2ⁿᵈ Grade Module 3

Lesson 1

Meter Strip Subtraction: Taking Multiples of 10 from Numbers Within 10 to 100 (5 minutes)

Materials: (S) Meter strips (pictured below)

T: (Each student has a meter strip.) Put your finger on 0 to start. I'll say the whole measurement. Slide up to that number. Then take away 10 centimeters and tell me how many centimeters your finger is from 0.

T: Let's try one. Fingers at 0 centimeters! (Pause.) 50 centimeters.

S: (Students slide their fingers to 50.)

T: Remember to take 10. (Pause.) How far is your finger from 0?

S: 40!

T: 40 what?

S: 40 centimeters!

T: Slide your finger back to 0. (Pause.) 85 centimeters.

T: (Pause) How far is your finger from 0?

S: 75 centimeters!

T: Good. Slide back to 0. (Pause) 49 centimeters.

Continue with examples as necessary.

T: Nice work. This time I'll say the whole measurement, and you take 20 centimeters. Ready?

T: Slide back to 0. (Pause.) 65 centimeters.

S: 45 centimeters!

Continue with possible sequence: Slide from 0 to 32, then take 20; to 36, then take 30; to 78, then take 50; to 93, then take 40; to 67, then take 60, etc.

Skip-Count Up and Down by Fives on the Clock (11 minutes)

Materials: (T) A "clock" made from a 24 inch ribbon marked off at every 2 inches

T: (Display the ribbon as a horizontal number line – example pictured above.) Count by fives as I touch each mark on the ribbon.

S: (Starting with 0, students count by fives to 60.)

T: (Make the ribbon into a circle resembling a clock.) Now I've shaped my ribbon to look like a…

S: (Possible student responses) Circle! Clock!

T: Let's call it a clock. Again, count by fives as I touch each mark on the clock.

S: (Starting with 0, students skip-count by fives to 60.)

T: This time, the direction my finger moves on the clock will show you whether to count up or down. (As you explain, demonstrate sliding your finger forward and backward around the clock.)

T: As I slide to the marks, you count them by fives.

Starting at 12, slide forward to 4 as students count on. On a clock, 12 represents both 0 and 60. We are not stating 0 so that students count on effectively.

S: 5, 10, 15, 20.

T: How many minutes is that?

S: 20!

T: 20 ice cream cones? (Playfully help students remember to use precise language to identify units.)

S: No, silly! 20 minutes!

T: Oh! Okay. Let's remember to say what we mean.

T: (Starting from 4 slide your finger forward to 9. Do not restate 20. Count on.)

S: 25, 30, 35, 40, 45.

T: How many minutes is that?

S: 45 minutes!

T: (Keep your finger at 9.) What if I slide back one mark, then how many minutes?

S: 40 minutes!

T: Good. What if I slide forward one mark, then how many minutes?

S: 45 minutes!

T: Nice job. Let's count back from 50. (Start from 50 and slide back 5 times.)

S: 45, 40, 35, 30, 25.

T: How many minutes now?

S: 25 minutes!

Continue. Notice which switches or numbers your students find most difficult and use their cues to guide the practice you provide. T: Let's pause for a couple of minutes to think about the tools we've used so far today.

T: With your partner, compare the meter strip to the clock. How are they the same? How are they different?

For about 1 or 2 minutes, circulate and listen for responses. Use questioning strategies to support student communication and the level of their insights.

S: (What you might hear, from simple to complex.) They're both curly. Remember our paper meter strips were curly too? They can both be a straight line. The clock has 12 marks and the other one has a lot more. You can count with both of them. The clock goes to 60 and the meter strip goes to 100. On one you skip-count by fives and on the other you can skip-count by twos or tens. All the marks on the clock are the same space apart, and

the marks on the meter strip are the same space apart. You can use them both to measure. One measures time and one measures length.

T: I hear some of you saying that we use both tools to measure. It's true that clocks and meter strips both measure.

T: What makes them useful for measuring? Talk with your partner for 30 seconds.

