**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: INTEGERS: Calculations with integers (Lesson 4)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson learners should know and be able to** **perform multiplication and division with integers.** |

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| 1. **RESOURCES:** | Textbooks, DBE workbook 1, Sasol-Inzalo Book 1 |
| 1. **PRIOR KNOWLEDGE:** | * apply rules for addition and subtraction of integers * multiply and divide whole numbers |
| 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) | |
| Consider the following examples:   1. = 12   That is, 3 repeated 4 times or multiplication is repeated addition   1. -3 4 = (-3) + (-3) +(-3) +(-3) = -12   That is, repeated 4 times or multiplication is repeated addition   1. 18 3 = 6 and 6 3 = 18 2. 20 5 = 4 and 5 4 = 20   Division is the inverse of multiplication. Hence, if two numbers and the value of their product are known, the answers to two division problems are also known.  Let learners represent the following:   1. = \_\_\_, therefore 5 is repeated \_\_\_ times. Which is 5 \_\_ = \_\_\_ 2. \_\_\_, therefore is repeated\_\_\_\_\_\_ times.   Which is \_\_\_ \_\_ | |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities** |
| ACTIVITY 1  Remind learners that multiplication of integers is commutative using the following examples:   1. (-4) 20 = 20 (-4) 2. 6 (-12) = (-12) 6   ACTIVITY 2  Ask learners if each case is correct    2. -30   ACTIVITY 3  Discuss with learners through guided instruction the multiplication of a negative number with a positive number using the repeated addition method and counting down method.  Example  , therefore is repeated 3 times, which can be written as .  Counting down in intervals of 3  ?  ?  Ask the learners to look at the two examples and try to formulate a rule:  A positive integer multiply by a negative integer \_\_\_\_\_\_\_\_\_\_\_\_ integer | do the following activity:  Sasol-Inzalo Book 1 p 40 no. 1   * do activity 2 * write the activity in   Sasol-Inzalo Book1 p 40  no. 2 and 3  recognize the pattern and verbalize the rule for multiplication of two negative numbers. |
| ACTIVITY 4  Teacher uses the rules of multiplication to help learners derive at the rules for division  Example 1  4 X 3 = 12  Therefore and  Example 2  Therefore and  Example 3  Therefore and  Ask learners to use the examples above to derive the rules for division of integers   * A positive integer positive \_\_\_\_\_\_\_\_\_\_ integer * A positive integer negative \_\_\_\_\_\_\_\_\_\_integer * A negative integer positive \_\_\_\_\_\_\_\_\_\_integer * A negative integer negative \_\_\_\_\_\_\_\_\_ integer | do the following activity:  Sasol-Inzalo Book 1 p 43 no. 2 |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| **Sasol-Inzalo Book 1 p 40 no. 5 and p 43 no. 4** |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) 2. **Emphasise that**:  * A positive integer X positive integer = positive integer * a positive integer X a negative integer = negative integer * a negative integer X a positive integer = negative integer * a negative integer X a negative integer = positive integer  1. **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.  **Sasol-Inzalo Book 1 p 42 no. 12 and p 44 no. 6** |