**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 3: July – September**

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| PROVINCE: |  |
| DISTRICT: |  |
| SCHOOL: |  |
| TEACHER’S NAME: |  |
| DATE: |  |
| DURATION: | 1 Hour |

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| 1. **TOPIC: FUNCTIONS AND RELATIONSHIPS:** Equivalent forms **(Lesson 3)** |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should know and be able to** determine, interpret and justify equivalence of different descriptions of the same relationship or rule presented   * verbally * in flow diagrams * in tables * by formulae * by number sentences |

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| 1. **RESOURCES:** | Textbooks, DBE Workbook 2, Sasol-Inzalo book 2 |
| 1. **PRIOR KNOWLEDGE:** | * Functions and relationships * patterns * substitution |
| 1. **REVIEW AND CORRECTION OF HOMEWORK** (suggested time: 10 minutes)   Homework provides an opportunity for teachers to track learners’ progress in the mastery of mathematics concepts and to identify the problematic areas which require immediate attention. Therefore it is recommended that you place more focus on addressing errors from learner responses that may later become misconceptions. | |
| 1. **INTRODUCTION** (Suggested time: 10 Minutes)   Let learners do the activity below in pairs.  Activity  Calculate the value of 7+25 for each of the values of   1. = 10 | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to :) |
| Let leaners work in groups on the following activities:  **Activity 1**  Calculate the perimeter of a rectangle given the formula as P = 2() when:   * 1. = 4 and = 3   2. = 3,72 and = 2,3   3. l = and =   4. Represent the length, breadth and the perimeter in a table as follows:  |  |  |  |  | | --- | --- | --- | --- | | Length |  |  |  | | Breadth |  |  |  | | Perimeter |  |  |  |   NB: Consolidate by substituting in the formula with the learners so as to help those learners who are struggling. | * complete the activity in their respective groups. * share their solutions with the whole class. * (class discussion) |
| **Activity 2**  Use the given formula = 6 − to determine output values if the input values are 1; 2; 3; 4; 5 and 6. Represent the relationship using a table and a flow diagram. | * complete the activity in their respective groups. * share their solutions with the whole class. * (class discussion) |
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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| Consider the flow diagram below  Rule  1  2  3  4  Input(x)  Output(y)  5      = 2 -   1. Use the given rule to complete the flow diagram above. 2. Describe the relationship between the input and output values in words. 3. Represent the input and output values in a table. |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| 1. **Emphasise that:**   input and output values can be represented in different equivalent which are:   * Verbal descriptions(words) * Number sentences * Flow diagrams * Tables * Formulae   b) **Homework**  The primary purpose of homework is to give each learner an opportunity to demonstrate mastery of mathematics skills taught in class. Therefore homework should be purposeful and the principle of ‘Less is more’ is recommended, i.e. give learners few high quality activities that address variety of skills than many activities that do not enhance learners’ conceptual understanding.  The teachers discuss common errors and misconceptions picked up during the classwork and highlight the correct procedures. E. g. learners might have made errors and mistakes in the process of substituting values especially the substitution of negative numbers.  **Recommended homework**  DBE workbook 2, pg 19 No. 3(e)-(f) and pg 20 No. 1(a)-(c) |