**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: ALGEBRAIC EQUATIONS**: Number sentences (Lesson 5) |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should know and be able to determine the numerical value of an expression by substitution.** |

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| 1. **RESOURCES:** | DBE workbook 2, Sasol-Inzalo book 2, Textbooks |
| 1. **PRIOR KNOWLEDGE:** | * Writing number sentences to describe problem situations * Analyse and interpret number sentences that describe a given situation * Solving number sentences * Properties of numbers * Identifying variables and constants |
| 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) | |
| Given learners the following activity to work through.  Calculate the value of the following expression   1. if   We need to check if will make the equation true. We can do that by substituting with on the LHS and then check if the LHS is equal to the RHS.  Solution:  LHS        RHS  is a solution of the equation   1. Find the value of in the following expression if   Solution:  We know that the LHS from what we did in b) above. | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to:) |
| Explains the meaning of an equation giving appropriate examples like the one below.  Examples:     1. Calculate the value of in the equation , when     **Solution:**  Substitute on the RHS       1. Calculate the value of in the equation , if   **Solution:**  Substitute on the RHS    y = 11   1. What is the perimeter of a rectangle if the length is 2cm and the breadth is 1.5cm?   **Solution**:  Substitute and         1. What is the value of y in the number sentence if . 2. This can solved using more than one method.. We can start by substituting straight away.   **Solution:**  Substitute           1. Think of a different way we can find the value of and try it out.   **Expected Solution(s):** We can start by making y the subject of the formula and then substituting or use any suitable method.  NB: When determining the numerical value an expression, we substitute the variable with the given numerical value. This is called solving by **substitution.** | listen and ask questions |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| **Activity**  Determine the numerical value of the given situation by substitution.   1. , when 2. , when 3. , when 4. The sum of two consecutive even numbers is 82. The smaller number is . 5. Is a solution of the equation ? 6. Jabulani thinks of a number Sihle multiplies this number by 6 and John multiplies it by 3 and adds 9. Sihle and John get the same answer. What number did Jabulani think of? |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. Emphasis that:    * it is important for learner to have a sound background of the following key concepts      + Writing number sentences to describe problem situations      + Analyse and interpret number sentences that describe a given situation      + Solving number sentences      + Identifying variables and constants      + Properties of numbers    * learners must be able to substitute correctly 2. 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.  Carefully select appropriate activities from the Sasol-Inzalo books, workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.  **Recommended Homework**:  Calculate the numerical value of the equations below.   1. , when 2. , when 3. , when |