S: They both have marks that are the same space apart. □ The numbers go from smallest to biggest. □ They're both like rulers, but they have different units. □ Clocks measure time. We can't see that! □ It's like they both keep track of our counts. □ And they both give us a place to count.

T: (After students have shared.) I used a ribbon to make our clock. What would happen if I moved it back into a horizontal line so that it looked more like a meter strip? Partner A, could I still use it to measure the length of time? Tell Partner B why or why not.

S: (Possible response.) I think so. You're not changing the numbers on it. You can still count how many minutes. When you've counted the whole thing you know an hour went by.

T: (Move the ribbon back into a horizontal line and present it to students near the meter strip for a visual comparison.) Partner B, tell Partner A why you agree or disagree.

S: (Possible response) I disagree. There are no little hands to tell you where to count, to tell you how many minutes have gone by.

T: Keep thinking and talking about these two measurement tools. Ask your parents what they think!

Happy Counting: Up and Down by Ones from 95 to 121 (2 minutes)

T: We're going to play Happy Counting!

T: Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals as you explain.)

T: Let's count by ones, starting at 95. Ready? (Teacher rhythmically points up until a change is desired. Show a closed hand then point down. Continue, mixing it up.)

S: 95, 96, 97, 98, 99, 100, 101, 102 (switch). 101, 100 (switch). 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112 (switch). 111, 110, 109 (switch). 110, 111, 112, 113, 114, 115, 116, 117 (switch). 116, 115, 114, (switch), etc.

Skip-Count by Tens: Up and Down Crossing 100 (2 minutes)

T: This time let's play Happy Counting, but skip-counting by tens!

T: Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals as you explain.)

T: Let's count by tens, starting at 60. Ready? (Teacher rhythmically points up until a change is desired. Show a closed hand then point down. Continue, mixing it up.)

S: 60, 70, 80, 90, 100, 110, 120, 130, 140 (switch). 130, 120, 110, 100, 90 (switch). 100, 110, 120, 130, 140, 150, 160, 170, 180, 190, 200, 210, 220 (switch). 210, 200, 190, 180, (switch), etc.

Lesson 2

Meter Strip Subtraction: Taking Multiples of 10 from Numbers 10–100 (4 minutes)
Materials: (S) Meter strips Keep students challenged and engaged by adding a new layer of complexity to the game in this second round. The following are suggestions for how you might adapt the sequence demonstrated in Topic A, Lesson 1 to match your students' ability. Suggestions are given in order from least to most complex.

Subtract 9 and then 8 from multiples of 10 up to 100.
Subtract any two-digit number from a multiple of 10 up to 100 (e.g., 30 – 13, 40 – 24, 60 – 45, etc.)
Tell or write a number sentence describing sliding down from the whole amount (e.g., 50 – 10 = 40 cm)
Create a sequence of *change unknown* slides. For example:

T: Start with your finger on 0. Slide up to 52cm.
T: Now slide down to 49. How many centimeters did you slide down?
S: 3 cm!

Tell or write a number sentence to describe the *change unknown* slide (e.g., 52 – = 49cm). State that change in a sentence, including the unit. "I slid down centimeters."

Measure and Compare (6 minutes)
Materials: (S) Meter strips and personal white boards

T: (Students are seated at tables with materials. Write or post the sentence frame described in the box below.) I'll name two objects, you measure their lengths. Your goal is to determine how much longer one object is than another. Write the lengths on your board so that you don't forget, and be sure to state the unit when you compare lengths.
T: Partner A, compare the lengths using the sentence frame (point to the frame).
T: Partner B, confirm that you agree with Partner A's statement. You might say "I agree" or "I disagree." If you disagree, be sure to explain why. Each time we measure new things, switch roles.
T: Compare the length of your science book with the length of your crayon.
S: (For 1 minute, students measure, write lengths, and compare them in partnerships.)
T: Compare the length of your desk and the length of the seat on your chair.

S: (For 1 minute, students measure, write lengths and compare them in partnerships.)
T: (Continue, being mindful to select objects that lead to agreement about which is longer or shorter. One student's pencil may very well be shorter than their crayon, while the other student's might be much longer.)

