

# **Grouping Tens and Ones – A Co-Teaching Lesson Plan**

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## **Co-Teaching Approaches**

A “(Y)” in front of the following list items indicates the approach is outlined in the lesson. An “(N)” in front of the following list items indicates the approach is not outlined in the lesson.

- (N) Parallel Teaching
- (Y) Team Teaching
- (N) Station Teaching
- (N) One Teach/One Observe
- (N) Alternative Teaching
- (Y) One Teach/One Assist

## **Subject**

Grade 1 Mathematics

## **Strand**

Number Sense

## **Topic**

Grouping objects and writing the corresponding numeral

## **SOL**

- 1.2 The student, given up to 110 objects, will
- a) group a collection of up to 110 objects into tens and ones and write the corresponding numeral to develop an understanding of place value.

Related standard:

- 1.1 The student will
- b) write the numerals 0 to 110 in sequence and out-of-sequence.

## **Outcomes**

The student will use a collection of objects to model understanding of the place value of a given number.

## Materials

- Story that features counting to numbers between 10 and 110
- Linking cubes to demonstrate the numbers 27 and 35
- Paper and pen for the teacher
- Collections of familiar manipulatives in varying numbers (e.g., bottle caps, shells, beans, keys, jewels, toothpicks, buttons, chicken rings, plastic animals, beads, marbles, erasers), one bag for each group of two to three students
- Small cups to gather the units into groups of 10
- Small baskets to gather cups into groups of 100 if necessary
- Large place-value mats, made from 12” x 18” construction paper
- Recording sheets (fold an 8½” x 11” paper in half with headings prewritten)
- Pencils
- Exit Ticket: Is 47 the same as 4 tens and 7 ones? Draw a picture and explain your answer.

## Vocabulary

*count, digit, exchanging, groups, number, ones, place, place value, regrouping, sets, tens, trading, value*

## Co-Teacher Actions

Lesson Component	Co-Teaching Approach(es)	General Educator (GE)	Special Educator (SE)
Anticipatory Set	Team Teaching	Review counting and the numerals from zero to 110 by sharing a relevant story that features counting and grouping objects into sets of ten.	Support GE by asking comprehension questions and checking for student understanding by demonstrating the concept of grouping objects into tens and ones, using 27 snap cubes.
Lesson Activities/ Procedures	Team Teaching	1. Show students the collections of familiar mathematics manipulatives and say, “Today we are going to use these collections to learn how our number system works as we count and regroup the objects into groups of tens and ones. Then we can count the sets by tens and add on the leftover pieces.	2. Have a few students group a collection of 35 cubes into sticks of 10. Keep the leftover cubes separate. Lay the sticks of 10 on a place-value mat in the “Tens” section. Ask students how many stacks of ten and record that number on a sticky note placed below the stacks. Place the leftover cubes in

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		<p>Once we have done that, we will learn how to write that number using the place-value chart.”</p> <p>3. Using a large place-value mat (made by folding a 12” x 18” sheet of paper in half and labeling the two columns formed by the crease with the headings “Tens” and “Ones”) and a visual representation of each category. For example, a single bean can represent the ones (unit) column, and a cup can represent the tens column.</p> <p>Demonstrating with one of the collections, first ask how many objects are on the mat (zero). Show students how to record zero on the recording sheet by writing a zero on the first line of the column under “ones.”</p> <p>Add one item to the place-value mat while modeling the placement in the unit/ones column on the display mat. Continue adding one item at a time and recording the corresponding numeral until you reach a total of 10. Explain that 10 items cannot be placed in the ones column.</p> <p>Tell the students that the items will be regrouped into the tens column. (The materials used determine the word that</p>	<p>the “Ones” section, ask how many ones are left over, and record that number on a sticky note placed below the ones. Then ask how we would read that number and then verify it by counting the stacks by ten and adding on the ones.</p> <p>4. Explain and demonstrate that every time we count 10 of the objects, we will put them into a cup and call it a <u>ten</u>. It is important that the cup only has 10 objects. If we have leftovers, we will count those as <u>ones</u>. Remember, we can only keep nine objects in the ones place before we make a new group of 10 and move it to the tens place.</p> <p>Then, display 12 linking cubes on the mat, stacking them one above another. Ask students to count how many cubes are represented. Ask the students whether there are more or less than 10 cubes. Once students determine that there are more than 10 cubes, explain that those cubes no longer belong in the ones place but need to move to the tens place. Model for students placing the stack of 10 into the tens place. Ask students how many single cubes remain in the ones place. Show that the one rod and two ones cubes represents</p>

