**MATHEMATICS LESSON PLAN**

**GRADE 9**

**TERM 1: JANUARY – MARCH**

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| PROVINCE: |  |
| DISTRICT: |  |
| SCHOOL: |  |
| TEACHER’S NAME: |  |
| DATE: |  |
| DURATION: | 2 Hours |

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| 1. **TOPIC: ALGEBRAIC EXPRESSION:** Expand and simplify algebraicexpressions **(Lesson 3)** |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:** |
| **By the end of the lesson learners should know and be able to:**   * determine the squares, cubes, square roots and cube roots of single algebraic terms or like algebraic terms, * determine the numerical value of algebraic expressions by substitution, * multiply integers and monomials by polynomials, * divide polynomials by integers or monomials. |

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| 1. **RESOURCES:** | DBE Book 1, Sasol-Inzalo Book1, textbook |
| 1. **PRIOR KNOWLEDGE:** | * laws of exponents * commutative, associative and distributive properties * like and unlike terms * squares, square roots, cubes and cube roots |
| 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. | |

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| 1. **INTRODUCTION** (Suggested time: 10 Minutes) |
| Discuss the following with the learners.   * when adding terms, only add terms having variables with the same power e.g. BUT , because and are not like terms. * when multiplying terms the coefficients are multiplied and the exponents of the same variable are added, e.g. * when dividing terms the coefficients are divided and the exponents of the same variables are subtracted, e.g. . Remind learners that answers must always be in the positive exponential form. |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to:) |
| **Activity 1**  Let the learners do the following problems individually and report back to the whole class.  **Activity 2**  Let the learners do the following problems individually and report back to the whole class.  **Activity 3**  Let the learners do the evaluate the following expressions if and  **Activity 4**  Let the learners do the following problems individually and report back to the whole class.  **Activity 5**  Demonstrate to leaners the following problems: | * complete the activities * share answers with the rest of the class * take part in class discussions |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| Sasol-Inzalo Book 1, pg. 133, no. 7 I, j, no. 9 a, b  Sasol-Inzalo Book 1, pg. 127, no. 1  Sasol-Inzalo Book pg. 143, no. 2 c, e  Sasol-Inzalo Book, pg. 134, no. 3 a, b, e and no. 4 a – d |

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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| 1. **Emphasise that**:  * when adding terms, only add terms having variables with the same power * when multiplying terms the coefficients are multiplied and the exponents of the same variable are added  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 Home work**  Sasol-Inzalo Book 1, pg. 133, no. 7 m, no. 9 c, d  Sasol-Inzalo Book 1, pg. 128, no. 3 d, e  Sasol-Inzalo Book pg. 143, no. 2 d, f  Sasol-Inzalo Book, pg. 134, no. 3 c, d, g and no. 4 e, f |