Skip-Count Up and Down by Fives on the Clock (4 minutes)
Materials: (T) A "clock" made from a 24 inch ribbon marked off at every 2 inches In this second round, add a new layer of complexity to the work to keep students challenged and engaged. The following is a suggestion for how you might adapt the vignette demonstrated in Topic A, Lesson 1.

T: Skip-count by 5 until my finger stops. (Slide your finger to 4.)
S: 5, 10, 15, 20.
T: (From 4, slide your finger forward to 9.) Keep counting as I move my finger.
S: 25, 30, 35, 40, 45.
T: How many minutes have passed in all?
S: 45 minutes!
T: (Keep your finger at 9.) How many is 10 minutes less?
S: 35 minutes!
T: Good. (Put your finger back at 9.) How many is 10 minutes more?
S: 55 minutes!

Counting with Ones, Tens, and Hundreds: 0 to 1,000 (4 minutes)
Materials: (T) Bundle of one hundred, 1 ten, and a single straw from Lesson 1

T: Let's play a game using what we know about counting by ones, tens, and hundreds. I'll hold bundles to show you what to count by. A bundle of 100 means count by hundreds, a bundle of 10 means count by tens, and a single straw means count by ones. (Create visual support by writing the numbers on the board as students count.)

T: Let's start at 0. Ready? (Hold up a bundle of 10 until students count to 130.)
S: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, 120, 130.
T: (Hold up a bundle of 100 until students count to 630.)
S: 230, 330, 430, 530, 630.
T: (Hold up a bundle of 10 until students count to 690.)
S: 640, 650, 660, 670, 680, 690.
T: (Hold up a single one until students count to 702.)
S: 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702.
T: (Isolate the numbers 698–702 by drawing a box around them.) Partner A, count these numbers up and down as fast as you can to Partner B. Then switch. If you both finish before one minute is up, try it again and see if you get faster!

Lesson 3

Counting with Ones, Tens, and Hundreds from 0 to 1,000 (4 minutes)

Materials: (T) Bundle of 1 hundred, 1 ten, and a single straw from Lesson 1 For this second round, you may want to change the partner share to have students rapidly count up and down a larger sequence of numbers. Students often need additional practice with crossing a hundred, as well as with the first 30 numbers that begin a new hundred (e.g., 100—130, 600—630, etc.).

Lesson 4

Exchange to Get to 50 (5 minutes)

Materials: (S) Dienes blocks, 12 ones, 5 tens, and 1 hundred flat per student; 1 die per pair (Suggestions for modifying this game are presented in Topic C, Lesson 5)

T: (Students are seated in pairs at tables with materials.) Our game is to make 50.
T: Partner A, roll the die. Take that number of ones cubes from your pile, and line them up in a row on your hundred flat on the first row.
T: Now Partner B takes a turn.
T: It's Partner A's turn again. Start a new row if you need to.
T: Some of you may now have 10, 11, or 12 ones on your hundred flats. If you completed a ten with your last roll, exchange the row of 10 ones for a ten-rod. Be sure to leave your extra ones on your hundred-flat.

Lesson 5

Exchange to Get to 100 (5 minutes)

Materials: (S) Dienes blocks, 12 ones, 10 tens, and 1 hundred per student; 1 die per pair
To keep student engagement high, you might modify the game for the class or for individuals. These are some adjustment suggestions:

Two pairs at a table can "race" against each other rather than compete individually. This provide ssupport and may reduce anxiety for students below grade level or students with disabilities.

Students below grade level or those with disabilities may benefit from writing the new total after each turn.

Switch the game to become Exchange to Get to 0. Students start at 100 and subtract the number of ones rolled on the die, exchanging tens rods for ones cubes.

