

FIRST TERM

WEEKLY LESSON NOTES

WEEK I

Week Ending: 06-10-2023	DAY:	Subject: Mathematics
Duration: 60MINS		Strand: Number
Class: B9	Class Size:	Sub Strand: Number and Numeration System
Content Standard: B9.1.1.1 Apply the understanding of place value in solving real life problems involving integers of any size, rounding this to given decimal places and significant figures		Indicator: B9.1.1.1.1 Express integers to a given number of significant and decimal places
		Lesson: 1 of 1
Performance Indicator: Learners can express integers to a given number of significant and decimal places		Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)
References: Mathematics Curriculum Pg. 165		
New words: Integers, Significant figures, Decimal places, Precision		
Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	<p>Present students with a real-world scenario: "Imagine you're a scientist measuring the length of a newly discovered insect, and you need to be very precise. How would you ensure your measurements are both accurate and precise?"</p> <p>Allow students to discuss.</p> <p>Share performance indicators and introduce the lesson.</p>	
PHASE 2: NEW LEARNING	<p>Introduce the concept of significant figures.</p> <p>Work through a series of examples demonstrating how to express integers to a set number of significant figures.</p> <p>E.g.1. Express integers to a number of significant figures.</p> <p>(i) 857,386,321 -five significant figures -four significant figures -three significant figures.</p> <p>(i) <i>To Five Significant Figures:</i> Look at the first 6 digits of the number: 857,386 Since the sixth digit (8) is greater than or equal to 5, we round up the fifth digit (3) by 1. Result: 857,390,000</p> <p>(ii) <i>To Four Significant Figures:</i> Look at the first 5 digits of the number: 857,38 Since the fifth digit (8) is greater than or equal to 5, we round up the fourth digit (7) by 1. Result: 857,400,000</p> <p>(iii) <i>To Three Significant Figures:</i></p>	Counters, bundle and loose straws base ten cut square, Bundle of sticks

Look at the first 4 digits of the number: 857,3
Since the fourth digit (7) is greater than or equal to 5, we round up the third digit (5) by 1.
Result: 858,000,000

Allow students to practice with various integers, working in pairs or small groups.

Explain the importance of expressing decimal numbers to a specific number of decimal places, especially in scientific or financial contexts.

Have students practice expressing various decimal numbers to a set number of decimal places, encouraging peer checks for accuracy.

E.g.2. Express decimal numbers to a given number of decimal places.
(i) Write 98745.9674 correct to -three decimal places -two decimal places -one decimal place

(i) To Three Decimal Places:

Look at the number up to the fourth decimal place: 98745.9674
Since the fourth decimal digit (4) is less than 5, we keep the third decimal digit (7) as it is.
Result: 98745.967

(ii) To Two Decimal Places:

Look at the number up to the third decimal place: 98745.967
Since the third decimal digit (7) is greater than or equal to 5, we round up the second decimal digit (6) by 1.
Result: 98745.97

(iii) To One Decimal Place:

Look at the number up to the second decimal place: 98745.97
Since the second decimal digit (7) is greater than or equal to 5, we round up the first decimal digit (9) by 1.
Result: 98746.0

Assessment

1. Given the number: 12345.6789

- (i) Write it correct to:
- three decimal places
 - two decimal places
 - one decimal place

2. Given the number: 54321.2345

- (i) Write it correct to:
- three decimal places
 - two decimal places
 - one decimal place

3. Given the number: 6789.0123

- (i) Write it correct to:
- three decimal places
 - two decimal places
 - one decimal place

	4. Given the number: 4321.0987 (i) Write it correct to: - three decimal places - two decimal places - one decimal place	
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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Class: B9	Class Size:	Sub Strand: Number and Numeration System
Content Standard: B9.1.1.1 Apply the understanding of place value in solving real life problems involving integers of any size, rounding this to given decimal places and significant figures		Indicator: B9.1.1.1.2. Use knowledge and understanding of place value to solve real life problems
		Lesson: 1 of 1
Performance Indicator: Learners can understand of place value to solve real life problems		Core Competencies: Communication and Collaboration (CC) Critical Thinking and Problem solving (CP)
References: Mathematics Curriculum Pg. 165		
New words: Place Value, Standard Form, Real-life Problem, Decimal Point		
Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	<p>Begin with a relatable scenario: "Imagine you're collecting recyclable bottles for a school fundraiser. Each class has a different number of bottles, and you need to total them.</p> <p>How would you do that? Think about the place values when adding the numbers." Allow students to briefly discuss.</p> <p>Share performance indicators and introduce the lesson.</p>	
PHASE 2: NEW LEARNING	<p>Divide students into small groups and distribute pre-made cards, each containing a unique real-life situation (e.g., shopping scenarios with item costs, trip planning with distances).</p> <p>Instruct each group to analyze their given situation and craft a mathematical problem that requires understanding of place value to solve.</p> <p>After formulating their problems, groups will exchange their scenarios with another group to solve.</p> <p>E.g.1. (I) I am a 6-digit number. My first digit is 5 more than the last digit, but 2 less than my second digit. My second digit is the third multiple of 3, while my fourth digit is the second multiple of 3. My third digit is the quotient when the fourth digit is divided by my last digit. However, my fourth and fifth digits are consecutive numbers. What number am I?</p> <p>Solution Let the 6-digit number be represented as ABCDEF.</p> <ol style="list-style-type: none"> "My first digit is 5 more than the last digit, but 2 less than my second digit." $A = F + 5$ and $A = B - 2$ "My second digit is the third multiple of 3" $B = 3 * 3 = 9$ "My fourth digit is the second multiple of 3." $D = 3 * 2 = 6$ 	Counters, bundle and loose straws base ten cut square, Bundle of sticks

	<p>4. "My third digit is the quotient when the fourth digit is divided by my last digit." $C = D / F$ $C = 6 / F$</p> <p>5. "My fourth and fifth digits are consecutive numbers." $E = D + 1$ $E = 6 + 1 = 7$</p> <p>Let's solve for A and F using the information from step 1: Given $B = 9$, $A = 9 - 2 = 7$</p> <p>$A = F + 5$ So, $F = 7 - 5 = 2$</p> <p>Plugging this into $C = 6 / F$: $C = 6 / 2 = 3$</p> <p>So the number is 793652.</p> <p>Once solved, answers should be written in standard form. Groups present both the problem and solution to the class for discussion.</p> <p>Example: So, the number is $793652 = 7.93652 \times 10^5$</p> <p><u>Assessment</u></p> <p>I am in a library looking for a book, and I remember it's in a 4-digit aisle number. The first digit is thrice the last digit but 2 less than the second digit. The second digit is the third multiple of 2. The third digit is the quotient when the second digit is divided by the first. In which aisle should I search for my book?</p> <p>I have a safe with a 6-digit code. The first digit is twice the third digit but 1 less than the fifth digit. The third digit is half the last digit. The fourth digit is the third multiple of 2. The fifth digit is the first multiple of 5, and the second digit is the fourth digit minus 1. Can you decode the safe for me?</p> <p>I am at a train station with a platform number that's a 5-digit number. The first digit is one more than the third digit and two less than the fourth digit. The third digit is twice the last digit. The fourth digit is the first multiple of 4, and the second digit is half the fourth digit. At which platform am I waiting?</p>	
<p>PHASE 3: REFLECTION</p>	<p>Emphasize the real-world applications of place value. Understanding and applying place value helps ensure accuracy, especially in situations involving money, measurements, or data analysis.</p> <p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>	