

## Vision Empower & XRCVC

Teacher Instruction KIT

# Addition (sum not more than 20)

Syllabus: Karnataka State Board

Subject: Mathematics

Grade: First

Textbook Name: Text cum Workbook(Revised)-First Standard

Chapter Number & Name: 10. Addition (sum not more than 20)

## 1.OVERVIEW

### 1.1 OBJECTIVE AND PREREQUISITES

#### OBJECTIVES

- Learning to find the sum of two numbers (sum not more than 20)

#### PREREQUISITE CONCEPT

- Basic addition
- Counting skill
- Oral numbers
- Using a slate & stylus / Braille (If a Braille learner)
- Reading & Writing of Braille/Large Font Alphabets
- Place value and Large Numbers

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*Kindly Note: Activities marked with \* are mandatory*

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## **2. LEARN**

### 2.1 KEY POINTS

Addition helps to master the relationships between numbers and understand how quantities relate to one another.

### 2.2 LEARN MORE-None

## **3. ENGAGE**

### 3.1 INTEREST GENERATION ACTIVITY

#### **INTRODUCTION TO THE CONCEPT**

#### **Activity 1: Adding on a number line**

*Materials Required:* Rope, beads

*Prerequisites:* Stringing beads

#### *Activity Flow*

We have learnt addition previously of single digit numbers. Let's learn to add two digit numbers  $10+2$ . On the rope number line, make the student start by adding 10 beads. The other number to be added is 2. Let's add 2 more beads to the number line. Now let's count the total number of beads on the number line (1,2,3.....12). So  $10+2$  is equal to 12. Repeat this activity with more numbers.

### 3.2 CONCEPT INTRODUCTION ACTIVITIES

#### **Activity 2: Count, group and add**

*Materials Required:* Tooth pricks/Ice-cream sticks, rubber band, bowls

*Prerequisites:* Oral numbers and number progression

#### *Activity Flow*

Teacher can show the class a bundle of 10 sticks and say if we add 1 unit/stick to this bundle it sums up to 11 units/sticks. Similarly, if we add 2 sticks to the bundle of 10 sticks it sums up to 12 units/sticks.

Teacher can tell the class that she has two bowls with some sticks in them. How many sticks in total? Let's all count. The teacher can illustrate the sum of  $7+4$  by taking one bowl, adding 7 sticks and then adding 4 sticks. Now let's count the total number of sticks. We have a total of 11 units/sticks. We could also add by first making a bundle of ten units/sticks. So let's make a bundle of 10 units/sticks. We have 1 unit/stick left. So, 11 units is equal to 1 tens and 1 unit.

Similarly, the teacher can let children work on more sums.

### 3.3 LET'S DISCUSS: RELATE TO DAILY LIFE\*

- Daily transaction
- Counting and quantifying

Give the students some examples of problems from everyday life and then ask them to give suggestions for situations where they will use addition. Encourage the students to count, add as much and as often as they can. It is the easiest way to build a good number sense and strengthen their basic arithmetic.

## 4. EXERCISES & REINFORCEMENT

### 4.1 REINFORCEMENT

#### **Activity 3: Add and group using Ten-frames**

*Materials Required:* Ten frames/Egg carton, beads/seeds/pebbles/balls

*Prerequisites:* Basic addition, numbers

#### *Activity Flow*

A ten frame is a large rectangle with two rows and five equal squares in each row. Therefore, we have a total of 10 squares in one ten frames. Let's add 8 plus 4. We have two ten frames here. So in one ten frame we can add 8 beads/seeds/pebbles/balls and in the other ten frame we add 4 objects. This is the pictorial representation of 8 and 4. Now in the ten frame of 8 objects, how many empty spaces do we see to make the complete 10. We can add 2 more objects to make it 10. So let's move 2 objects from the other ten frames to add it to the 8 objects and make it ten. So now it's much easier to say that  $10+2=12$  and  $8+4=12$ .

The children can be given more additional problems to work on.

#### **Teaching Tips:**

If there are any additional teaching tips then utilize this section to mention them.

**References:None**

## 4.2 IMPORTANT GUIDELINES\*

### **Exercise Reading**

It is very important that the children practice their learnings as well as their Reading. Hence have the children read out the newly learned concepts from their textbooks or other available resources.

### **Perform Textbook Activity**

It is good practice to have the children perform the textbook activities. Your textbook activities might not be accessible hence go through this resource to learn how to make textbook content accessible

### **Provide Homework**

To evaluate their understanding and to help the student revise and implement the new learnt concept ensure to provide them with homework. Students should perform one or two of the questions mentioned above or from the textbook exercises with the teacher in Class and the remaining may be given for homework. Also, ensure that the student knows their special skills linked to independently using their accessible books as it will be critical to doing homework independently

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