**MATHEMATICS - GRADE 10 2021**

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| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (15 February 2021 – 23 April 2021)** |
| **Algebra** | Products and factors | **Task 1:** Investigation:Number patterns15 – 19 March**Task 2:** Controlled Test 12 – 23 April |
| Algebraic fractions |
| Equations, inequalities and simultaneous equations |
| Solve equations in two unknowns (both linear) |
| **Number patterns** | Linear number patterns |
| **Euclidean Geometry** | Revision of Grade 9 GeometryQuadrilaterals |
| **PHASE 2 (3 May 2021 – 9 July 2021)** |
| **Analytical Geometry** | Distance, midpoint, gradient | **Task 3:** Assignment: Mathematical modelling 31 May – 4 June**Task 4:** June Controlled Test28 June – 9 July  |
| **Transformations** | Reflecting over the x- and y-axes and writing the rule for translation |
| **Functions** | Investigate characteristics of the straight line, parabola and hyperbola   and . |
| **Algebra** | Exponents and exponential equations |
| Placement of surds |
| **Functions** | Investigate characteristics of the exponential function  |
| **Euclidean Geometry** | Midpoint theorem and applications |
| **PHASE 3 (26 July 2021 – 12 November 2021)** |
| **Trigonometry** | Definition of trigonometric ratios | **Task 5:** Controlled Test: Trigonometry16 – 20 Aug **Task 6:** Controlled Test: Trig functions, Finance & Probability20 – 23 Sept**Task 7:** October Exam25 Oct – 12 Nov |
| Solution of problems in 2-dimensions |
| Functions : *y* = sin *kx* + *q* ; *y* = cos *kx* + *q* and *y* = tan *kx* + *q* $ $ |
| **Financial Mathematics**  | Simple and compound growth  |
| **Probability** | Relative and theoretical probability |
| Venn diagrams and Tree diagrams to solve problems |
| **Statistics** | Measurements of central tendency and ranges |
| Interpretation of data |
| **Measurement** | Surface area and volume of solids |