

Counting Collections – A Co-Teaching Lesson Plan

Co-Teaching Approaches

A “(Y)” in front of the following list items indicates the approach is outlined in the lesson.

A “(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
- (Y) Alternative Teaching
- (N) One Teach/One Assist

Subject

Grade 1 Mathematics

Strand

Number and Number Sense

Topic

Counting objects by ones, twos, fives, and tens, and counting backward orally by ones

SOL

- 1.1 The student will
- c) count backward orally by ones when given any number between 1 and 30, and
 - d) count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110.

Outcomes

The student will explore what it means to count forward to 110 by ones, twos, fives and tens when using practical and real-world objects.

Materials

- Items that can be found in our daily life (e.g. Legos, noodles, buttons)
- Clear jars
- Large hundreds chart to 110.
- Individual hundreds chart to 110 for students (specialized instruction)

- Mathematics journals or notepaper
- Dry-erase materials (boards, markers, and erasers)

Vocabulary

counting, backward, forward, skip counting

Co-Teacher Actions

Lesson Component	Co-Teaching Approach(es)	General Educator (GE)	Special Educator (SE)
Anticipatory Set	Team Teaching	<p>The GE will discuss that one of their favorite games to play at a fair or carnival is “Guess How Many?”</p> <p>The GE will ask the class to consider how to count a lot of small items for accuracy.</p>	<p>The SE teacher will confirm that this is fun, but it can be tough to do when you have a lot of items, such as candy corn, or marbles to count!</p>
Lesson Activities/ Procedures	Team Teaching	<p>Gather students on the floor in a circle, and place a clear jar containing up to 110 objects in the middle of the circle. Ask students to estimate how many objects are in the jar.</p> <p>After all students have had a chance to estimate, ask how we can find out exactly how many objects are in the jar (by counting). Dump the contents of the jar onto the floor, and have students start counting orally with you by ones. When the class finishes counting, check the estimates and discuss their accuracy.</p> <p>Ask students which would be the fastest method of counting: counting by twos, fives,</p>	<p>Record students’ estimates on chart paper or on the board.</p> <p>Point out how long it took to count by ones, and ask whether anyone has an idea of how to count the objects faster. If no one suggests skip counting, ask questions to lead students to this suggestion. Ask students what skip counting is, and discuss the ways you can skip count (by twos, threes, fours, fives, etc.).</p>

		or tens. After they have given their answers and justified their reasoning, tell them they are going to test skip counting all three ways to see which is the fastest.	
Guided/ Independent Practice	Alternative Teaching	<p>2. The teacher will have the remaining students stay at the carpet. The teacher will ask one-third of the students to group the objects into groups of two. Once all objects have been grouped, begin to lead the class in counting them again by ones. Some students should stop you and question your counting by ones, but if there are no objections, prompt them by asking, “Am I counting correctly?” Ask, “How can the objects be counted faster?” When students suggest counting by twos, ask why. After they justify their answer, begin counting the objects by twos. Then repeat this process with another one-third of the students to group the objects into groups of five. Ask how the objects should be counted this time and to explain why. When students have justified their answer, then lead them in counting the groups by five. Once again, repeat this process, using the last one-third of the class to form groups of 10. When students have explained why they will be counting by tens, lead them in counting by tens. Ask students which way of counting was the fastest</p>	<p>1. The SE teacher will take a group of students based on previous assessments and teacher knowledge. Ask the students to group the objects into groups of two. This activity will be teacher-assisted. The students will work together to group the items into twos. The teacher will have a hundreds chart and will model how to place the twos in a skip-counting pattern directly onto the hundreds chart. This will help the students be able to accurately skip count by twos when all items have been sorted. This activity can be enhanced further by having the students color the matching number on the hundreds chart as the items are placed.</p> <p>Once the groups of twos have been completed, the group will go back and, using their charts, orally skip count by twos to identify the number of items in the jar.</p> <p>The teacher will then ask the group whether there are other ways in which to group the items to make the counting a little faster. The students will then group</p>