Meter Strip Addition: Using Two-Digit Numbers with Totals in the Ones Place that Are Less Than or Equal to 12 (7 minutes)
Materials: (S) Meter strips

T: (Each student has a meter strip.) We're going to practice addition using our meter strips.
T: Put your finger on 0. Slide up to 20. (Wait.) Slide up 9 more.
T: How many centimeters did you slide up altogether?
S: 29 centimeters.
T: Tell your partner a number sentence describing sliding from 20 to 29.
S: 20 + 9 = 29.
T: Put your finger on 0. Slide up to 34. (Wait.) Slide up 25 more.
T: How many centimeters did you slide up altogether?
S: 59 centimeters!
T: Whisper a number sentence describing sliding from 34 to 59.
S: 34 + 25 = 59
T: (Continue with possible sequence: 46 + 32, 65 + 35, 57 + 23, 45 + 36, 38 + 24, etc.)

Lesson 6

Than 12 (7 minutes)
Materials: (S) Meter strips, personal white boards

T: (Each student has a meter strip.) We're going to practice addition using our meter strips.
T: Put your finger on 0. Slide up to 27 centimeters. (Wait) Slide up 35 more centimeters. You might first skip-count by ten three times, then go up 5 ones.
T: How many centimeters did you slide up altogether?
S: 62 centimeters.
T: Tell your partner a number sentence describing sliding from 27 to 62.
S: 27 + 35 = 62.
T: Put your finger on 0 centimeters. Slide up to 38 centimeters. (Wait) Slide up 36 more centimeters.
T: How many centimeters did you slide up altogether?
S: 74 centimeters!
T: At the signal say a number sentence describing sliding from 38 to 74. (Pause, signal)
S: 38 + 36 = 74.
T: (Continue with possible sequence: 37 + 37, 45 + 28, 49 + 26, 68 + 28, 57 + 29, etc.)

T: In each of these problems we had more than 9 ones so we had to make a new ten. I will write a number sentence. Wait for the signal. Say "make ten" if you have more than 9 ones. Say, "you can't T: 35 + 22.

S: You can't make ten.

T: 63 + 16.

S: You can't make ten.

T: 48 + 29.

S: Make ten.

T: 36 + 54.

S: Make ten.

T: 27 + 16.

S: Make ten.

T: Now, turn to your partner and on your personal board, write as many addition number sentences as you can solve on your meter strip that need to make ten. You have one minute. Take your mark, get set, go!

Unit Form Counting from 398 to 405 (3 minutes)

Materials: (T) Place value cards

T: Today we're going to practice *unit form counting*. This time we'll include hundreds! The unit form way to say 324 is "3 hundreds 2 tens 4 ones." (Pull the cards apart to show the 300, 20, and 4.)

T: Try this number. (Show 398. Signal.)

S: 3 hundreds 9 tens 8 ones.

T: (Pull cards apart.) That's right!

T: Let's count on from 398 the unit form way. (Display 399–405 with place value cards as students count.)

S: 3 hundreds 9 tens 9 ones, 4 hundreds, 4 hundreds 1 one, 4 hundreds 2 ones, 4 hundreds 3 ones, 4 hundreds 4 ones, 4 hundreds 5 ones.

Think 10 to Add 9 (2 minutes)

T: Listen carefully! If I say, "9 + 5," you say, "10 + 4." Wait for my signal. Ready?

T: 9 + 5. (Signal)

S: 10 + 4.

T: 9 + 3.

S: 10 + 2.

T: 9 + 7.

S: 10 + 6.

T: 9 + 4.

S: 10 + 3.

T: 9 + 2.
 S: 10 + 1.
T: 9 + 6.
S: 10 + 5.
T: 9 + 9.
S: 10 + 8.
T: 9 + 8.
S: 10 + 7.

Lesson 7

Write Numbers in Expanded Form (4 minutes)

Materials: (T) Place value cards (S) Personal white boards, template (pictured to the right)

T: (Each student slides a copy of the template pictured to the right into their personal white board.) I'll show a number with place value cards. You'll write it in expanded form. I'll tell you which box to use by saying A, B, or C.

T: Notice Box C doesn't have any words. I'll say a special order when we use Box C. Ready?

T: (Show 145.) B. Show your board at the signal. (Pause, signal)

S: (Students use Box B and write 40 + 100 + 5.)

T: (Show 306.) A. Wait for the signal. (Pause. Signal.)

S: (Students use Box A and write 300 + 0 + 6.)

