## Counting and Estimation

Students should collect different objects (e.g., tamarind seeds or anything similar in size) from the school ground. After collecting the seeds, a discussion should be held in the classroom regarding counting the collected objects and comparing the qualities of collected objects.

## Objective:

- To know about cardinality of numbers
- To know which number is greater than, smaller than, or equal to a particular number


## Activity:

- The students should be divided into groups.
- They should be asked to collect small objects within a stipulated period of time ( $\sim 2 \mathrm{mins}$ ).
- Following this, they should be asked to the count the number of objects, say it out loud, and write it down on their notebook.
- The teacher can write the group-wise count on the board.


## Discussion:

- Which group has a greater/lesser count?
- Which group has an equal count?
- How many objects need to be added/removed to make equal counts between the groups, e.g., if one group has 26 and another has 36 , how many objects need to be added or removed from one particular group to have an equal count?
- How many groups have a count of more than 30/40/50?
- How many groups have a count less than 30/40/50?
- How many objects need to be added/removed from group to make it have a count of 50 ? For example, if one group has a count of 36 , then how many objects need to be added ed to make it 50 ?


## Expected outcomes:

The students will be able to achieve the following through this activity:

- be able to count two-digit numbers
- be able to compare the value of two numbers
- Perform basic operations (addition and subtraction) using two-digit numbers


## Activity 2

As the children are learning estimation skills they are also developing a better sense of number. Teachers can facilitate this development by having children estimate an unknown quantity by (1) comparing it to a known quantity, (2) partitioning it into known quantities, and (3) using mental computation.

## Objective:

- To estimate the count
- To test/reinforce the sense of number to the students


## Activity:

- Small objects (e.g., tamarind seeds) should be scattered on the floor.
- The students will be asked to throw rings over the scattered objects.
- The students are to estimate the count of the objects inside the ring. They must say it out immediately upon being asked without counting, thereby ensuring that they estimate the quantity.
- After estimation, the students must count the actual number of objects and compare their guess with the same. (The teacher is to note that if the guesses of the students are close to the actual count, their responses must be considered. It is not required for the students to come up with an accurate count.)


## Expected Outcome:

- Should to estimate the quantity to nearest possible number

