|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Grade 2 Module 3: Place Value, Counting**  **and Comparison of Numbers to 1,200** | | | | |
| **Topic A: Forming Base Ten Units of Ten, a Hundred, and a Thousand** | | | |  |
| **Lesson 1** | [Meter Strip Subtraction: Taking Multiples of 10 from Numbers Within 10 to 100 **(2.2E, 2.2F, 2.4B, 2.9C)**](#Meterstripsubtraction) | [Skip-Count Up and Down by Fives on the Clock (2.2C)](#Skipcountup) | [Happy Counting: Up and Down by Ones from 95 to 121 (2.2C)](#HappyCounting) | [Skip-Count by Tens: Up and Down Crossing 100 (2.2C)](#SkipcountbyTen) |
| **Topic B: Understanding Place Value Units of One, Ten and Hundred** | | | | |
| **Lesson 2** | [Meter Strip Subtraction: Taking Multiples of 10 from Numbers 10–100 (2.2E, 2.2F, 2.4B, 2.9C)](#Meterstripsubtraction1) | [Measure and Compare (2.9A)](#Measureandcompare) | [Skip-Count Up and Down by Fives on the Clock (2.2C)](#Skipcountup1) | [Counting with Ones, Tens, and Hundreds: 0 to 1,200 (2.7B)](#Countingwithonestensandhundreds) |
| **Lesson 3** | [Sprint: Differences to 10 with Teen Numbers**(2.4A)**](#Sprint1) | [Counting with Ones, Tens, and Hundreds from 0 to 1,200 **(2.7B)**](#CountingwithOnesTensandHundreds1) |  |  |
| **Topic C: Numbers to 1,200 in Unit, Standard, Expanded and Word Forms** | | | | |
| **Lesson 4** | [Exchange to Get to 100 **(2.2A)**](#Exchangetoget) | [Meter Strip Addition **(2.2E, 2.2F, 2.4B, 2.9C)**](#Meterstripaddition) |  |  |
| **Lesson 5** | [Meter Strip Addition **(2.2E, 2.2F, 2.4B, 2.9C)**](#MeterStripAddition2) | [Unit Form Counting from 398 to 405 **(2.2B)**](#UnitFormCounting1) | [Think 10 to Add 9 **(2.4A)**](#Think1) |  |
| **Lesson 6** | [Place Value **(2.2A, 2.2B)**](#Placevalue1) | [Sprint: Expanded Form **(2.2B)**](#Sprint2) | [Skip-Count Up and Down by $10 Between $45 and $125 **(2.2C, 2.7B)**](#Skipcountup2) |  |
| **Topic D: Modeling Base Ten Numbers within 1,200 with Money** | | | | |
| **Lesson 7** | [Mixed Counting with Ones, Tens, and Hundreds from 1,200 to 0 **(2.2C)**](#MixedCounting1) | [Doubles **(2.4A)**](#Doubles1) | [Related Facts Within 20 **(2.4A)**](#Relatedfacts1) |  |
| **Lesson 8** | [Count and Change Coins to 30 Cents **(2.5A, 2.5B)**](#Countandchange1) | [Mixed Counting with Ones, Tens, and Hundreds from 1,200 to 0 **(2.2C)**](#Mixedcounting1) | [Skip-Count by Twos Beginning at 394 **(2.2C)**](#Skipcountingbytwos1) |  |
| **Lesson 9** | [Count and Change Coins from 85 to 132 Cents **(2.7B)**](#Countandchange2) | [Sprint: More Expanded Form **(2.2B)**](#Sprint3) | [Skip-Count by Tens: Up and Down Between 0 and 1,200 **(2.2C)**](#Sprintskipcountingbyten1) |  |
| **Topic E: Modeling Numbers up to 1,200 with Place Value Disks** | | | | |
| **Lesson 10** | [Rekenrek Counting: Numbers in Unit Form Between 11 and 100 **(2.2A)**](#Rekenrek1) | [Sprint: Addition and Subtraction to 10 **(2.4A)**](#Sprint4) |  |  |
| **Lesson 11** | [10 More/10 Less**(2.2C)**](#TenmoreTenless1) | [Sprint: Sums to 10 with Teen Numbers **(2.4A)**](#Sprint5) |  |  |
| **Lesson 12** | [Sprint: Place Value Counting to 100 **(2.2B)**](#Sprint6) | [100 More/100 Less  **(2.2C)**](#OnehundredmoreOnehundredless1) | [How Many Tens/How Many Hundreds **(2.2A)**](#Howmanytensandhowmanyhundreds1) |  |
| **Lesson 13** | [Sprint: Review of Subtraction in the Teens **(2.4A)**](#Sprint7) | [Happy Counting Up and Down by Ones Crossing 100 **(2.2C)**](#Happycounting2) |  |  |
| **Lesson 14** | [Sprint: Expanded Notation  **(2.2B)**](#Sprint8) | [Compare Numbers 0–99 Using <, >, = **(2.2C, 2.2D, 2.2E)**](#Comparenumbers1) |  |  |
| **Topic F: Comparing Numbers to 1,200** | | | | |
| **Lesson 15** | [Sprint: Sums—Crossing Ten **(2.4A)**](#SprintSums1) |  |  |  |
| **Lesson 16** | [Sprint: Sums—Crossing Ten**(2.4A)**](#SprintSums2) |  |  |  |
| **Lesson 17** | [Sprint: Sums–Crossing Ten **(2.4A)**](#SprintSums3) |  |  |  |
| **Topic G: Finding 1, 10 and 100 More and Less Than a Number** | | | | |
| **Lesson 18** | [Sprint: Differences **(2.4A)**](#SprintDifferences1) |  |  |  |
| **Lesson 19** | [Sprint: Differences **(2.4A)**](#SprintDifferences2) |  |  |  |
| **Lesson 20** | [Sprint: Differences **(2.4A)**](#SprintDifferences3) |  |  |  |