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		<p>should be used: beans are regrouped—10 in a cup; plastic cubes are regrouped—10 cubes snapped together to create a stick or rod.) Continue adding one unit at a time, working up to a number in the 30s. Discuss how the corresponding numeral changes as each new unit (or group of 10) is added and represented on the place-value chart.</p>	<p>the number 12 because there is one group of ten and two ones. Write the number 12 next to the display of cubes on the place value mat.</p> <p>Repeat this process as need with numbers of varying complexity.</p>
<p><b>Guided/ Independent Practice</b></p>	<p>Team Teaching</p>	<p>Randomly group students into groups of two and give them a collection bag, small cups, and a recording sheet. Direct them to find out how many objects are in their bag by repeating what the teachers did in the demonstration lesson. Circulate to observe students correctly placing, counting, recording, and regrouping as necessary to discover their number.</p> <p>Ask questions to check for understanding of the process: “I see you wrote 27. What does the 2 represent? What does the 7 represent?” <u>or</u> “I see you have 12 written in the ones place. Can you have more than nine in the ones place? What should you do?” “What numeral represents ‘no objects’ in a group?” “Look at the numeral 40. What does the 4 represent? What does the zero represent?” (four tens; zero ones)</p>	<p>During the lesson, be sure to ask questions to check for student understanding</p> <p>*This section of the lesson plan can be modified into an alternative teaching design if students need more specialized instruction.</p>

<b>Lesson Component</b>	<b>Co-Teaching Approach(es)</b>	<b>General Educator (GE)</b>	<b>Special Educator (SE)</b>
<b>Closure</b>	Team Teaching	After each group clears their mats and puts the collection back into the bag ask: “How many objects were in your bag? How many groups of ten and how many ones did you have leftover? Is it the same number as what is in the bag now? How do you know?”	Same as GE. Take turns asking questions.
<b>Formative Assessment Strategies</b>	Team Teaching	Exit Ticket: Is 47 the same as 4 tens and 7 ones? Draw a picture and explain your answer.	Same as GE. Differentiate the number that students are displaying based on their level of proficiency.
<b>Homework</b>	Team Teaching	Students will be asked to demonstrate and discuss with their family by using the “Guessing Jar.” Each week, have a different student take home a “Guessing Jar” and fill it with items to estimate, count, sort, and group into tens and ones for additional place-value practice. The products that they return from this project will be used to construct a bulletin board titled “Estimation Station.”	Same as GE.

### **Specially Designed Instruction**

- Rather than use a bean and a cup to represent ones and tens, use base ten blocks so the students can feel and see that 10 ones is the same size as a ten.
- Ask students to verbally explain the process as they create the numbers with the manipulatives.

### **Accommodations**

- Pair students to help support each other’s learning.
- Provide a sentence frame, “I have \_\_\_\_ tens, and I have \_\_\_\_ ones. I have \_\_\_\_ in all.”
- Have students use the sentence frame to record the results of their grouping and counting experiences.

- Provide students with a “backward chaining” visual to use when modeling place value.

## **Modifications**

- Begin working with small amounts of items to group and count, increasing the number of items to be counted as students demonstrate readiness.

## **Notes**

- “Special educator” as noted in this lesson plan might be an EL teacher, speech pathologist, or other specialist co-teaching with a general educator.
- It is important to note that this lesson is designed to be taught over a few days. Students will need guided practice on how to group and write numbers that represent three place values. We suggest that this lesson is built upon in order to extend student mastery of skill. The same lesson procedure can be followed, using more complex numbers and baskets or boxes to house the “hundreds.”
- Students need many experiences with grouping all types of objects and place-value materials into sets of tens and ones and recording the corresponding numerals. At this level, emphasize grouping as a more efficient way to count a large number of objects.
- Use journal/writing prompts to check for understanding. Examples:
  1. “Represent the number 72 in two different ways. Write about how you represented 72.” (Possible responses include showing seven groups of 10 items and two ones; showing seven rods and two units; writing  $62 + 10$ .)
  2. “I have five groups of 10 apples and three more apples. Show and tell me how you can figure out how many apples I have altogether.”
  3. “You have 65 marbles, and I give you 10 (or any number) more. Show me how you can find out and prove how many you now have.”
- Make observations while the student groups are counting and regrouping objects.
- Place a bag of beans and plastic cups in your mathematics center for students to practice counting and grouping by tens and ones. Have them represent their work in their math journals.
- The guided practice section of this lesson plan can be modified into an alternative teaching design if students need more specialized instruction during this part of the lesson.