FIRST TERM
WEEKLY LESSON NOTES
WEEK 8

Week Ending: 24-11-2023	**DAY:**	**Subject:** Mathematics	
Duration: 100MINS		**Strand:** Number	
Class: B9	**Class Size:**	**Sub Strand:** Fractions, Decimals and Percentages	
Content Standard: B9.1.3.1 Apply the understanding of operations on fractions to solve problems involving fractions of given quantities and round the results to given decimal and significant places	**Indicator:** B9.1.3.1.1 Review fractions and solve problems involving basic operations on fractions	**Lesson:** 1 of 2	
Performance Indicator: Learners can solve problems involving basic operations on fractions.	**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)		
References: Mathematics Curriculum Pg. 170			
New words: Fractions, Equivalent fractions, Simplest form, Mixed number			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Begin with a "Fraction Challenge" activity. Present learners with a word problem involving fractions and ask them to solve it individually. Afterward, have them share their solutions and thought processes. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Conduct a brief review of the concept of fractions, ensuring learners understand the terminology and basic principles. Use fraction manipulatives to demonstrate fractional parts and their representation. Provide learners with a visual representation of a rectangle divided into squares. Ask them to shade a specific fraction of the squares, both with and without visual aids. Introduce the concept of equivalent fractions. Have learners practice writing fractions as equivalent fractions with different numerators and denominators. Example: *Let's take the fraction 1/2 and create an equivalent fraction by multiplying both the numerator and denominator by the same number.* *Multiply by 2: (1/2) * (2/2) = 2/4* *Multiply by 3: (1/2) * (3/3) = 3/6* *Multiply by 4: (1/2) * (4/4) = 4/8*	Fraction manipulatives

	Discuss expressing fractions in their simplest form. Provide examples and ask learners to simplify fractions by finding the greatest common factor. Example 1: *Simplify 4/8.* *Find the GCF of 4 and 8, which is 4.* *Divide both the numerator and denominator by 4: (4/4) / (8/4) = 1/2.* *So, 4/8 simplified to its simplest form is 1/2.* Example 2: Simplify 15/20. *Find the prime factorization of both 15 and 20:* *15 = 3 * 5* *20 = 2 * 2 * 5* *Identify the common prime factor, which is 5.* *Divide both the numerator and denominator by 5: (15/5) / (20/5) = 3/4.* *So, 15/20 simplified to its simplest form is 3/4.* Explain the concepts of mixed numbers and improper fractions. Show how to convert between the two forms and practice with examples. Example 1: 5/3 *In the fraction 5/3, the numerator (5) is greater than the denominator (3).* *This means you have 5 equal parts of a whole divided into 3 equal parts each.* *It can be represented as a mixed number: 1 2/3, where 1 is the whole part, and 2/3 represents the remaining portion.* Example 2: $2\frac{1}{4}$ *In the mixed number $2\frac{1}{4}$, "2" is the whole number, and "1/4" is the proper fraction.* *This means you have 2 whole parts and an additional 1/4 part of a whole.* Example 3: Convert $\frac{7}{2}$ to a Mixed Number *7 divided by 2 equals 3 with a remainder of 1. So, 7/2 is equal to 3 1/2.* Example 4: Convert $4\frac{3}{5}$ to an Improper Fraction *First, multiply the whole number (4) by the denominator (5): 4 * 5 = 20.* *Then, add the numerator (3) to the result: 20 + 3 = 23.* *So, 4 3/5 is equal to the improper fraction 23/5.* Distribute a worksheet with fraction problems that involve addition, subtraction, multiplication, or division of fractions.	

	Encourage learners to solve the problems individually and discuss their approaches. <u>Assessment</u> 1. Convert the fraction 7/4 into a mixed number. 2. Solve the following problem: If you have 3/5 of a pizza, and your friend has 1/4 of the same pizza, how much pizza do you have together?	
PHASE 3: **REFLECTION**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	

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Performance Indicator: Learners can review the basic operations on fractions and solve problems involving addition, subtraction, multiplication, and division of fractions.		**Core Competencies:** Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 170			
New words: Fractions, Addition, Subtraction, Multiplication, Division			

Phase/Duration	Learners Activities	Resources
PHASE 1: **STARTER**	Begin with a "Fraction Riddle" activity. Present learners with a riddle that involves fractions. Encourage them to work in pairs or small groups to solve the riddle. Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Conduct a brief review of the basic operations on fractions, including addition, subtraction, multiplication, and division. Use fraction manipulatives to demonstrate the operations with visual aids. Provide examples of addition and subtraction of fractions. Ask learners to work out answers to problems involving these operations. Example 1: Add 1/3 + 1/4 Step 1: *Find a common denominator, which in this case is 12 because both 3 and 4 can be evenly divided by 12.* *1/3 = 4/12 (multiply both numerator and denominator by 4)* *1/4 = 3/12 (multiply both numerator and denominator by 3)* Step 2: *Now that the fractions have a common denominator, add the numerators:* *4/12 + 3/12 = 7/12* *So, 1/3 + 1/4 = 7/12.* Example 2: Subtract 5/6 - 1/3	Fraction manipulatives

	Step 1: Find a common denominator, which is 6 because both fractions already have denominators of 6. Step 2: *Subtract the numerators:* *5/6 - 1/3 = (5 - 2)/6 = 3/6* Step 3: *Simplify the result by dividing both the numerator and denominator by their greatest common factor (GCF), which is 3 in this case:* *3/6 ÷ 3/3 = 1/2* *So, 5/6 - 1/3 = 1/2.* Explain the concepts of multiplication and division of fractions. Provide examples and encourage learners to work out answers to problems involving these operations. Example 1: Multiply 2/3 by 3/5 *Numerator: 2 * 3 = 6* *Denominator: 3 * 5 = 15* *So, 2/3 * 3/5 = 6/15.* Example 2: Divide 2/3 by 4/5 *Dividing by 4/5 is the same as multiplying by 5/4 (the reciprocal of 4/5).* *Now, we can multiply the fractions:* *Numerator: 2/3 * 5/4 = (2 * 5) / (3 * 4) = 10/12* Distribute a worksheet with fraction problems that involve addition, subtraction, multiplication, and division. Encourage learners to solve the problems individually or in pairs, discussing their approaches. <u>Assessment</u> 1. Add the fractions 3/4 and 1/5. 2. Subtract the fractions 2/3 and 1/6. 3. Multiply the fractions 1/2 and 2/3. 4. Divide the fractions 5/6 and 1/4.	
PHASE 3: **REFLECTION**	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson.	