TEKS Grade 2 Module 3 Fluencies

Lesson 1

Fluency Practice (20 Minutes)

* Meter Strip Subtraction: Taking Multiples of 10 from Numbers Within 10 to 100 2.2E, 2.2F, 2.4B, 2.9C (5 minutes)
* Skip-Count Up and Down by Fives on the Clock 2.2C (11 minutes)
* Happy Counting: Up and Down by Ones from 95 to 121 2.2C (2 minutes)
* Skip-Count by Tens: Up and Down Crossing 100 2.2C (2 minutes)

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

Materials: (S) Meter strip (Fluency Template)

T: 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: (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 the following possible sequence: Slide from 0 to 32, and then take 20; to 36 and then take 30; to 78 and then take 50; to 93 and then take 40; and to 67 and then take 60

**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, 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: 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, 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. (While explaining, demonstrate sliding a 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 minutes!

T: (Starting from 4, slide a 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 a 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 students find most difficult, and use their cues to guide the practice provided.

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 one or two minutes, circulate and listen for responses. Use questioning strategies to support student communication and the level of their insights.

S: 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: 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: 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: I disagree. There are no little hands to tell you where to count and 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: Let’s count by ones, starting at 95. Ready? (Rhythmically point up until a change is desired. Show a closed hand and then point down. Continue, mixing it up.)

S: 95, 96, 97, 98, 99, 100, 101, 102. (Switch direction.) 101, 100. (Switch direction.) 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112. (Switch direction.) 111, 110, 109. (Switch direction.) 110, 111, 112, 113, 114, 115, 116, 117. (Switch direction.) 116, 115, 114. (Switch direction.) 115, 116, 117, 118, 119, 120, 121. (Switch direction.) 120, 119, 118.

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

T: Let’s skip-count by tens starting at 60.

T: Ready? (Rhythmically point up until a change is desired. Show a closed hand and then point down. Continue, mixing it up.)

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

Lesson 2

Fluency Practice (18 Minutes)

* Meter Strip Subtraction: Taking Multiples of 10 from Numbers 10–100 2.2E, 2.2F, 2.4B, 2.9C (4 minutes)
* Measure and Compare 2.9A (6 minutes)
* Skip-Count Up and Down by Fives on the Clock 2.2C (4 minutes)
* Counting with Ones, Tens, and Hundreds: 0 to 1,200 2.7B (4 minutes)

**Meter Strip Subtraction: Taking Multiples of 10 from Numbers 10–100 (4 minutes)**

Materials: (S) Meter strip (Lesson 1 Fluency Template)

Note: Keep students challenged and engaged by adding a new layer of complexity to the activity in this second round. The following are suggestions for how to adapt the sequence demonstrated in Lesson 1 to match students’ ability level. 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).
* 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 52 cm.

T: Now, slide down to 49. How many centimeters did you slide down?

S: 3 cm!

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

**Measure and Compare (6 minutes)**

Materials: (S) Meter strip (Lesson 1 Fluency Template), personal white board

T: (Write or post the sentence frame described in the box shown to the right.) I’ll name two objects, and you measure their lengths. Your goal is to determine how much longer one object is than another. Write the lengths on your personal white 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 one minute, 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 one minute, 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 the crayon, while the other student’s might be much longer.)