		<p>and to explain why.</p> <p>3. Have each group of students assemble a jar of 30 objects, using skip counting. When each group is satisfied there are 30 objects in their jar, ask each group to share their strategy for counting the objects. Then, select one jar to demonstrate counting backward. Begin by removing one object from the jar and saying, "We had 30 objects in the jar, and we have taken one out. How many objects are left in the jar?" Continue by passing the jar around the circle and having students remove one object at a time while counting backward from 30 until the jar is empty. Keep the other jars and use them as a counting down station.</p>	<p>the items by fives and lastly by tens.</p> <p>With fives, the teacher will just circle the numbers on the hundreds chart. When counting by tens, change color and make a square around the tens. The students can either use one chart for all three skip-counting options or you can provide three charts to show the different skip-counting patterns.</p> <p>2. Have this group to assemble a jar of 30 objects to use for the counting backward practice (see the GE lesson, part 2).</p>
Closure	Team Teaching	<p>Use dry-erase materials or mathematics journals to complete the following:</p> <p>"Write your numbers from 10 to 110 by tens. Then, write them from 5 to 110 by fives. Finally, write them from 2 to 110 by twos. Which way took you the longest time? Explain why."</p> <p>When would it be useful to count something backward?</p>	<p>**The students who worked with the SE teacher in the class activity will complete this activity with modifications to allow independent success. (This would mean that if your students are still working on identifying numbers to 50, they would independently complete this exercise of skip counting to 50.)</p>
Formative Assessment Strategies	Team Teaching	<p>1. Answer questions in their math journals:</p> <p>"Why is it helpful to use skip counting when</p>	<p>1. If students are not able to write their answers, a verbal response can be noted.</p> <p>2. Give students individual baggies with</p>

		<p>counting large numbers of objects?</p> <p>“Can you give an example of when skip counting may help you?”</p> <p>“Which is faster, counting by ones, twos, fives, or tens? Why?”</p> <p>2. Give individual students baggies filled with different numbers of objects to count by twos, fives and tens. Have them illustrate their findings with pictures of the three kinds of grouping.</p> <p>3. Play “Count Around the World.” Have all students stand in a large circle. Beginning in anywhere on the circle, direct students to begin counting from student to student by ones until you get to 110. Repeat the process with twos/fives/tens, allowing students to have brief thinking time to name the next number. If a student makes a counting error, give them a second chance, but have them sit down if they cannot come up with the next sequential number. Repeated play of this game helps students to practice skip counting.</p>	<p>accessible numbers of objects to count independently using twos, fives, and tens.</p>
Homework	Team Teaching	<p>Week Project:</p> <p>Students will be asked to make a poster of 110 objects, using an assigned skip-counting strategy to use and illustrate. Students will be assigned to count by two, five, or 10 based on their ability level.</p>	Same as GE

Specially Designed Instruction

- Teachers can accompany instruction with manipulatives, illustrations, and thinking aloud to help students understand difficult concepts and procedures. (See above notes in Guided/Independent Practice)
- Teachers use SIM content enhancement routine — framing poster, which will be referred to during the anticipatory set as well as in the lesson closure (see framing poster below, which can be enlarged and used as a poster).
- Visual aids and modelling will be used as detailed in the Guided/Independent Practice. Students will see the skip counting take place on the large hundreds chart and then reinforce the skip counting by coloring/circling and tracing the numbers that would be referred to for skip counting by twos, fives and tens.

Accommodations

- Use of concrete visuals.
- Teacher modelling of how to transfer practical items to skip counting using a hundred chart.
- Use a hundreds chart to help students practice skip counting. Have students color in a hundreds chart as you count together so they can see the patterns that form. This can be modeled using a large hundreds chart, and charts may be displayed in the classroom as a reference for students.
- Simplify instructions to students.

Modifications

- For those students who require modifications, teachers can modify curriculum by having students count to a lower number such as 50 and/or skip counting by 5 and 10.

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.
- The co-teachers who developed this lesson plan received required professional development in the use of specialized instructional techniques which combine an explicit instructional routine with the co-construction of a visual device (graphic organizer). The *Framing Routine* used in conjunction with the “Frame” helps to develop understanding of information and procedures by associating their main ideas and details. These Content Enhancement Routines were developed at the Center for Research on Learning at the University of Kansas. [Link: http://www.kuclrl.org/sim/brochures/CEoverview.pdf](http://www.kuclrl.org/sim/brochures/CEoverview.pdf)
- Other graphic organizers should be used by teachers who have not received professional development in the Framing Routine. If Virginia teachers would like to learn Content Enhancement Routines, contact your regional TTAC.

Note: The following pages are intended for classroom use for students as a visual aid to learning.

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Hundreds Chart

0									
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100
101	102	103	104	105	106	107	108	109	110

SIM Framing Poster

Key Topic

Skip Counting

Is About... Number patterns to 110

Main Idea

Counting by ones

Essential Details



Count one at a time

Good for counting small groups of items

Main Idea

Counting by twos

Essential Details



Count on by 2 at a time

Good for counting groups of items larger than 10 but less than 50

Counting by fives

Essential Details



Count on by 5 at a time

Good for counting large groups of items

Counting by tens

Essential Details



Count on by 10 at a time

Good for counting large groups of items