Units and Tens

Syllabus: Karnataka State Board
Subject: Mathematics
Grade: First
Textbook Name: Mathematics Text cum Workbook (Revised) English Medium
Chapter Number & Name: 8. Units and Tens

1.OVERVIEW

1.1 OBJECTIVE AND PREREQUISITES

OBJECTIVES
- Form groups of tens and units in a collection
- Using the terms – tens and units
- Represent groups of tens and units through objects
- Children would learn to work with two-digit numbers

PREREQUISITE CONCEPT

- Oral numbers (0 to 100)
- Counting Skill (0 to 20)

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*Kindly Note: Activities marked with * are mandatory*

2. LEARN
2.1 KEY POINTS

Place value can be defined as the value represented by a digit in a number on the basis of its position in the number. It is important that children understand that whilst a digit can be the same, its value depends on where it is in the number.

2.2 LEARN MORE
None

3. ENGAGE
3.1 INTEREST GENERATION ACTIVITY
INTRODUCTION
Activity 1: Understanding the importance of two digit numbers
Materials Required: None
Prerequisites*:* None

Activity Flow
Make the student count to 10 on her/his fingers and then ask them how they will count numbers larger than 10 on their fingers.
Ask them how many digits there are in 10, 11, etc. and ask them how they would write it.
Ask the students to list a few two digit numbers. Follow this by asking the students if the reversal of the digits changes the value of the number. Children must first understand that there is a difference in quantities of each number.
Let's sing a song.
Number 12 will not trick you!
First a one and then a two!

First a one and then a two!
Starting on the left!

Careful with the 21!
First a two and then a one!
First a two and the a one!
Starting on the left!

Check out the link for the music. https://youtu.be/s_fAQHtyHaQ

Forming group of 10 objects
Activity 2: Grouping objects into 10*
Materials Required: Ice-cream sticks/ straws/ pencils, rubber bands
Prerequisites*: Number sequence 1 to 10.*

Activity Flow

The teacher can begin the session by telling children that she had been to the market and she picked up a few number of objects(Ice-cream sticks/ straws/ pencils). Can the class help me find out how many I pick? The teacher can then accidentally drop all the objects. Oh! No, what do I do now? Ok, Class let's start making a group of 10 in a bundle and place a rubber band around. Class counts as the teacher makes the bundles. Now let's see how many bundles we have? We have 1 bundle of 10 objects. So how many objects do we have? 10 objects. So grouping objects into 10 makes counting much easier. Every object you count is one unit and 10 units make a group of 1 Ten. The teacher can try doing it with more objects and can form two teams and let the teams do the grouping of objects into 10.

3.2 CONCEPT INTRODUCTION ACTIVITIES

Units & Tens
Activity 3: Concept of Units & Tens*
Materials Required: Rectangular Shoe Box
Prerequisites*:number sense.*

Activity Flow:
Narrate the following to introduce the concept of units and tens.

Today we will learn about the place value house and we will be talking about units and tens. We have a rectangular shoe box and it is divided into two parts. Do you'll want to know who

lives in this house? The digits or the numbers live here. A digit is any number from 0-9. We have two spots here. The unit's house and the tens house. The unit's house is always on your right and the tens house is to the left. They are certain rules that have to be followed in this house. The first rule is that you can only have one digit in each house. If any number has a single digit say for example, 3. This number goes into the unit's house. Now take another number, say 10. Let's see where we can place 10? Let's place number 10 in the unit's house. There's a RULE BREAK siren. We cannot put both the numbers in one's/unit's place. As said earlier only one number can enter a house at a time. We will have to split the number. Number 10 is a two-digit number and has numbers 1 and 0. Hence number '0' of number 10 goes into the unit's house and the number '1' of number 10 goes into the tens house. Teachers can work out more examples from 11-20.

Questions:
Which house does number 9 belong to?
How will you place number 13?

Activity 4: Grouping and then placing the number into units and tens*
Materials Required: Popsicle sticks, paper cups
Prerequisites*: grouping into 10's and number sense*

Activity Flow:
Let's look at number 12. What does 12 really mean? We can write 12 in a place value chart as 1 ten and 2 ones/units.

But what does "one ten" really mean? One ten is made up of 10 ones/units. In place value, a ten is a bundle of 10 ones/units. Here we have a few popsicle sticks. Let's group them into bundles of ten. One ten. Two tens or twenty. Three tens or thirty. Help the children think of 30 as three tens and 0 ones.

Now let's get back to our number 12. So number 12 has 1 ten and 2 ones/units. Here I have two cups. On your right hand side is the ones/units cup and the left hand side is the tens cup. I have bundled 1 ten sticks and have 2 more sticks which makes the number 12. I will place the bundle of 1 ten sticks in the tens cup and the 2 sticks in the ones/units cup.

Teachers can perform this activity with more examples like 14, 18 etc.

3.3 LET'S DISCUSS: RELATE TO DAILY LIFE*

- Counting in everyday life
- Quantifying objects and information (data)

4. EXERCISES & REINFORCEMENT

4.1 REINFORCEMENT

Activity 5: Last man standing*

Materials Required: Card deck

Prerequisites*: None*

Activity Flow

This game involves distributing the cards to the children and they have to form a 2-digit number and keep all the cards face down. The facilitator should call out numbers and their values. For example: "2 in ten's place," or "5 in one's place." The child whose cards match the number called out   is out of the game. The game continues until there is only 1 person left in the game, who becomes the last man standing.

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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