**Skip-Count Up and Down by Fives on the Clock (4 minutes)**

Materials: (T) “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 to adapt the vignette demonstrated in Lesson 1.

T: Skip-count by 5 until my finger stops. (Slide a finger to 4.) S: 5, 10, 15, 20.

T: (From 4, slide a 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 a finger at 9.) How many is 10 minutes less?

S: 35 minutes!

T: Good. (Put a finger back at 9.) How many is 10 minutes more?

S: 55 minutes!

**Counting with Ones, Tens, and Hundreds: 0 to 1,200 (4 minutes)**

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

T: Let’s count 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, and then switch. If you both finish before one minute is up, try it again and see if you get faster!

T: Let's start at 700. (Hold up a bundle of 100 until students count to 1,200.)

S: 700, 800, 900, 1,000, 1,100, 1,200.

Lesson 3

Fluency Practice (12 Minutes)

* Sprint: Differences to 10 with Teen Numbers 2.4A (8 minutes)
* Counting with Ones, Tens, and Hundreds from 0 to 1,200 2.7B (4 minutes)

**Sprint: Differences to 10 with Teen Numbers (8 minutes)**

Materials: (S) Differences to 10 with Teen Numbers Sprint

**Counting with Ones, Tens, and Hundreds from 0 to 1,200 (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., 90–130, 580–630, 980–1,100).

Lesson 4

Fluency Practice (12 Minutes)

* Exchange to Get to 100 2.2A (5 minutes)
* Meter Strip Addition 2.2E, 2.2F, 2.4B, 2.9C (7 minutes)

**Exchange to Get to 100 (5 minutes)**

Materials: (S) Dienes blocks: 12 ones, 10 tens, and 1 hundred per student; 1 die per pair Note: 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 provides support and may reduce anxiety for students working below grade level or students with disabilities.
* Students working 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 strip (Lesson 1 Fluency Template)

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.

Continue with the following possible sequence: 46 + 32, 65 + 35, 57 + 23, 45 + 36, and 38 + 24

Lesson 5

Fluency Practice (12 Minutes)

* Meter Strip Addition 2.2E, 2.2F, 2.4B, 2.9C (7 minutes)
* Unit Form Counting from 398 to 405 2.2B (3 minutes)
* Think 10 to Add 9 2.4A (2 minutes)

**Meter Strip Addition: With Two-Digit Numbers and Totals in the Ones that Are Greater Than 12 (7 minutes)**

Materials: (S) Meter strip (Lesson 1 Fluency Template), personal white board

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, and 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. (Signal.)

S: 38 + 36 = 74. Continue with the following possible sequence: 37 + 37, 45 + 28, 49 + 26, 68 + 28, and 57 + 29.

T: In each of these problems we had more than 9 ones, so we had to make a new ten. I will write an expression. Wait for the signal. Say, “Make ten,” if you have more than 9 ones. Say, “You can’t make ten,” if there are not enough ones.

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 white board, write as many addition expressions 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) Hide Zero cards (Lesson 4 Template 1)

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 Hide Zero 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.

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 6

Fluency Practice (15 Minutes)

* Place Value 2.2A, 2.2B (4 minutes)
* Sprint: Expanded Form 2.2B (8 minutes)
* Skip-Count Up and Down by $10 Between $45 and $125 2.2C, 2.7B (3 minutes)

**Place Value (4 minutes)**

Note: This fluency activity reviews place value concepts to prepare students for today’s lesson.

T: (Write 157 on the board.) Say the number.

S: 157.

T: Say 157 in unit form.

S: 1 hundred 5 tens 7 ones.

T: Say 157 in expanded form.

S: 100 + 50 + 7.

T: What is 50 + 7 + 100?

S: 157.

T: What is 7 + 100 + 50?

S: 157.

T: How many ones are in 157?

S: 157 ones.

T: How many tens are in 157?

S: 15 tens.

T: What digit is in the ones place?

S: 7.

T: What is the value of the digit in the tens place?

S: 50

**Sprint: Expanded Form (8 minutes)**

Materials: (S) Expanded Form 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.

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: (Respond in kind.)

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

S: (Respond in kind.)

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

S: (Respond in kind.)

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

S: (Respond in kind.)

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

Lesson 7

Fluency Practice (8 Minutes)

* Mixed Counting with Ones, Tens, and Hundreds from 1,200 to 0 2.2C (5 minutes)
* Doubles 2.4A (1 minute)
* Related Facts Within 20 2.4A (2 minutes)

**Mixed Counting with Ones, Tens, and Hundreds from 1,200 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 1,200 and count down. Ready? (Hold up a bundle of 100 until students count to 900.

S: 1,200, 1,100, 1,000, 900.