T: (Show 316.) C. Here's the order: ones, hundreds, tens. (Pause. Signal.)

S: (Students use Box C and write 6 + 300 + 10.)

T: (Continue, varying the boxes and numbers shown.)

T: Now you're warmed up for a Sprint!

Skip-Count Up and Down by $10 Between 45 and 125 (3 minutes)

Materials: (T) 12 ten dollar bills, 1 five dollar bill

T: (Lay out $45 so that all students can see.) When I signal, tell the total value of the bills. (Pause, signal)

S: 45 dollars!

T: Good. Watch carefully as I change the total value. Count the new amount as I make it.

T: (Lay down ten dollar bills to make $55, $65, $75, $85, $95, $105, $115, $125.)

S: (Students respond in kind.)

T: (Take ten dollar bills to make $115, $105, $95, $85, $75.)

S: (Students respond in kind.)

T: (Lay down ten dollar bills to make $85, $95, $105, $115, $125.)

S: (Students respond in kind.)

T: (Take ten dollar bills to make $115, $105, $95.)

S: (Students respond in kind.)

T: (Continue alternating practice counting up and down, crossing back over numbers that your students demonstrate difficulty counting.)

Lesson 8

Mixed Counting with Ones, Tens, and Hundreds from 1,000 to 0 (5 minutes)

Materials: (T) Bundle of one hundred, one ten, and a single stick from Lesson 1

T: Let's play Mixed Counting using what we know about counting by ones, tens, and hundreds. I'll hold bundles to show you what to count by. A bundle of 100 means count by hundreds, a bundle of 10 means count by tens, and a single stick means count by ones.
T: Let's start at 1,000 and count down. Ready? (Hold up a bundle of 10 until students count to 940. If necessary, create visual support with the difficult language of these numbers by writing them on the board as students count.)
S: 990, 980, 970, 960, 950, 940.
T: (Hold up a bundle of 100 until students count to 540.)
S: 840, 740, 640, 540.
T: (Hold up a bundle of 10 until students count to 500.)
S: 530, 520, 510, 500.
T: (Hold up a single one until students count to 495.)
S: 499, 498, 497, 496, 495.
T: (Hold up a ten until students count to 465.)
S: 485, 475, 465.
Continue, varying practice counting with ones, tens, and hundreds.

Doubles (1 minute)

T: I'll say a doubles fact. You tell me the answer. Wait for my signal. Ready?
T: 5 + 5. (Signal.)
S: 10.
T: 3 + 3.
S: 6.
T: 6 + 6.
S: 12.
T: 1 + 1.
S: 2.
T: 4 + 4.
S: 8.
T: 9 + 9.
S: 18.
T: 2 + 2.

S: 4.
T: 10 + 10.
S: 20.
T: 8 + 8.
S: 16.
T: 7 + 7.
S: 14.

Related Facts Within 20 (2 minutes)

T: I say, "10 – 6." You say, "6 + 4 = 10." Wait for my signal. Ready?
T: 8 – 3. (Signal.)
S: 3 + 5 = 8.
T: 13 – 7.
S: 7 + 6 = 13.
T: 11 – 8.
S: 8 + 3 = 11.
T: 15 – 9.
S: 9 + 6 = 15.
Continue in this manner for 2 minutes.

Lesson 9

Count and Change Coins to 30 Cents (3 minutes)
Materials: (T) 11 pennies and 4 dimes

T: (Display and label a penny and a dime.) A penny has a value of 1 cent, or 1 one. A dime has a value of 10 cents, or 1 ten.
T: Let's count pennies. We'll count them by ones because they have a value of 1 cent. (Lay out 1 penny at a time as students count to 10.)
S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
T: A dime has the same value as 1 ten. At the signal, say how many pennies are in a dime. (Signal.)
S: 10 pennies are in 1 dime.
T: We've counted 10 pennies; let's change them for 1 dime.
T: Let's keep going, counting on from 10. (Point to the dime, then lay out pennies as students count to 20.)
S: 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20.
T: What is the value of our coins? Count from $10 to $1,000 on the place value chart and the empty number line.

