**MATHEMATICS - GRADE 8 2022**

|  |  |  |
| --- | --- | --- |
| **TOPIC** | **ASSESSMENT STANDARDS** | **PORTFOLIO ASSESSMENT TASKS** |
| **PHASE 1 (19 January 2022 – 25 March 2022)** |
| **Numbers, Operations and relationships** | Multiples and factors | **Task 1:** Assignment: Fractions, HCF, LCM, integers, number system7 – 11 Feb & 28 Feb – 4 Mar**Task 2:** March control test:14 – 18 Feb & 7 – 11 March  |
| Integers |
| Fractions |
| Additive and multiplicative inverses |
| **Financial calculations** | Profit and loss |
| Simple interest, loans, hire-purchase |
| **Algebra** | Introduction |
| **Techniques, Strategies in calculations** | Exponents: laws, simple calculations, scientific notation |
| Rounding, estimation |
| Multiple operations |
| **PHASE 2 (5 April 2022 – 24 June 2022)** |
| **Patterns, Functions, Algebra** | Classification of like and unlike terms | **Task 3:** Investigation: Functions & relations16 – 20 May**Task 4:** June Exams:13 – 24 Jun  |
| Addition and subtraction |
| Multiplying and dividing monomials |
| Simplification with brackets |
| Expressions: simplification and combined operations |
| **Equations** | Solving by: inspection, trial and improvement, algebra |
| Checking roots by substitution, calculator usage |
| **Relationships and modelling** | Investigate patterns and functions in Algebra |
| Recording and representation: flow charts and tables |
| Solution as a rule or formula |
| **PHASE 3 (19 July 2022 – 25 November 2022)** |
| **Space and shape** | Intersecting, parallel and perpendicular lines | **Task 5:** Project:Area, Perimeter & Pythag 29 Aug – 2 Sept**Task 6:** Controlled Test15 – 19 Aug & 12 – 16 Sept**Task 7:** Year-end Exam14 – 25 Nov  |
| Triangles: types and side and angle relationships |
| Theorem of Pythagoras |
| Quadrilaterals and other polygons |
| Circles |
| Estimation and calculators |
| Relevant unit conversions |
| **Data Handling** | Collection, Central tendencies, graphical representations and analysis |
| **Graphs** | Drawing graphs |
| **Graphs****Transformations** | Recognising linear vs non-linear and discrete vs continuous |
| Use of terms: maximum, minimum, increasing, decreasing |
| Defining: translation, rotation, reflection |
| **Transformations** | Using symmetry to investigate geometric figures |
| **Consolidation** | Revision of all assessment standards |