

Math: Grade 2, Lesson 4, Represent a three-digit number

Lesson Objective: Students will use bundling and place value mats to represent a three-digit number as groups of hundreds, tens and one in one way.

Practice Focus: Represent a three-digit number as groups of hundreds, tens and ones in one way.

TN Standard: 2.NBT.A.1


Teacher Materials:

- Craft sticks and pre-bundled groups of ten and hundred craft sticks
- Paper for drawing place value mats
- White board or paper to draw models and record quantities
- A prepared model of review, Post-It notes

Student Materials:

- Paper, pencil and a surface to write on
- The student packet for Math, Grade 2, Lesson 4 which can be found at www.tn.gov/education

Teacher Do	Student Do
<p>Opening (2 minutes)</p> <p>Hello! Welcome to Tennessee's At Home Learning Series for math! Today's lesson is for all our 2nd graders out there, though all children are welcome to tune in. This lesson is the fourth in our series.</p> <p>My name is ____ and I'm a ____ grade teacher in Tennessee schools! I'm so excited to be your teacher for this lesson! Welcome to my virtual classroom!</p> <p>Today we will be learning about representing a three-digit number in mathematics! Before we get started, to participate fully in our lesson today, you will need:</p> <ul style="list-style-type: none"> • Paper, pencil and a surface to write on • The student packet for Math, Grade 2, Lesson 4 which can be found at www.tn.gov/education <p>If you didn't see our previous lesson, you can find it at www.tn.gov/education. You can still tune in to today's lesson if you haven't see any of our others. But, it might be more fun if you first go back and watch our other lessons since we'll be talking about things we learned previously.</p> <p>Ok, let's begin!</p>	<p>Student gathers materials.</p>
<p>Intro (7 minutes)</p> <p>Yesterday, we made models using craft sticks and drawings. We built numbers two different ways: using only ones and then using ones and ten bundles. The models that you draw do not need to be perfect. [Draw a place value mat with ones,</p>	

<p>tens, and hundreds.] This is what my place value mat looks like. Can you draw one? [Pause.] Now let's add models of our ones, tens, and hundreds. [Draw a model of a one, a ten, and a hundred on the place value mat.] This is what mine look like. Can you draw yours? [Pause.] Remember that our models do not have to be perfect.</p> 	<p>Student draws place value mat and a model of ones, tens, and hundreds.</p>
<p><u>Teacher Model</u></p> <p>Please draw a model for the number 135. [Pause.] [Teacher has models ready to show 1 bundle of 100 sticks, 3 bundles of ten sticks, and 5 individual sticks and for the place value math that has a column for hundreds.]</p> <p>Now please write 135 with numbers and words that match your models. [Pause.] [Teacher has written these answers on model and covered them with Post-its. Remove the Post-its.] We could write 135, one hundred thirty five, 1 hundred + 3 tens + 5 ones, and $100 + 30 + 5$.</p>	<p>Student draws a place value chart and the models of 135.</p> <p>Student writes 135 in multiple ways.</p>
<p><u>Guided Practice</u> (18 minutes)</p> <p>Draw a model of 215 using as many bundles of hundred as you can. [Pause.] [Teacher models with craft sticks and then draws the representation.]</p> <p>Count the sticks that you drew. [Pause.] Now count them with me. 100, 200, 210, 215. Good! Now, write the number in a way that matches our models. [Pause.] The different ways we could write 215 are 215; two hundred fifteen; 2 hundreds, 1 ten, and 5 ones; 2 hundreds + 1 ten + 5 ones; and $200 + 10 + 5$.</p> <p>Let's do this again, but this time with the number 305. Draw a model of 305 using as many bundles of hundred as you can. [Pause.] [Teacher models with craft sticks and then draws the representation.]</p> <p>Count the sticks that you drew. [Pause.] Now count them with me. 100, 200, 300, 305. Good! Now, write the number in a way that matches our models. [Pause.] The different ways we could write 305 are 305; three hundred five; 3 hundreds + 5 ones; and $300 + 5$.</p> <p>Let's do this again, but this time with the number 171. Draw a model of 171 using as many bundles of hundred as you can.</p>	<p>Student draws the representation.</p> <p>Student counts the sticks.</p> <p>Student writes 215 in multiple ways.</p> <p>Student draws the representation.</p> <p>Student counts the sticks.</p> <p>Student writes 305 in multiple ways.</p>

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<p>[Pause.] [Teacher models with craft sticks and then draws the representation.]</p> <p>Count the sticks that you drew. [Pause.] Now count them with me. 100, 110, 120, 130, 140 150, 160, 170, 171. Good! Now, write the number in a way that matches our models. [Pause.] The different ways we could write 171 are 171; one hundred seventy-one; 1 hundred, 7 tens, and 1 one; 1 hundred + 7 tens + 1 one; and $100 + 70 + 1$.</p> <p>This time I am going to build a number. I want you to figure out what number I am drawing. [Teacher builds the number 445 on their whiteboard using the most hundreds and tens possible.] What number did I draw? [Pause.] You are correct, it is 445. Now, I want you to write 445 in as many ways as you can that match this model. [Pause.] The different ways that you could have written this number are 445; four hundred forty five; 4 hundreds, 4 tens, and 5 ones, $4 \text{ hundreds} + 4 \text{ tens} + 5 \text{ ones}$; and $400 + 40 + 5$. How many of these did you come up with? [Pause.]</p>	<p>Student draws the representation.</p> <p>Student counts the sticks.</p> <p>Student writes 171 in multiple ways.</p> <p>Student answers 445.</p> <p>Student writes 445 in multiple ways.</p>
<p><u>Independent Practice</u> (1 minute)</p> <p>Today we have practiced representing three digit numbers in one way. You sure did a great job! After the video, you will have some problems to practice on your own. Good luck and do your best!</p>	<p>Student completes independent practice.</p>
<p><u>Closing</u> (1 minute)</p> <p>I enjoyed doing some mathematics with you today! Thank you for inviting me into your home. I look forward to seeing you in our next lesson in Tennessee's At Home Learning Series! Bye!</p>	

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