**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 4: October – December**

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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 * integers * 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)   Answer the following questions in pairs  Activity 1  State whether the following are true or false, show all your working.  **Note:**   * Explain to learners that number sentences are also used to represent the relationship between the input and output values. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to:) |
| **Activity 1**   * 1. Complete the table for the values of and in the table below:  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | |  | 0 | 1 | 2 | 5 | 15 |  | 50 | 200 | |  |  |  |  |  |  | 61 |  |  |  * 1. Show how you have calculated the value of the output when is 15.   2. Express each of the rules below in words:   3. Which of the following flow diagrams represent the same calculations as the expression ?   **NB**:   * The input, output values or rules for patterns and relationships can be represented, calculated or described using tables, flow diagrams, number sentences, verbal descriptions and or formulae. * This shows that functions can be represented using different equivalent forms as listed above. | * complete the table(class discussion) |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) | | |
| Find the missing input and output values in the following flow diagrams if the rule is      -1  Input  Output  -4  -3  -2 | | |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) | | |
| 1. Emphasise that**:**  * the way in which an output number can be calculated is called the rule for the relationship. * The rule can be described in **words** or with a **formula**, and in some cases with a **flow diagram.** * The input, output values or rules for patterns and relationships can be represented, calculated or described using tables, flow diagrams, number sentences, verbal descriptions and or formulae. * This shows that functions can be represented using different equivalent forms as listed above.  1. 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. | | |
| Sasol-Inzalo book | DBE Workbook | Textbook |
| Pg 147. No. 1,2,3 and 4 | Pg 120 No. 1a – b, Pg 122 No. 1a –b. |  |