S: 20 cents!

T: We've completed another ten (point to the pennies). What step can we take to reduce the number of coins, but keep the value of our 20 cents the same? Turn and whisper to your partner.

S: We can change our 10 pennies for another dime.

T: (Change the 10 pennies for another dime.) Thumbs up if this was your idea.

S: (Students give thumbs up.)

T: Let's keep counting. Remember to count the dimes by tens and the pennies by ones. (Continue until students have reached 30 cents and changed 10 pennies for 1 dime a third time.)

Mixed Counting with Ones, Tens, and Hundreds from 1,000 to 0 (5 minutes)

Materials: (T) Bundle of one hundred, one ten, and a single stick from Lesson 1

Vary numbers in this second round. You may also choose to isolate a sequence that your students find particularly challenging, and provide them with a minute of partner practice to count up and down the sequence as fast as possible.

Skip-Count by Twos Beginning at 394 (7 minutes)

Materials: (S) Blank piece of paper

Using a blank piece of paper and a pencil, students count by twos beginning at 394. They write numbers, counting as fast and as high as they can for 1 minute. "Skip-count by" follows the same energizing routine for administration as Sprints. Refer to the directions for administration of Sprints, which are in the appendix of G2—M3—Fluency Progressions.

Like Sprints, after animated correction, an extra minute for independent practice, sharing with a partner, and a brief kinesthetic exercise, students repeat the counting task. The vast majority of students immediately see improvement on the second effort. Celebrate improvement in the same way you do with a Sprint.

Lesson 10

Count and Change Coins from 85 to 132 Cents (3 minutes)

Materials: (T) 16 pennies and 13 dimes

T: (Display and label a penny and a dime.) At the signal say the answer. A penny is like 1 one, 1 ten or 1 hundred?

S: 1 one!

T: A dime is like 1 one, 1 ten or 1 hundred?

S: 1 ten!

T: Let's count. (Quickly lay out 85 cents using 8 dimes and 5 pennies.)

S: 10, 20, 30, 40, 50, 60, 70, 80, 81, 82, 83, 84, 85.

T: (Lay out another dime.) Whisper the new value of our money to your partner.

S: 95 cents. (Take note of students who have difficulty with this.)

T: Let's count on. (Lay out pennies as students count to 105.)

S: 96, 97, 98, 99, 100, 101, 102, 103, 104, 105.

T: The new value of our money is…

S: 105 cents!

T: Whisper to your partner how we can reduce the number of coins but keep the value the same.

S: Change 10 pennies for a dime. (Take note of students who are uncertain, possibly because 105 is not a multiple of 10.)

T: (Continue, mixing counting by ones and tens to 125. Vary your practice in response to where you noticed students having difficulty in the first counts. Remember to count from 125 to 132 using pennies.)

Skip-Count by Tens: Up and Down Between 0 and 1,000 (3 minutes)

T: Let's play Happy Counting skip-counting by tens!

T: Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals as you explain.)

T: Let's count up by tens, starting at 560. Ready? (Teacher rhythmically points up until a change is desired. Show a closed hand then point down. Continue, mixing it up.)

S: 560, 570, 580, 590, 600, 610, 620 (switch). 610, 600 (switch). 610, 620, 630, 640, 650, 660, 670, 680, 690 (switch) 680, 670, 660, (switch) 670, 680, 690, 700, 710, 720, 730 (switch). 720, 710, 700 (switch), etc.

Lesson 11

Rekenrek Counting: Numbers in Unit Form Between 11 and 100 (4 minutes)

Materials: (T) Rekenrek

T: (Show 11.) What number is showing?

S: 11!

T: The unit form way?

S: 1 ten 1 one.

T: Good. Keep counting the unit form way. (Move beads to count by ones to 15.)

S: 1 ten 2 ones, 1 ten 3 ones, 1 ten 4 ones, 1 ten 5 ones.

T: This time say each number 2 ways. First the unit form way, then just as ones. Let's do one together so you know what I mean. (Switch to counting by tens and show 25.)

T: Me first. 2 tens 5 ones is 25 ones. Your turn.

