**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:** Calculations using fractions(Lesson 1) |
| 1. **CONCEPTS & SKILLS TO BE ACHIEVED:**   **By the end of the lesson, learners should be able to perform** calculations using fractions involving all four operations with common fractions and mixed numbers**.** |

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| 1. **RESOURCES:** | Sasol-Inzalo book, DBE workbook, textbooks | |
| 1. **PRIOR KNOWLEDGE:** | * Addition and subtraction of common fractions, including mixed numbers. * Conversion of mixed numbers to common fractions. * Finding the LCM of numbers * Equivalent 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. | | |
| 1. **INTRODUCTION** (Suggested time: 10 Minutes) | | |
| Whole class teaching  **Activity 1**  List the multiples of 2 and 4 less than 40, and then identify the common multiples and LCM.   * Multiples of 2 less than 40: 2; 4; 6; **8**; 10; 12; 14; 16; 18; **20**; 22; 24; 26; 28; 30; **32**; 34; 36; 38; 40 * Multiples of 4 less than 40: 4; **8**; 12; 16; **20**; 24; 28; **32**; 34; 38 * Common multiples of 2 and 4: **8; 20; 32**     **Activity 2**  Use 5revise the following key words done in Grade 8 and apply them in context where possible:   * *Numerator:* the whole number above the fraction bar/line. * *Denominator:* the whole number below the fraction bar/line. * *Proper fractions:* common fractions with the numerator smaller than the denominator. * *Improper fractions:* common fractions with the numerator bigger than the denominator. * *Mixed numbers:* a number comprising of a whole number and a proper fraction. * *Equivalent fractions:* fractions that have the same value   **Note:**  is correctly pronounced three quarters and not three over four and is correctly pronounced seven hundredths and not seven over hundred. This will also assist when you deal with place value. | | |
| 1. **LESSON PRESENTATION/DEVELOPMENT** (Suggested time: 20 minutes) | | |
| **Teaching activities** | | **Learning activities (Learners are expected to:)** |
| Calculate:  **Activity 1:** (same denominators)      1      = =  **Note:**   * to add and subtract mixed numbers, you can work with the whole number parts and the fraction parts separately as it is done in (b) above. * the fractions in (b) above are the same digits but swapped around. In order to do the subtraction of mixed numbers above, we need to “borrow” a unit from 13 because we cannot subtract from.   **Activity 2:** (different denominators)   1. multiples of 12 =   multiples of 4 =  LCM = 12    **Note**: we multiplied the second fraction by to get twelfths.  Multiples of 5  Multiples of 6  LCM = 30 : ×      2  2 | | * be engaged in calculations throughout the lesson. * answer probing questions asked by the teacher. * take down notes where necessary guided by the teacher. |
| or            2  **Activity 3:** (improper fractions)  Calculate:   |  |  | | --- | --- | | **Method 1** | **Method 2** | |  |  |   **Note:** Give them practice exercises, and analyse the emerging errors that may become misconceptions and address them immediately.  Calculate:   |  |  |  | | --- | --- | --- | |  | 2) |  | |  |  |  | | |  |

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| 1. **CLASSWORK** (Suggested time: 15 minutes) |
| Calculate:    2. 4 6 3. 15 7 |
| 1. **CONSOLIDATION/CONCLUSION & HOMEWORK** (Suggested time: 5 minutes) |
| 1. **Emphasise that**:  * addition of numerators and denominators is incorrect e.g. * using column method to add or subtract fraction * when adding or subtracting fractions they should ensure that the denominators are the same.  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. |
| **HOMEWORK**  Calculate:   1. 4 + 3 2. 3 − 3. 6 − 4 + 1   Select activities from Sasol-Inzalo book page 46. |