**MATHEMATICS LESSON PLAN**

**GRADE 9**

**TERM 1: JANUARY – MARCH**

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

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| 1. **TOPIC: EXPONENTS:** Calculations using numbers in exponential form **(Lesson 2)** |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson learners should know and be able to apply** the following general laws of exponents:   * 1 |

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| 1. **RESOURCES:** | Textbooks, DBE Workbook 1 and Sasol-Inzalo Book 1 | |
| 1. **PRIOR KNOWLEDGE:** | * powers * represent integers in exponential form | |
| 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) | | |
| **Examples of activities for baseline assessment**   1. Randomly check the meaning of the following from the learners   (a) (b) (c) (d)   1. Represent the following numbers in exponential form 2. 125 | | |
| **7. LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities**  **(Learners are expected to:)** |
| Exponential laws: This section was done in Grade 8.  Assist learners to   * consolidate knowledge and calculation techniques for exponents developed in Grade 8 * avoid mistakes and misconceptions which learners do when working on exponents. | |  |
| **ACTIVITY 1**  Discuss the contents of the table below with learners to consolidate the laws of exponents done in Grade 8.   |  |  |  | | --- | --- | --- | | LAWS | EXAMPLES | MISCONCEPTIONS | |  |  |  | |  |  |  | |  |  |  | |  |  |  | | 1 where |  |  | | | * participate by responding to question asked |

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| **8. CLASSWORK** (Suggested time: 15 minutes) |
| Sasol-Inzalo Book1 page 74 - 76 .no 1(a - f), 3 & 8  DBE Workbook 1 page 56 - 65  You may also carefully choose the exercises which show different cognitive levels from workbooks and any textbook used in your school. |
| **9. CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| * Always apply the appropriate general laws of exponents when solving problems involving numbers in exponential form * 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 Book 1, DBE workbook 1 and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.   DBE Workbook 1 page xi no. 17 to 22  Sasol-Inzalo Book 1 page 75 no. 4 & 76 no. (5- 7) |