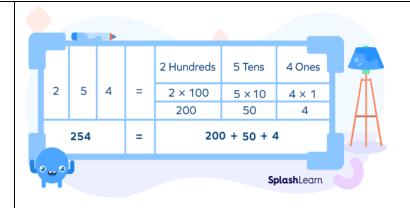📞 *or* 📲 *0248043888*

*https://www.TeachersAvenue.net*
*https://TrendingGhana.net*
*https://www.mcgregorinriis.com*

## BASIC 8

## WEEKLY LESSON PLAN – WEEK 3

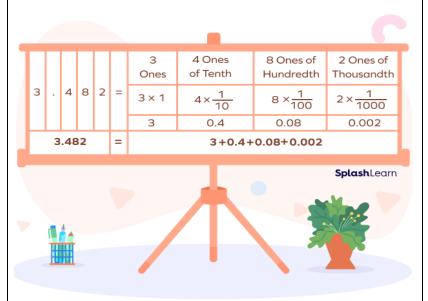| Strand: | Number | | Sub-Strand: | | Number Operations | |
|---|---|---|---|---|---|---|
| **Content Standard:** | B8.1.2.2 Apply the understanding of the addition, subtraction, multiplication and division of (i) whole numbers within 10,000, and (ii) decimals up to 1/1000, to solve problems and round answers to given decimal places | | | | | |
| **Indicator (s)** | B8.1.2.2.1 Add and subtract up to four-digit numbers.<br><br>B8.1.2.2.2 Multiply or divide multi-digit numbers by 1- and 2- digit numbers<br><br>B8.1.2.2.3. Create and solve story problems involving decimals on the four basic operations. | | | **Performance Indicator:** Learners brainstorm to calculate word problems involving decimals. | | |
| **Week Ending** | 14-07-2023 | | | | | |
| **Class** | B.S.8 | | **Class Size:** | | **Duration:** | |
| **Subject** | Mathematics | | | | | |
| **Reference** | Mathematics Curriculum, Teachers Resource Pack, Learners Resource Pack, Textbook. | | | | | |
| **Teaching / Learning Resources** | Charts, Poster, Pictures. | | | **Core Competencies:** | • Analyze and make distinct judgment about viewpoints expressed in an argument | |
| **DAYS** | **PHASE 1 : STARTER** | | **PHASE 2:    MAIN** | | | **PHASE 3: REFLECTION** |
| **MONDAY** | Assist learners to identify the various methods of adding and subtracting four-digit numbers. | | 1. Demonstrate on how to use partitioning or expanded form to add and subtract whole and decimal numbers.<br>2. Assist Learners to use partitioning or expanded form to add and subtract whole and decimal numbers.<br>3. Learners brainstorm to use place value system to add and subtract whole and decimal numbers.<br>4. Assist Learners to use the area model or Expand and Box method to multiply and divide numbers by 1- and 2- digit numbers efficiently.<br><br>**Expanded Form**<br><br>In the expanded form. We break up a number according to its place value and expand it to show the value of each digit.<br><br>For example, the expanded form of 254 is given. | | | Learners in small groups to discuss and multiply whole numbers using the vertical place value method.<br><br>**Exercise;**<br><br>1. What number is three thousand and six more than four thousand, six hundred and ninety-five? |

**Expanded Form of Decimal Numbers**

The expanded form with decimals is the mathematical expression to show the sum of the values of each digit in the number. Writing decimals in an expanded form simply means writing each number according to its place value. Before the decimal point, the expanded form is the same as it is for whole numbers. After the decimal point, it is different.

For example, the number 3.482 in its expanded form is written as:



The expanded form of the number 3.482 is:

=3+ 4/10 + 8/100 + 42/1000 ,or

= 3 + 0.4 + 0.08 +0.002

**Addition of 4 Digit Number**
While adding any number, the basic rule of addition must be followed, which is:

2. 2. Subtract 6725 from 8053.
3. 3. What number is four thousand, three hundred and forty more than five thousand and seventy-six?
4. 4. Calculate the difference between three thousand, two hundred and twelve, and two thousand and forty-six.

