve quadratic inequalities |
| Algebraic expressions: completing the square |
| Solve equations in 2 unknowns, one quadratic |
| Nature of Roots |
| **Statistics** | Graphical representations |
| Ogive curves |
| Standard deviation |
| **Number patterns** | Linear and quadratic number patterns |
| **Analytical Geometry** | Parallel, perpendicular, inclination |
| Equation of a straight line |
| **Euclidean Geometry** | Measurement: surface area and volume |
| **PHASE 2 (3 May 2021 – 9 July 2021)** | | |
| **Trigonometry** | CAST, Reductions | **Task 3:** Assignment: Surface area and volume  10 – 14 May  **Task 4:** June Controlled Tests  28 June – 9 July |
| Identities quotient and squares formulae |
| Trigonometric equations and general solution |
| **Analytical Geometry** | Parallel, perpendicular, inclination |
| Equation of a straight line |
| **Functions** | Investigate characteristics of the functions:  and |
| Average gradient between points on a curve |
| **Number and Exponent** | Surds |
| **PHASE 3 (26 July 2021 – 12 November 2021)** | | |
| **Number and Exponent** | Rational exponents | **Task 5:** Controlled Test: Exponents & Trig functions.  16 – 20 Aug  **Task 6:** Controlled Test: Circle geometry  13 – 17 Sept  **Task 7:** October Exam  25 Oct – 12 Nov |
| Characteristics of the function |
| **Trig functions** | Functions : y = sin k(x + p) ; y = cos k(x + p) and  y = tan k(x + p) |
| **Euclidean Geometry** | Circle theorems |
| Solving riders |
| **Finance** | Simple and compound decay |
| Rate and periods in compound growth and decay |
| **Trigonometry** | Sine, cosine and area rules |
| Solution of right-angled and oblique triangles |