**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: Common Fractions:** Equivalent forms and solving problems (Lesson 4) |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to :**   * Demonstrate understanding on calculations involving: * Common fractions where one denominator is a multiple of another * Common fraction and decimal fraction forms of the same number * Common fraction, decimal fraction and percentage forms of the same number * Solve problems in contexts involving common fractions, mixed numbers and percentages. |

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| 1. **RESOURCES:** | * Sasol – Inzalo book, DBE workbooks, textbook | |
| 1. **PRIOR KNOWLEDGE:** | * equivalent forms * place value * operations | |
| 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)   **Activity 1**  Express as:   1. a decimal 2. a percentage   **Note:** Learners have done this from grade 6. So, at this level, it is revision.  **Activity 2**  Convert:   1. 60% to a decimal? 2. to a percentage? 3. 0, 05 to a percentage? 4. 30 % to a fraction? | | |
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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities (Learners are expected to:)** |
| Group learners into small groups.  **Activity 1**  Convert the following to:   1. decimals 2. percentage   b)  c)  d) 2    **Activity 2**  What is 15 % of R600?  **Activity 3**  Solve : (leave your answer in its simplest form)   |  | | --- | | 1. Paulo and Sergio buy a pizza. Paulo eats of the pizza and Sergio eats two fifths. How much of the pizza is left over? | | 1. Jo spends hours doing homework. Of this, she spends 25 minutes on mathematics. What fraction of her homework time does she spend on mathematics? |  1. Thembisa has 10kg of potatoes. She sells a quarter to her aunt and a fifth to her sister. How many kilograms of potatoes does she have left? 2. Lesedi eats a quarter of a watermelon. What percentage of the watermelon is this? 3. Clive drinks 75% of the milk in a bottle. What fraction of the milk in the bottle has he drunk? 4. Greg used 0, 18 of the paint in a tin. If he uses half of the remaining amount the next time he paints, what fraction (in simplest form) is left over? 5. What percentage is R10, 00 of R200, 00? | | * do the activity in groups and quickly present their answers. * copy down the worked activities into their exercise books. * respond to probing questions. |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| **Activity 1**  Samke and Lebo are in different schools. At Samke’s school the year mark for mathematics was out of 80, and Samke got 60 out of 80. At Lebo’s school the year mark was out of 50 and Lebo got 40 out of 50.   1. What fraction of the total marks, in simplest form, did Lebo obtain at her school? 2. What percentage did Lebo and Samke get for Mathematics? 3. Who performed better, Samke or Lebo?   **Activity 2**   1. Calculate the percentage increase if the price of a bus ticket is increased from R60 to R84. 2. Calculate the percentage decrease it the price of petrol goes down from 20cents per litre to 18 cents per litre.   **Activity 3**  During a basketball game, John tried to score twelve times. Only four of his attempts were successful.   1. What fraction of his attempts was successful? 2. What percentage of his attempts was not successful?   **Activity 4**  Calculate the percentage increase in the price of milk if it increases from R8, 50 per litre to R9, 25 per litre.  **Activity 5**  Coffee goes on special at the supermarket. The price drops from R52, 99 per tin to R38, 99 per tin. What is the percentage decease in price? |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| 1. **Emphasise that**:  * the **simplest form** of a fraction has no common factors. For example, is equal to . This you get by dividing both the numerator and denominator by the common factor of 8. Emphasise that ≠ 3 * 0, 48; 48% and are different ways of representing (**48 hundredths**).  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 book, workbooks and/or textbooks for learners’ homework. The selected activities should address different cognitive levels.   Select problems from DBE workbooks (page 36 – 41) |