Add £23.71 to £78.46

| | | | |
|---|---|---|---|
| | | Always start adding from the right side, which means the unit digit to the unit digit<br><br>If we add two digits and get a two-digit number then the unit digit is written down, and then the tens digit is carried forward and added to the next digits. | |
| **TUESDAY** | Demonstrate on multiplying 2-digit numbers by 1-digit numbers. | 1. Assist Learners to use the area model or Expand and Box method to multiply 2-digit numbers by 1-digit numbers.<br>2. Learners brainstorm to divide 2-digit numbers by 1-digit numbers using Expand and Box method.<br>3. Discuss with Learners on how to multiply whole numbers using the vertical place value method.<br>4. Assist Learners to use the distributive property to multiply whole numbers.<br><br>**Multiplying 2-digit numbers by 1-digit numbers**<br><br>1. Write the problem with the larger number on top. Line the numbers up by place value.<br>2. Multiply the bottom number by each digit of the top number. Start with the ones.<br>3. Next, multiply the tens.<br><br>**Box Method Formula & Use**<br><br>To use the box method for multiplication, there are a few steps that must be followed. Those steps include:<br><br>1. Write both of your numbers in **expanded form**<br>2. Draw your box based on the number of digits in each number<br>3. Multiply the numbers that correspond to each row and column in your box<br>4. Add the numbers inside the box to get the final answer.<br><br>The very first step to using the box method for multiplication is to write each of the numbers in expanded form. To write numbers in expanded form means to write each number separated by the different ones, tens, hundreds, etc. places; added together. Let's take an example.<br><br>**Expanded Form Example 1**<br><br>Write 34 in expanded form.<br><br>To write the number 34 in expanded form, first, determine what place the very first digit is in. For this example, the very first digit is 3, and it is in the tens place. This means we expand the beginning of the number out to 30. Next, the second or last digit is 4, and it is in one's place. This means it will remain just 4. Lastly, join those | Learners in small groups to discuss and solve examples of multiplying whole numbers using the vertical place value method.<br><br>**Exercise;**<br><br>Using the distributive property, multiply the following;<br><br>1. $(y-8)(y+6)$<br>2. $(x-2)(x+4)$<br>3. $(2a+3)(3a-1)$<br>4. $(4x+2)(2x-3)$<br>5. $(5x-y)(2x-7)$ |

two expanded numbers to gather using a plus sign to get the official expanded form as 30+4

**Expanded Form Example 2**

Write 5344 in expanded form.

To write the number 5344 in expanded form, first, determine what place the very first digit is in. For this example, the very first digit is 5, and it is in the thousand's place. This means we can write the expansions as 5000. Next, we need to expand the second digit, 3. This digit is in the hundreds place, giving an expansion of 300. Next is the third digit, 4, in the tens place. This expansion can be written as 40. Finally, we have the last digit, 4, in the one's places. Since it is in the one's place, it will remain as 4. Now, using a plus sign in between each of the expanded numbers, we get the full expanded form as 5000+300+40+4

The next step in using the box method for multiplication is to set up the required box. The size of this box is determined by the number of digits in both of the numbers that are being multiplied. Let's take an example.

**How to Divide a 2-digit Number by a 1-Digit Number Without a Remainder**

**Step 1:** Determine which number is the divisor and which number is the dividend. The 1-digit number is the divisor and the 2-digit number is the dividend.

**Step 2:** If the first digit of the dividend is equal to or larger than the divisor, divide the divisor into that number.

**Step 3**: Multiply the quotient times the divisor, subtract this number from the dividend and proceed to divide into the second digit.

**Step 4:** If the first digit of the dividend is less than the divisor, divide the divisor into both digits of the dividend to find the quotient.

**Step 5**: Multiply the quotient times the divisor to get a zero remainder.

| **THURSDAY** **20-04-2023** | Demonstrate on solving multistep word problems involving decimals | 1. Discuss with Learners on examples of word problems involving decimals. 2. Assist Learners to solve word problems involving decimals. 3. Demonstrate on solving word problems of data presented in a table. **Example 1:** Joey, Keith, and Eli have a combined height of 77 meters. If Joey is 2.312.31 meters tall and Eli is 2.62.6 meters tall, how tall is Keith? | Learners brainstorm to solve more examples of word problems presented in a table. |

First, rewrite all the numbers with the same number of decimal places.

Joey, Keith, and Eli have a combined height of 7.007.00 meters. If Joey is 2.312.31 meters tall and Eli is 2.602.60 meters tall, how tall is Keith?
Now write the equation.

$2.31+2.60+k=7.00$ where k is the height of Keith in meters.
Combine like terms.

$4.91+k=7.00$
Subtract 4.914.91 from each side.
$k=2.09$
Therefore, Keith is 2.092.09 meters tall

**Example 2:**

James works at an Indian sweet shop. He needs to fill boxes with 0.30.3 kilograms of coconut barfi each. If he has 88 kilograms of coconut barfi, how many boxes can he fill?
This is a division problem: we need to find how many times 0.30.3 kilograms goes into 88 kilograms.
$8÷0.3=26.6^-8÷0.3=26.6^-$
Since the question asks for the number of boxes he can *fill* , the decimal part of the answer can be ignored. James can fill 2626 boxes, with a little bit of barfi left over.

*Name of Teacher:*            *School:*            *District:*