T: (Hold up a bundle of 10 until students count to 840.) If necessary, create visual support with the difficult language of these numbers by writing them on the board as students count.) S: 890, 880, 870, 860, 850, 840.

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 down to zero.

**Doubles (1 minute)**

T: I’ll say a doubles fact. You tell me the answer. Wait for my signal. Ready?

T: 5 + 5.

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.

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 two minutes.

Lesson 8

Fluency Practice (15 Minutes)

* Count and Change Coins to 30 Cents 2.5A, 2.5B (3 minutes)
* Mixed Counting with Ones, Tens, and Hundreds from 1,200 to 0 2.2C (5 minutes)
* Skip-Count by Twos Beginning at 394 2.2C (7 minutes)

**Count and Change Coins to 30 Cents (3 minutes)**

Materials: (T) 11 pennies, 3 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.

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, and 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? 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: (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 1,200 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. Another option is to isolate a sequence that 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 one 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 Module 1 Overview.

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 as with a Sprint.

Lesson 9

Fluency Practice (14 Minutes)

* Count and Change Coins from 85 to 132 Cents 2.7B (3 minutes)
* Sprint: More Expanded Form 2.2B (8 minutes)
* Skip-Count by Tens: Up and Down Between 0 and 1,200 2.2C (3 minutes)

**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. (Take note of students who have difficulty with this.)

S: 95 cents.

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 the practice in response to noticing where students have difficulty in the first counts. Remember to count from 125 to 132 using pennies.)

**Sprint: More Expanded Form (8 minutes)**

Materials: (S) More Expanded Form

**Sprint Skip-Count by Tens: Up and Down Between 0 and 1,200 (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 while explaining.)

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

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

Lesson 10

Fluency Practice (12 Minutes)

* Rekenrek Counting: Numbers in Unit Form Between 11 and 100 2.2A (4 minutes)
* Sprint: Addition and Subtraction to 10 2.4A (8 minutes)

**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 two 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, and 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 with the following possible sequence: Count down by tens from 97 to 37, and count down by ones from 37 to 25.

**Sprint: Addition and Subtraction to 10 (8 minutes)**

Materials: (S) Addition and Subtraction to 10 Sprint

Lesson 11

Fluency Practice (10 Minutes)

* 10 More/10 Less 2.2C (2 minutes)
* Sprint: Sums to 10 with Teen Numbers 2.4A (8 minutes)

**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.

S: 60.

T: 90.

S: 100.

T: 130.

S: 140.

Continue with 10 more, then switch to 10 less.

**Sprint: Sums to 10 with Teen Numbers (8 minutes)**

Materials: (S) Sums to 10 with Teen Numbers Sprint

Lesson 12

Fluency Practice (10 Minutes)

* Sprint: Place Value Counting to 100 2.2B (8 minutes)
* 100 More/100 Less  2.2C (1 minute)
* How Many Tens/How Many Hundreds 2.2A (1 minute)

**Sprint: Place Value Counting to 100 (8 minutes)**

Materials: (S) Place Value Counting to 100 Sprint

**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.

S: 170.

T: 200.

S: 300.

T: 480.

S: 580.

T: 900.

S: 1,000.

Continue with 100 more, and then switch to 100 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.

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 13

Fluency Practice (10 Minutes)

* Sprint: Review of Subtraction in the Teens 2.4A (8 minutes)
* Happy Counting Up and Down by Ones Crossing 100 2.2C (2 minutes)

**Sprint: Review of Subtraction in the Teens (8 minutes)**

Materials (S) Review of Subtraction in the Teens Sprint

**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 while explaining.)

T: We’ll count by ones, starting at 76. Ready? (Rhythmically point up until a change is desired. Show a closed hand, and then point down. Continue, mixing it up.)

S: 76, 77, 78, 79, 80, 81. (Switch direction.) 80, 79, 78. (Switch direction.) 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92. (Switch direction.) 91, 90, 89, 88, 87. (Switch direction.) 88, 89, 90, 91, 92, 93, 94, 95. (Switch direction.) 94, 93. (Switch direction.) 94, 95, 96, 97, 98, 99, 100, 101, 102, 103. (Switch direction.) 102, 101, 100, 99, 98. (Switch direction.) 99, 100, 101, 102, 103, 104, 105, 106.

