SECOND TERM
WEEKLY LESSON NOTES
WEEK 1

Week Ending: 06-04-2023	DAY:		Subject: Mathematics	
Duration: 60MINS			Strand: Number	
Class: B8		Class Size:	Sub Strand: Fractions	
Content Standard: B8.1.3.1 Apply the understanding of operation on fractions to solve problems involving fractions of given quantities and round the results to given decimal and significant places.		Indicator: B8.1.3.1.1 Review fractions and solve problems involving basic operations on fractions		Lesson: 1 of 1
Performance Indicator: Learners can review fractions and solve problems involving basic operations on fractions			Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)	
References: Mathematics Curriculum Pg. 102				

Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	Engage learners in simple brain teaser. Example: I have GH₵200, and I want to give half of it to my son for transport. How much will I give to my son? Learners in pairs discuss the question and find the answer. Ask them to share their answers with the class. Share performance indicators and introduce the lesson.	
PHASE 2: NEW LEARNING	Review the concept of fractions. Engage learners to shade given fraction of squares in a shape or find the fraction shaded in the shape: i.e. shade $\frac{3}{4}$ of the rectangle. Learners in their groups shade given fractions of squares. Write down $\frac{2}{3}$ on the board and guide learners to find 3 equivalent fractions. So $\frac{2}{3} = \frac{4}{6}, \frac{6}{9}, \frac{8}{12}$ Demonstrate how to express the fraction $\frac{6}{10}$ in its simplest form. Find a common a factor that can divide the numerator and denominator without a reminder. So we can use 2 $$\frac{\cancel{6}}{\cancel{10}} = \frac{3}{5}$$ Have learners express the following fractions in its simplest form.	Counters, bundle and loose straws base ten cut square, Bundle of sticks

	1. $\frac{6}{10}$ 4. $\frac{4}{12}$ 2. $\frac{12}{18}$ 5. $\frac{8}{14}$ 3. $\frac{16}{20}$ Guide learners to express fractions as a mixed number. Example $\frac{12}{5} = 2\frac{2}{5}$	
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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PHASE 1: **STARTER**	Let learners determine the missing number in the box 	1		2		3
5		7		9	Answer: 43 | 15		18		21
35		39		?	 Share performance indicators and introduce the lesson.	
PHASE 2: **NEW LEARNING**	Review the basic operations on fractions. Write an addition problem on the board $\frac{4}{13} + \frac{2}{13}$ Ask learners to observe the problems carefully. Guide them to note that they have the same denominator but different numerators. Learners in pairs solve the problem and present their answers to the class. When the fractions have the same denominator, we add the numerators and write the sum all over the same denominator Example: $\frac{4}{13} + \frac{2}{13} = \frac{4+2}{13} = \frac{6}{13}$ Write two more examples on the board and let learners work in pairs. 1. $\frac{9}{15} + \frac{6}{15}$ 2. $\frac{4}{5} + \frac{3}{5}$ Write on the board. $\frac{3}{4} + \frac{1}{8}$. Guide learners to add fractions with different denominators. To subtract fractions with different denominators we need to find a common denominator, or a denominator that is the same. First we need to find the LCM of the two numbers in the denominators. The lowest number that is divisible by both numbers is the LCM.	Counters, bundle and loose straws base ten cut square, Bundle of sticks

	We must change the numerators and denominators before we can add the fractions. The new denominator will be the LCM, 8. We will rewrite each fraction as an equivalent fraction with denominator 8.	
	Solve the problem on the board: $\frac{3}{4} + \frac{1}{8} = \frac{6}{8} + \frac{1}{8} = \frac{6+1}{8} = \frac{7}{8}$	
	Learners subtract the following fractions and simplify their answers. 1. $\frac{4}{5} - \frac{3}{5}$ 2. $\frac{6}{7} - \frac{4}{7}$ 3. $\frac{3}{4} - \frac{3}{4}$ 4. $\frac{2}{4} - \frac{2}{3}$ 5. $\frac{3}{4} - \frac{1}{3}$	
	Multiplying a whole number by a fraction, e.g. $5 \times \frac{2}{3}$ or finding five two-thirds means $\frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} = \frac{10}{3} = 3\frac{2}{3}$ To multiply a whole number by a mixed fraction (e.g. $3 \times 2\frac{2}{3}$) one can multiply the whole number by the whole number and then whole number by the fraction and add the products or change the mixed fraction to improper fraction and multiply; i.e. $3 \times 2\frac{2}{3} = (3\times2) + (3 \times \frac{2}{3})$ $= 6 + \frac{2}{3} + \frac{2}{3} + \frac{2}{3} = 6\frac{6}{3}$ To multiply a whole number by a fraction (e.g. $3 \times 2\frac{2}{3}$) first change all into common fractions, then multiply the numerators separately and multiply the denominators separately and simplify; i.e. $3 \times 2\frac{2}{3} = \frac{3}{1} \times \frac{8}{3} = \frac{3 \, X \, 8}{1 \, X \, 3} = 3\frac{24}{3} = 8$ Multiplying a fraction by a whole number the multiplication is interpreted as "of"; e.g. $\frac{2}{3} \times 5$ means shade $\frac{2}{3} \, of \, 5$; i.e. finding two-thirds of each of five objects; i.e. $\frac{2}{3} \times 5$ can be illustrated by shading $\frac{2}{3} \, of \, 5$ sheets of paper, which leads to the shading of 10 thirds, $\frac{2}{3} \times 5 = \frac{2}{3} \, of \, 5 = 10 \, (\frac{1}{3}) = \frac{10}{3} = 3\frac{1}{3}$ To multiply a mixed fraction by a whole number (e.g. $4\frac{4}{5} \times 5$) First change all into common fractions, then multiply the numerators separately and multiply the denominators separately and simplify; i.e. $4\frac{4}{5} \times 5 = \frac{24}{5} \times \frac{5}{1} = \frac{120}{5} = \frac{24}{1} = 24$	
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.	