Term 3 Project Mathematics Grade 9 Framework – Skills and Content

| **Item No** | **CONTENT AREA** | **TOPICS** | **CONCEPTS AND SKILLS** | **DESCRIPTIVE STATEMENTS**  Learners will be assessed on:- | **Cognitive**  **Level** | **Level of**  **Difficulty** | **Type of item (MCQ/ CR)** | **Max Score** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1.1 | Patterns Functions and Algebra | Graphs | Interpreting graphs | **Interpreting graphs**   * Extend the focus on features of graphs with special focus on the following features of **linear graphs**: * -intercept and -intercept * Gradient   **Drawing graphs**   * Use tables of ordered pairs to plot points and draw graphs on the Cartesian plane * Extend drawing of graphs with special focus on: * drawing linear graphs from given equations * determining equations from given **linear graphs.** | R | M | OE | 6 |
| 2.1  2.2.1  2.2.2 | Interpreting graphs | **Interpreting graphs**   * Extend the focus on features of graphs with special focus on the following features of **linear graphs**: * -intercept and -intercept * Gradient | K  K  K | E  E  E | OE  OE  OE | 1  2  2 |
| 2.3.1  2.3.2  2.3.3  2.3.4  2.3.5 |  | **Interpreting graphs**   * Extend the focus on features of graphs with special focus on the following features of **linear graphs**: * -intercept and -intercept * Gradient   **Drawing graphs**   * Use tables of ordered pairs to plot points and draw graphs on the Cartesian plane * Extend drawing of graphs with special focus on: * drawing linear graphs from given equations * determining equations from given **linear graphs.** | R  K  R  R  K | M  E  M  M  E | OE  OE  OE  OE  OE | 2  2  4  2  2 |
| 3.1  3.2.1  3.2.2  3.3.1  3.3.2  3.4.1  3.4.2  3.4.3 | Space and Shape | Transformation Geometry | Recognize, describe and perform transformations | **Transformations**   * Recognize, describe and perform transformations   with points, line segments and simple geometric figures on a co-ordinate plane, focusing on:   * reflection in the X-axis or Y- axis * translation within and across quadrants | K  K  K  R  R  R  PS  K | E  E  E  M  M  M  M  E | OE  OE  OE  OE  OE  OE  OE  OE | 1  1  1  4  4  1  4  1 |
| 4 | Patterns Functions Algebra  or  Space and Shape | Graphs  or  Transformation Geometry | Solving Problems | **Interpreting graphs**   * Extend the focus on features of graphs with special focus on the following features of **linear graphs**: * -intercept and -intercept * Gradient   **Drawing graphs**   * Use tables of ordered pairs to plot points and draw graphs on the Cartesian plane * Extend drawing of graphs with special focus on: * drawing linear graphs from given equations * determining equations from given **linear graphs.**   Or  **Transformations**   * Recognize, describe and perform transformations   with points, line segments and simple geometric figures on a co-ordinate plane, focusing on:   * reflection in the X-axis or Y- axis * translation within and across quadrants | CP | M | OE | 10 |
| **50** | | | | | | | | |

**KEYS**

K: Knowledge

R: Routine procedure

C: Complex procedure

P Problem solving

E: Easy

M: Moderate

D: Difficult

MCQ: Multiple-choice question

OE: Open ended

**Term 3 Project Grade 9**

**Summary: Cognitive Levels**

| **Cognitive Level According To CAPS** | **Number of items** | **Total marks** | | **Expected CAPS Proportion (%) (Weighting)** | **Actual weighting of the paper** |
| --- | --- | --- | --- | --- | --- |
|  |  | **PFA** | **SS** |  |  |
| Knowledge | 9 | 9 | 4 | ±25% | 26% |
| Routine Procedure | 7 | 14 | 9 | ±45% | 46% |
| Complex Procedure | 1 | 10 | | ±20% | 20% |
| Problem Solving | 1 | 0 | 4 | ±10% | 8% |
| **Total** | 18 |  |  |  |  |
| **Grand Total** |  | 50 | | 100% | 100% |

**Summary: Type of item**

| **Type of item** | **Number of items** | **Total marks** | **Proportion (%) of total paper mark**  **(Weighting)** |
| --- | --- | --- | --- |
| OE | 18 | 50 | 100% |
| **Grand Total** | 18 | 50 | 100% |

**Summary: Level of Difficulty**

| **Level of Difficulty** | **Number of items** | **Total marks** | **Expected Proportion (%) of total paper mark (Weighting)** | **Actual Proportion (%) of total paper mark (Weighting)** |
| --- | --- | --- | --- | --- |
| Easy | 9 | 13 | 30% | 26% |
| Moderate | 9 | 37 | 60% | 74% |
| Difficult | 0 | 0 | 0% | 0% |
| **Grand Total** | 18 | 50 | 100% | 100% |