Lesson 14

Fluency Practice (12 Minutes)

* Sprint: Expanded Notation  2.2B (8 minutes)
* Compare Numbers 0–99 Using <, >, = 2.2C, 2.2D, 2.2E (4 minutes)

**Sprint: Expanded Notation (8 minutes)**

Materials: (S) Expanded Notation Sprint

**Compare Numbers 0–99 Using <, >, = (4 minutes)**

Materials: (T) 1 set of pre-cut <, >, = symbols (Template 1) (S) Small resealable bag containing 2 sets of pre-cut digit cards 0–9 (Template 2) per student, 1 set of pre-cut <, >, = symbol cards (Template 1) per pair Students are seated in partners at their tables.

T: Take the digit cards out of your small resealable bag. 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 tens.
* 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.

Lesson 15

Fluency Practice (12 Minutes)

* Sprint: Sums—Crossing Ten 2.4A (12 minutes)

**Sprint: Sums—Crossing Ten (12 minutes)**

Materials: (S) Sums—Crossing Ten Sprint

In Topics F and G for the next 6 days of instruction, a blitz is done on addition and subtraction sums in preparation for Module 4. As the beginning of Module 4 draws near, the goal is to energize and hone students’ addition and subtraction facts before getting there

Lesson 16

Fluency Practice (12 Minutes)

* Sprint: Sums—Crossing Ten 2.4A (12 minutes)

**Sprint: Sums—Crossing Ten (12 minutes)**

Materials: (S) Sums—Crossing Ten Sprint (S) Sums—Crossing Ten Sprint Day 2 of our Sums and Differences blitz continues with another Sprint on sums and differences to 20.

T: (After students have taken the Sprint.) Tomorrow, we are going to do the exact same sprint. If you wish to take this home and study or practice to see if you can do the problems more skillfully, do so!

T: Take a moment to analyze the Sprint with your partner. It is arranged from the easiest problems to the hardest.

S: It starts with the 9+ facts. That’s easy! You make a ten! → Or, I just do it like a 10+ and do 1 less. → Yeah, and then it goes to the 10+ facts. Those are super easy! T: Raise your hand if you think you might do better tomorrow.

Lesson 17

Fluency Practice (12 Minutes)

* Sprint: Sums—Crossing Ten 2.4A (12 minutes)

**Sprint: Sums—Crossing Ten (12 minutes)**

Materials: (S) Sums—Crossing Ten Sprint.

This is the third day of the sums and differences intensive. Students remember the promise that yesterday’s Spring would be repeated today, and now they see that the promise has been fulfilled.. Start the session by asking them to remember how many problems they were able to finish the day before.

T: That is your goal. Everyone’s goal is different because we are not competing with each other but with…?

S: Ourselves!

T: Your personal best. That is what matters. Share with your partner at least one strategy you use for practicing your sums and differences.

S: (Share.)

T: Here we go. Take your mark, get set, think!

Lesson 18

Fluency Practice (12 Minutes)

* Sprint: Differences 2.4A (12 minutes)

**Sprint: Differences (12 minutes)**

Materials: (S) Differences Sprint

T: Yesterday was our third day of practicing sums. Time to move on to differences.

T: 5 − 3 is…?

S: 2.

T: 15 − 3 is…?

S: 12.

T: 7 − 1 is…?

S: 6.

T: 17 − 1 is…?

S: 16.

T: Discuss what you see happening. How do the simple problems relate to the subtraction from the teens? S: (Share.)

T: That is a clue to help you with today’s Sprint. Take your mark, get set, think!

When closing this fluency activity, remind students that the same Sprint will be given tomorrow.

Lesson 19

Fluency Practice (12 Minutes)

* Sprint: Differences 2.4A (12 minutes)

**Sprint: Differences (12 minutes)**

Materials: (S) Differences Sprint

T: Today is going to be a repeat of yesterday’s Sprint. Let’s do some related facts practice. If I say 6 − 2, you say 16 − 2 = 14.

T: 5 − 4.

S: 15 − 4 = 11.

T: 8 − 4.

S: 18 − 4 = 14.

T: 6 − 3.

S: 16 − 3 = 13.

T: Turn and test your partner for 30 seconds. (Pause.) Switch. (Pause.)

T: Okay. How many of you studied last night? Are you prepared to succeed?

S: Yes!

T: Take your mark, get set, think!

Once again, when closing this fluency activity, inform the students that the same Sprint will be given tomorrow.

Lesson 20

Fluency Practice (12 Minutes)

* Sprint: Differences 2.4A (12 minutes)

**Sprint: Differences (12 minutes)**

Materials: (S) Differences Sprint

Lesson 20’s Sprint is a review of the take from ten facts. This is in preparation for Module 4, in which students work toward mastery of the sums and differences to 20. Run a few extra copies to give to students to take home; quite a few will want to. For students struggling for fluency with these basic facts, find time if possible in the instructional day to time their improvement, or allow them to time themselves.