**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 4: October – December**

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

|  |
| --- |
| 1. **TOPIC: INTEGERS:** CALCULATIONS WITH INTEGERS **(Lesson 7)** |

|  |
| --- |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to :**   * Add and subtract with integers |

|  |  |
| --- | --- |
| 1. **RESOURCES:** | DBE workbook 2, Sasol-Inzalo book 2, Textbooks |
| 1. **PRIOR KNOWLEDGE:** | * addition and subtraction of integers * addition and subtraction of whole numbers * number sentences |
| 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) |
| **Note:** Allow learners to work in small groups and provide answers to the following open number sentences. The emphasis should be more on the arguments or reasons that they pose to support their answers – for that will assist in checking whether the previous lessons were understood.  **Activity**  In each case suggest a number that may make the statement true. Also give an argument to support your answer.   1. 20 (a number) 8   20 (−12) 8 Because 20 12 8 and 12 8 (−12) 12 (−12) 8 8   1. 20 (a number) 28   20 8 28 Addition of positive integer   1. 20 (a number) = 28   20 (8) 28 To subtract a negative integer gives the same result as adding its  additive inverse   1. 20 (a number) 12   20 8 12 Because the difference between 12 and 20 is 8  Note: highlight to learners that 20(a number) 8 is the same as 20 8. |

|  |  |
| --- | --- |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to:) |
| Divide learners into small groups.  Example:   1. Subtract 9 from   Method 1: count backwards 4; 5; 6; -7; 8; 9; 10; 11; 12  Method 2: 3 ( 9) 12 **0r** 3 (9) 12   1. Subtract 7 from 9   Method 1: count backwards 8; 7,6; 5; 4; 3; 2  Method 2: 9 (7) 9 (7) 2  **Activity 1**   1. Subtract 4 from – 3 2. Subtract 5 from 3 3. Subtract 3 from – 2 4. Subtract 6 from 8 5. Subtract 9 from 7   **Activity 2**  Solve the following:   1. 4 ( 5) 2. 5 (7) 3. 6 ( 9) 4. 2 (1) 5. 7 ( 14) 6. 5 (12) 7. 7 (6) 8. 8 (11)   **Note:** encourage learners not to use a number line in the above calculations but rather the methods that they have learnt in the previous lesson, moving them from the concrete to the abstract. | * Work in pairs to find the solution to the problems and present the answers. |

|  |
| --- |
| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| **Activity 1**  **Note:** learners work in pairs.  In each case, state whether the statement is true or false and give a numerical example to demonstrate your answer.  (a) Subtracting a positive number from a negative number has the same effect as adding the additive inverse of the positive number.  (b) Adding a negative number to a positive number has the same effect as adding the additive inverse of the negative number.  (c) Subtracting a negative number from a positive number has the same effect as subtracting the additive inverse of the negative number.  (d) Adding a negative number to a positive number has the same effect as subtracting the additive inverse of the negative number.  **Activity 2**  Calculate:   1. 5 (12) 2. 8 ( 4) 3. 14 ( 20) 4. (47) (7) 5. 28 ( 5) |

|  |
| --- |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. Emphasise that:  * subtracting a negative number from a negative number is the same as adding * adding a positive number to a positive number is regular addition * subtracting a positive number from a negative number is regular subtraction and the answer will take the sign of the bigger number * adding a negative number to a positive number is regular subtraction and the answer will take the sign of the bigger number  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.   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**:  DBE workbook page 99 no 2(a) to (e) and page 191 no 3 (a) to (e) |