**MATHEMATICS LESSON PLAN**

**GRADE 8**

**TERM 1: January – March**

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

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| **1. TOPIC: ALGEBRAIC EQUATIONS :** Solving equations by inspection **(Lesson 3)** |

**2. CONCEPTS & SKILLS TO BE ACHIEVED:**

**By the end of the lesson, learners should be able to:**

* solve equations by inspection

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| **3. RESOURCES:** | Textbooks, Sasol-Inzalo book 1 |
| **4. PRIOR KNOWLEDGE:** | * describe problem situations using equations * writing equations * solving simple equations * algebraic expressions |
| **5. 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. | |
| **6. NTRODUCTION** (Suggested time: 10 Minutes) | |
| Building from the previous lesson give learners this simple problem situation:  28 divided by a certain number is 4   * learners must establish what number divides into 28 and the answer is 4 * another way of asking this question is “what number multiplied by 4 will give us 28” * ***by inspection the answer for the “number” or is 7, and by checking we can verify that 28 ÷ 7 = 4*** * ***algebraically : {diving by 4 on both sides}***     ***7***  ***using a variable :***  Learners must understand that in each different calculation the teacher presents to them, the variable represents a different number. Introduce the variable as just another form of substitution in the place of a box or line.  Think of an equation as a set of scales that must be balanced.    12  13  25  The two sides of the scale have equal masses, so the scale is balanced. This is shown by the equal sign () in the equation 12 13 25. Hence the LHS RHS. | |

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| **7. LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to:) |
| **Activity 1**  Ask learners to solve the following equations by inspection or trial and improvement or mental substitution. Let them work in groups and after having completed, they must check the solution by inverse operations.   1. 2 40 2. 3 9 18 3. 2 10 50 | * solve the equations by inspection |
| **Activity 2**  Ask learners to verify if the answer is correct.   1. 10 + 5 + 2 2. 5 – = 3 – 2 3. 2 + 10 + 3 19 – | * check to see if it is the given answer is correct |

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| **8. CLASSWORK ACTIVITIES (Suggested time: 15 minutes)** |  |
| Sasol-Inzalo book 1, Page 123 No. 1 (a), (b) and (f) |
| Choose the letter corresponding to the correct answer    1 + 2 7  A 28  B 20  C 36  D    2 *x* + 1 = + 5  A 16  B 24  C 8  D 8 |
| **9. CONSOLIDATION/CONCLUSION & HOMEWORK / WORKSHEET (Suggested time: 5 minutes)**   1. **Emphasise that**:     learners should:   1. understand the meaning of mathematical terminology and operations used. 2. ensure that the steps are mathematically correct 3. use trial and improvement or inspection to obtain the answer. 4. 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.   **Homework:** Sasol-Inzalo book 1, Page 124 No. 3 (a) - (d) |  |