**MATHEMATICS LESSON PLAN**

**GRADE 7**

**TERM 1: January – March**

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

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| 1. **TOPIC: WHOLE NUMBERS: Solving problems (Lesson 8)** |

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| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to solve problem that involve whole number, percentages and decimal fraction in financial context such as:**  - profit, loss and discount  - budgets  - account |

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| 1. **RESOURCES:** | Sasol-Inzalo Book, DBE workbook 1, Textbooks |
| 1. **PRIOR KNOWLEDGE:** | * Multiplication and division of whole numbers * Sharing in a given ratio where the whole is given * Calculate percentage of a whole numbers * Decimal fractions |
| 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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| * **INTRODUCTION** (Suggested time: 10 Minutes)   Revise the concepts using Mental maths type questions to include:   * Rate and ratio * Properties of whole number * Percentage of a quantity |

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| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | |
| **Teaching activities** | **Learning activities**  (Learners are expected to: |
| Activity 1  Explain that in everyday life when you buy or sell goods you will encounter profit, loss, discount and VAT.  Example:  **PROFIT, LOSS AND DISCOUNT**  Profit is the money a business makes after it has covered all its costs, while loss it is when it cannot sell enough of its product to cover its costs. To calculate profit or loss, we compare the cost price with the selling price.  Positive means profit (different)  Negative means loss (different)  Work through the following activities with learners  Activity 1    The school shop sells a pack of exercise books and stationary for R60 each but it cost the shop R44 to buy the pack. In one month, the shop sell 178 packs.   |  |  | | --- | --- | | Read the problem and identify the retail and cost price | Selling price = R60  Cost price = R44 | | Calculate the profit or loss for a single item. The positive or negative answer means that we have a profit or loss | Profit (or loss) = selling price – cost price  = R60 – R44  = R16  The shop makes R16 profit per pack sold | | Multiply the answer by the number of items sold to get the total profit | R16 x 178 = R2 848  The school makes the profit of R 2 848 |   Shop often have specials or sales and then they sell their good at discounted price. It means the selling price of an item is reduced and this is called discount. Discount is normally given as a percentage.    Activity 2  To calculate the discounted price, we need to reduce the selling price by the discount value.  A shop sells ladies jeans at a discount of 15%. Pulane wants to buy a pair of jeans marked at R150. She only has a R100 note in her purse.   1. What is price of the pair jeans after the discount? 2. Will she be able to buy the jeans/ if she can buy the jeans, how much change will she get? If she cannot buy the jeans, how much more money does she need before she can do so.   Solution:    Discounted price for the pair of jeans = R150 – R22,50  = R127,50  b) No, Pulane needs R27,50 to buy the pair of jeans.  Activity 3   |  |  |  |  | | --- | --- | --- | --- | | **Cost Price** | **Selling Price** | **Profit or Loss** | **Value** | | R48 | R95 |  |  | |  | R384 | Profit | R195 | | R877 | R788 |  |  | | R547 |  | Loss | R12 | | R265 | R303 |  |  | |  | R1 680 | Profit | R769 |   **ACCOUNTS**  Explain that many shop offer the sale of their products on account. An account is a contract between a customer and a business. It allows the customer to make purchases but to delay the payment a latter day, usually the end of each month.  If the account is not paid at the end of each month, the business will charge interest on the outstanding amount. This is like a loan and will charge interest if the loan is not paid back at the end of the month.  Activity 4  BRING ALONG AN EXAMPLE OF AN ACCOUNT. Show learners the features of the account.  Ask the following questions.   1. What is the date o when the account was issued? 2. What is the last date on which the must be paid? 3. What is the amount owed/ credit available on your account? 4. How much is paid per month? 5. What method is used to do payment, for an example: Can you pay by debit order, cheque or can you transfer money? Can you pay at the pay-point such as the post office or a supermarket?   **BUDGET**  A plan how to pay your expenses. A successful budget is one where the expenses are covered by your income. Example of a budget:   |  |  |  | | --- | --- | --- | | Budget per month | | | |  | Expense | Income | | Salary |  | R9 000 | | Rent | R2 500 |  | | Food | R1 500 |  | | DSTV | R549 |  | | Car payment | R855 |  | | Car fuel | R650 |  | | Pension fund | R900 |  | | Entertainment | R1 000 |  | |  |  |  | | Difference |  | R1 046 | |  |  |  |   Activity 5  Create a budget for your own household. Write a list of expenses that you think the household has to pay per month. Speak to the adult at home to help you complete your list, but fill in the numbers on your own as best you can. Bring the budget | * discuss in pairs and give their example * Work in pairs, give and discuss the answer * Listen, ask questions and work out their examples * Work, work in pairs and discuss the account      * complete the budget at home |

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| 1. **CLASSWORK** (Suggested time: 15 minutes |
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| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK (Suggested time: 5 minutes)** |
| 1. Emphasis:  * the understanding of the key words like profit, loss and discount.  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 Homework**:   |  |  |  | | --- | --- | --- | | Sasol-Inzalo Book | DBE Workbook | Textbook | | Pg 50 No 5 |  |  | |