Grade: 2

Lessons: Birds come, Birds go.

Topic: Addition and Subtraction

Activity 1: Using Ones and Tens cards.

Duration: 40 mins

Learning Objective:

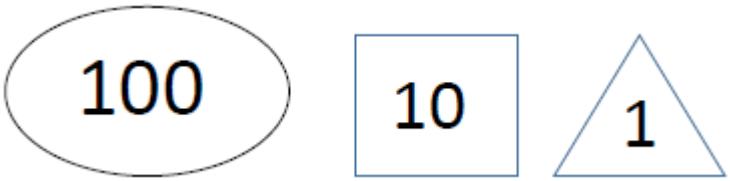
Learning Addition and Subtraction of single- and double-digit numbers.

Purpose:

Introduction of place value in both addition and carry-over in addition, subtraction and carry-over in subtraction through the use of place-value cards. This activity is aimed to address those students who get confused about addition and subtraction without hands on.

Resources Needed:

- Ones and Tens number cards.



Addition:

For this activity, please refer to pages 113 to 117.

Step 1: Ask the students to represent the two given numbers with the cards that has been provided to them. As for example, if the given numbers are 26 and 15, then the students have to represent 26 with 2 tens cards and 6 ones cards while representing 15 as 1 tens card and 5 ones cards.

Step 2: After the first step, ask the students to add all the ones first and then add all the tens.

Step 3: If the added sum has 10 ones card, then ask the students to replace that with 1 tens card (which represents a carry-over).

Step 4: The resultant sum gives the answer.

Step 5: Ask the students to write in their notebook or board or floor in parallel to get an abstract understanding of addition.

Subtraction:

Step 1: Ask the students to represent the first number with the number cards—each number separately. As for example, if the given numbers are 26 and 15, then they have to represent 26 with 2 tens cards and 6 ones cards.

Step 2: After the first step, ask the students to take away the quantity of ones and tens from the first number based on the second number.

Step 3: If the units place of the first number is lesser than the second number, then replace 1 tens card with 10 ones card (which represents a borrow).

Step 4: The resultant number gives the answer.

Step 5: Ask the student to write in their notebook or board or floor in parallel to get an abstract understanding of subtraction.

Continuous Assessment:

For the continuous assessment, the teacher can observe the students to see whether they are using the concept of tens cards and ones cards correctly. The teacher can also capture a few instances of their students performing this activity. As for example, if the given problem is 23 + 39, when adding the units digits, 3 and 9, a student may take 2 as the carry-over instead of taking carry-over as 1. Likewise, many other observations can be captured.

Some of the assessment can be addressed through the following questions:

1. How will you represent and add the numbers 36 and 25? How many tens are there in the answer?
2. How many ones are there when we add 56 and 34?
3. How may ten blocks will be needed to represent 47?

Activity 2: Using *Ganithmala* and beads.

Duration: 20 mins

Learning Objectives:

- Addressing open-ended questions.
- Finding various possibilities pertaining to addition and subtraction.

Purpose:

This activity can be used for addressing the difficulties that are faced by students while answering the open-ended questions given on page 119. The students can use the following resources as a hands-on material for better understanding.

Resources needed:

- *Ganithmala*

- Beads.

Addition using *Ganithmala*:

Example sum: __ + __ = 67

Step 1: Count the beads and select the number 67 using *ganithmala*.

Step 2: Ask the students to separate the beads line at any point between 67. Clips can be used to separate them.

Step 3: Ask the students to write the number of beads on the left side of the clip separately and on the right side of the clip separately. This represents the addends (number to be added), e.g., 67 can be separated into 34 and 33.

Step 4: Repeat the above three steps to find different combinations of addends.

Subtraction using Beads:

Example sum: __ - __ = 30

Step 1: A random number of beads are taken in a box.

Step 2: The students are asked to take any number of beads as they like.

Step 3: The students are then asked to count the number of beads they took and write it as the **first subtrahend** (first number of subtraction) e.g., 50.

Step 4: The difference number is said to the students (here 30). Then ask them to count the number of beads to the difference (30).

Step 5: Ask the students to count the number of beads that have been taken away to make the difference (30), which is the **second subtrahend** (second number of subtraction) e.g., 20. Finally, the answer will be $\underline{50} - \underline{20} = 30$.

Step 6: Repeat the above steps to find different possibilities of subtrahends.