**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: DECIMAL FRACTIONS:** Calculations with decimal fractions(Lesson 1) |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should know and be able to:**   * perform multiple operations with decimal fractions, using a calculator where appropriate * perform multiple operations with or without brackets, with numbers that involve the squares, cubes, square roots and cube roots of decimal fractions * use knowledge of place values to estimate the number of decimal places in the result before performing calculations. |

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| 1. **RESOURCES:** | Textbooks, DBE Workbook 2015, Sasol-Inzalo book, Calculator | |
| 1. **PRIOR KNOWLEDGE:** | * Operations with:   -decimal fractions  -squares, cubes, square roots and cube roots   * Place value * Rounding-off | |
| 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) | | |
| Let learners do the following activities individually.  **Activity 1**  Study the following table and answer the questions that follow:     |  |  |  | | --- | --- | --- | | **A** | **B** | **C** | | 0, 825 | 4,2367 | 3.45 |  1. Round off 0,825 to the nearest (i) unit, (ii) tenth and (iii) hundredth. 2. What is the place value of **2** in 0,825? 3. What is the number value of **2** in 0,825? 4. What is the number value of **6** in 4, 2367? 5. Convert 3,45 into a common fraction.   **Solutions**   1. (i) Unit: 1,0 (ii) tenth: 0,8 (iii) hundredth: 0,83 2. hundredths (h) 3. ( 2 hundredths) 4. (6 thousandths) 5. 3 3   **Activity 2**  Calculate the value of the following, and leave your answer in two decimal places.   1. 3,3 + 4,83 2. 4,73 – 2, 95 3. + | | |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities (Learners are expected to:)** |
| Divide learners into small groups.  **Activity**   1. Write down the estimate value of each of the following, and 2. Calculate the value without using a calculator. Leave your answer in two decimal places. 3. 0,016 0,02 4. (0,024 0,08) 0,6 5. 9,43 (3,61 1,14) 6. 3,43 ( 5,98) 7. - 4 8. 5,55 9. ( ) 10. 11, 75 1,2 0, 256   **Note:** Use a calculator to verify your answers. | | * engage in group activity and discuss ways to calculate the answers. * write down estimated answers * write down the various methods to calculate the answers * use calculators to verify the answers |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) | | |
| Give at least four exercises (problems) from the following resources | | |
| Sasol-Inzalo book | DBE Workbook 2015 | Textbook |
| 1. p. 62 No. 1c; No. 2f  2. p. 63 No. 3e ; No. 5 | p. 41 - 53 |  |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) | | |
| 1. **Emphasise that:**  * under addition and subtraction, learners must be able to use expanded notation method and/or column method. * calculations involving square roots and cube roots, learners must first estimate and then calculate the answers.  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 | Pg. 66 No. 1 (a) and (b); No. 3  Pg. 68 No. 1 (b) and (g) | | | |