

Math: Grade 2, Lesson 2, Represent a two-digit number

Learning Objective: Students will use objects and place value mats to represent two-digit numbers as groups of tens and ones in one way.

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

TN Standards: 2.NBT.A.1

Teacher Materials:

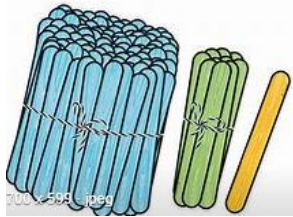
- Craft sticks and pre-bundled groups of ten craft sticks (at least 8 bundles of ten)
- paper to draw place value mats
- White board or paper to draw models and record quantities
- A prepared model of the Review
- Prepared models for tasks 4 through 6

Student Materials:

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

Teacher Do	Student Do
<p>Opening (2 minute)</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 second 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 two-digit number. 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 2 which can be found at www.tn.gov/education <p>If you didn't see our previous lesson, you can find it on 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>Okay, let's begin!</p>	<p>Student gathers materials.</p>
<p>Intro (4 minutes)</p> <p>Yesterday, we made models using craft sticks and drawings. We built numbers two different ways: using only ones and</p>	

then using ones and ten bundles. The models that you draw do not need to be perfect. [Draw a place value mat with ones, 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.**



Please draw 2 models for the number 18 on two different place value mats. [Pause.] **On the first mat, group the 18 ones by fives for easier counting.** [Pause.] [Show your model for 18 made up of ones.] **This is what mine looks like. On the second mat, show me how you use tens and ones.** **Remember that one ten is made up of a group of ten ones.** [Pause.] [Show your model for 18 made up of a ten and ones.] **This is what mine looks like. How did yours compare to mine?** [Pause.]

Now please write 18 with numbers and words that match your models. [Pause.] [Write 18, 18 ones, eighteen, 1 ten and 8 ones, and $10+8$ on the bottom of your place value mats. Show them to the students.] **These are all of the ways that I came up with to write 18.** [Read each answer.] **Did you come up with any other ways?** [Pause.]

Teacher Model (5 minutes)

I am going to model 27 so that it is easy to count. [Model 2 tens and 7 ones with craft sticks on the place value mat. Place the 7 ones in groups of 5 for easier counting.]

We can count by tens, fives, and ones. Let's count this by tens. 10, 20, 21, 22, 23, 24, 25, 26, 27. Great job! Now let's count to 27 by fives. 5, 10, 15, 20, 25, 26, 27. Very good!

How you would draw a model of this? [Pause.] **Let's draw it together!** [Teacher draws the place value table and then sketches 2 tens and seven ones.] [Show model.] **I have drawn a place value mat with two tens and seven ones.**

Student draws place value mat.

Student draws a model to match the teacher.

Student draws a place value mat with 18 modeled in ones.

Student draws a place value mat with 18 modeled in a ten and ones.

Student writes 18 in multiple ways.

Student answers.

Student counts along with teacher.

Student draws model.

<p>How can we write the number to match our model? [Pause.] [Write each way and explain as you write.] We can write 2 tens + 7 ones, 20+7, 27, and twenty seven. Did you come up with any other ways? [Pause.]</p> <p>Now, do 27 jumping jacks!</p>	<p>Student writes 27 in different ways.</p>
<p><u>Guided Practice</u> (18 minutes)</p> <p>Draw a model of 51 using as many bundles of ten as you can. [Pause.] [Model 51 with craft sticks.] I am going to use five bundles of ten to show 50 and 1 one to show the one. Now I am going to draw my model. [Draw the representation.] I drew a picture to match my model. Does your picture look like mine? [Pause.]</p> <p>Let's count the sticks together. [Pause.] 10, 20, 30, 40, 50, 51. Now let's count the models that we drew. [Pause.] 10, 20, 30, 40, 50, 51. [Pause.]</p> <p>Please write the number in a way that matches our models. [Pause.] To match our models, we would write 51, or 50 + 1, or 5 tens and 1 one, or fifty one.</p> <p>Clap your hands 51 times, really quickly!</p> <p>Let's do this again, but this time with the number 85.</p> <p>Draw a model of 85 using as many bundles of ten as you can. [Pause.] [Model 85 with craft sticks.] I am going to use eight bundles of ten to show 80 and five ones to show the five. Now I am going to draw my model. [Draw the representation, grouping the 5 ones like tally marks.] When I draw my ones, I am going to draw them like tally marks for easier counting. The group of five ones is not a bundle or a place, it just makes it easier to count. I drew a picture to match my model. Does your picture look like mine? [Pause.]</p> <p>Let's count the sticks together. [Pause.] 10, 20, 30, 40, 50, 60, 70, 80, 85. Now let's count the models that we drew. [Pause.] 10, 20, 30, 40, 50, 60, 70, 80, 85. [Pause.]</p> <p>Please write the number in a way that matches our models. [Pause.] To match our models, we would write 85, or 80 + 5, or 8 tens and 5 ones, or eighty five. Great job!</p> <p>Let's do this again, but this time with the number 71.</p>	<p>Students draw place value chart and 51.</p> <p>Student answers.</p> <p>Student counts with teacher. Student counts with teacher.</p> <p>Student writes 51 in different ways.</p> <p>Students draw place value chart and 85.</p> <p>Student answers.</p> <p>Student counts with teacher. Student counts with teacher.</p> <p>Student writes 85 in different ways.</p>

<p>Draw a model of 71 using as many bundles of ten as you can. [Pause.] [Model 71 with craft sticks.] I am going to use seven bundles of ten to show 70 and 1 one to show the one. Now I am going to draw my model. [Draw the representation.] I drew a picture to match my model. Does your picture look like mine? [Pause.]</p> <p>Let's count the sticks together. [Pause.] 10, 20, 30, 40, 50, 60, 70, 71. Now let's count the models that we drew. [Pause.] 10, 20, 30, 40, 50, 60, 70, 71. [Pause.]</p> <p>Please write the number in a way that matches our models. [Pause.] To match our models, we would write 71, or $70 + 1$, or 7 tens and 1 one, or seventy one. You are doing so well at this! Great job!</p> <p>This time, I am going to draw a number, and I want you to figure out what number I am drawing. [Draw a representation of the number 45 using the most tens possible.] What number did I draw? [Pause.] 45 is correct! Now I want you to write 45 in as many ways as you can come up with. [Pause.] Based on everything we have learned so far, we can write 45 in these ways: $40 + 5$, 4 tens and 5 ones, 45 ones, and forty five. Did you come up with any other ways? [Pause.]</p>	<p>Students draw place value chart and 71.</p> <p>Student answers.</p> <p>Student counts with teacher.</p> <p>Student counts with teacher.</p> <p>Student writes 71 in different ways.</p> <p>Student answers 45.</p> <p>Student draws 45 in different ways.</p>
<p><u>Independent Practice</u> (1 minute)</p> <p>Today we have practiced representing two digit numbers as groups of tens and some ones. 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 min)</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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