S: 2 tens 5 ones is 25 ones.

T: Good. Say the numbers that I show both ways. (Continue to count by tens to 55.)

S: 3 tens 5 ones is 35 ones, 4 tens 5 ones is 45 ones, 5 tens 5 ones is 55 ones.

T: This time say the ones first, then the unit form. (Switch to counting by ones to 61.)

S: 56 ones is 5 tens 6 ones, 57 ones is 5 tens 7 ones, 58 ones is 5 tens 8 ones, 59 ones is 5 tens 9 ones, 60 ones is 6 tens, 61 ones is 6 tens, 1 one.

Continue, adjusting to practice with the switches, numbers, or number form that students find most difficult.

Lesson 12

10 More/10 Less (2 minutes)

T: I'll say a number. You say the number that is 10 more. Wait for my signal. Ready?

T: 50. (Signal after each number.)

S: 60!

T: 90.

S: 100!

T: 130.

S: 140!

Continue with 10 more, then switch to 10 less.

Lesson 13

100 More/100 Less (1 minute)

T: I'll say a number. You say the number that is 100 more. Wait for my signal. Ready?

T: 70. (Signal after each number.)

S: 170!

T: 200.

S: 300!

T: 480.

S: 580!

T: 900.

S: 1,000!

Continue with 10 more, then switch to 10 less.

How Many Tens/How Many Hundreds (1 minute)

T: I'll say a number. You say how many tens are in that number. For example I say, "14 ones." You say, "1 ten." Wait for my signal. Ready?
T: 20 ones. (Signal after each number.)
S: 2 tens!
T: 28 ones.
S: 2 tens!
T: 64 ones.
S: 6 tens!
T: 99 ones.
S: 9 tens!
Continue in this manner, and then switch to asking how many hundreds.
T: 15 tens.
S: 1 hundred!
T: 29 tens.
S: 2 hundreds!
T: 78 tens.
S: 7 hundreds!

Lesson 14

Happy Counting Up and Down by Ones Crossing 100 (2 minutes)

T: Let's play Happy Counting!
T: Watch my fingers to know whether to count up or down. A closed hand means stop. (Show signals as you explain.)
T: We'll count by ones, starting at 76. Ready? (Teacher rhythmically points up until a change is desired. Show a closed hand then point down. Continue, mixing it up.)
S: 76, 77, 78, 79, 80, 81 (switch). 80, 79, 78 (switch). 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92 (switch). 91, 90, 89, 88, 87 (switch). 88, 89, 90, 91, 92, 93, 94, 95 (switch). 94, 93 (switch). 94, 95, 96, 97, 98, 99, 100, 101, 102, 103 (switch). 102, 101, 100, 99, 98 (switch). 99, 100, 101, 102, 103, 104, 105, 106, etc.

Lesson 15

Compare Numbers 0–99 Using <, >, = (4 minutes)
Materials: (T) 1 set of <, >, = comparison symbols (S) Baggie containing 2 sets of digit cards 0–9 per student and 1 personal white board with marker and 1 set of <, >, = per pair

Students are seated in partners at their tables.

T: Take the digit cards out of your baggie. Use the cards to build a number from 0–99. Take 10 seconds.

T: Compare numbers with your partner. Place the appropriate symbol (show <, >, =) between them.

T: Read your number sentence to your partner using the words *greater than, less than* or *equal to*. Then use the language of units to explain how you know the number sentence is true.

T: For example, you might say, "34 is less than 67. I know because 3 tens is less than 6 tens." Go.

S: 56 is greater than 23. 5 tens are greater than 2 tens. ⬜ 12 is less than 22 because 1 ten is less than 2. ⬜ 79 is equal to 79. I know because the tens and ones are the same.

T: Good. I'm holding our symbols face down. I'll flip one over and we'll read it to see which number "wins" this round. (Flip over a symbol and show it. This element of the game encourages students to diversify the numbers they make.)

T: Who wins?

S: Less than!

T: Yes, the number that is *less than* wins this time.

T: Let's play again. Players, use your digit cards to make another number.

Continue, following the same sequence.