

Math: Grade 1, Lesson 2, Making a 10

Lesson Objective: Students will use ten frames as a strategy to solve addition based contextual problems with a focus on making ten.

Practice Focus: Addition strategies with a focus on making a 10 within contextual problems

TN Standards: 1.OA.A.1, 1.OA.C.5

Teacher Materials:

- Counters*
- paper and pencil, or white board and markers

Student Materials:

- 10 counters (like goldfish crackers, M&Ms, dried beans or macaroni, pennies, etc.)
- Paper and a pencil, and a surface to write on
- The student packet for Math, Grade 1, Lesson 2 which can be found at www.tn.gov/education

**Note: As the teacher is modeling these problems with a ten-frame, always count or fill in the ten-frame beginning with the top left and moving horizontally along the top row to the right, and then moving to the bottom left and moving horizontally along the bottom row towards the right. This will help students begin to recognize that each row always contains 5, so they can use this to group/subitize by 5s.*

Teacher Do	Student Do
<p><u>Opening</u></p> <p>Hello! Welcome to Tennessee’s At Home Learning Series for math! Today’s lesson is for all our 1st 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 Making a 10 in mathematics! Before we get started, to participate fully in our lesson today, you will need:</p> <ul style="list-style-type: none"> • 10 counters (like goldfish crackers, M&Ms, dried beans or macaroni, pennies, etc.) • Paper and a pencil, and a surface to write on • The student packet for Math, Grade 1, Lesson 1 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 seen 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 gets materials ready for the lesson.</p>

<p><u>Intro</u></p> <p>Today we are going to explore the making a ten strategy to help us with addition.</p> <p>Here's the problem we're going to work on together: Amelia the chicken laid 7 eggs in one week. Her owner needed 10 eggs for a recipe. How many more eggs will Amelia need to lay to have enough for the recipe?</p> <p>What are some ways that I could model this? [Pause.]</p> <p>Did I hear someone say to use a ten frame? [Pause.] Excellent idea! A ten frame has 10 spaces in it, so that will help me make ten!</p> <p>Do you remember how to draw a ten frame? [Pause.] Let's draw one together to make sure. As I draw, I want you to do the same thing I'm doing on your paper. [Pause.] Draw a big rectangle. Be sure to make it big enough that your counters will fit inside. [Draw rectangle.] Then, draw a horizontal line through the middle, and draw 4 vertical lines, like this. [Draw lines.] Don't worry, they don't have to be perfectly straight. How does yours look? [Pause.]</p> <p>When you are finished, you should have ten spaces inside. You count yours and I'll count mine. [Touch and count.] 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Great job! Hang on to this ten frame, because you will use it in other lessons, too.</p> <p>Now we are ready to solve our problem. Let's read it again.</p> <p>Amelia the chicken laid 7 eggs in one week. Her owner needed 10 eggs for a recipe. How many more eggs will Amelia need to lay to have enough for the recipe?</p> <p>I have my tens-frame ready. So what should I do first? [Pause.] Yes, I need my counters. How many of them? [Pause.] 7? Of course, because Amelia laid 7 eggs. Let's put 7 counters in our ten frames. Let's fill in the top row first. [Teacher places 7 counters in the ten frame starting top left and moving horizontally along the top row and then moving back to the bottom left to fill in the second row with 6, 7. Count out loud as you place counters.] 1, 2, 3, 4, 5, 6, 7. [Pause.] Did you put 7 counters in your tens-frame, too? [Pause.] Nice job!</p>	<p>Student answers.</p> <p>Student answers.</p> <p>Student draws along with teacher.</p> <p>Student answers.</p> <p>Student answers get counters. Student answers 7. Student places counters along with teacher.</p> <p>Student answers.</p>
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<p>Now let's read the second sentence. Her owner needed 10 eggs for a recipe. Hey! This ten frame has 10 spaces, right? [Pause.] So do we have enough counters for the recipe? [Pause.] No, we don't. So to figure out how many more eggs we need we should count the spaces remaining the ten frame.</p> <p>Follow along with your finger and count with me. [Touch and count.] 1, 2, 3. We have 3 spaces left. So does that mean we need 3 more eggs for the recipe? [Pause.] It does? Yes! We solved it!</p> <p>Wait a minute.... Does that mean that 7 plus 3 equals 10? [Pause.] It does? Great!</p>	<p>Student answers yes. Student answers no.</p> <p>Student touches and counts. Student answers yes.</p> <p>Student answers yes.</p>
<p><u>Teacher Model</u></p> <p>Let's clean off our ten frame and try another situation. [Pause.]</p> <p>Trevor's mom asked him to put 10 shovels of compost on the vegetable garden to help the vegetables grow. Trevor put 4 shovels on and stopped to pet his dog. How many more shovels of compost did he have to go? [Pause.]</p> <p>Wow! That must have been hard work for Trevor! Okay, let's look at the problem again. How many shovels did Trevor's mom ask him to put on the garden? [Pause.] 10 is correct. That's a lot! I think I can use my ten frame again to solve this problem.</p> <p>I know from the problem that Trevor has already put 4 shovels of compost on the garden, so I'm going to put 4 counters on my tens-frame to represent that. Will you put 4 counters on your ten frame, too? [Pause.] I want to make sure I am doing this right. Count with me. [Teacher places counters on the ten frame beginning at the top left and moving horizontally along the top row.] 1, 2, 3, 4.</p> <p>Great! Now what? [Pause.] We should count the spaces remaining? [Pause.] There are a lot more this time. Will you count with me? [Touch and count, starting with the final space on the top row.] 1, 2, 3, 4, 5, 6. So there are 6 spaces remaining in our 10 frame.</p> <p>So he started with 4 shovels and has 6 more to go to make 10 shovels. So that means that $4 + 6 = 10$! Wow, what a great help he is to his mom! Thanks for helping me think through that, students!</p>	<p>Students clean off ten frame.</p> <p>Student answers 10.</p> <p>Students put counters on 10 frame.</p> <p>Student answers count remaining spaces.</p> <p>Student counts with teacher.</p>

<p><u>Guided Practice</u></p> <p>Let's see what happens when Trevor finishes shoveling. Trevor's mom also bought 10 flowers to plant along the edge of the garden. Trevor's sister Susie is planting them for her. She has already dug 5 holes to plant the flowers in. How many more holes does she have to dig? [Pause.]</p> <p>This is a good time of year to work in the garden! Tell me, how many flowers does Susie have to plant? [Pause.] 10? Great! Let's clear our ten frame so we can use it for this problem, too.</p> <p>How many counters do I put on first? [Pause.] 5? Why 5? [Pause.] Oh, of course. Susie has already dug 5 holes. Okay, do this with me. [Teacher places 5 counters into the ten frame and counts.] 1, 2, 3, 4, 5.</p> <p>So how many more holes does Susie have to dig? [Pause.] Some of you are already saying 5 more holes! How do you know that? We haven't even counted the empty spaces yet! [Pause.]</p> <p>You know there are 5 spaces in that row? Let's count just to be sure. Do this with me. [Touch and count.] 1, 2, 3, 4, 5. You were right! Susie has to dig 5 more holes to plant the flowers.</p> <p>So a ten frame is set up with two rows of 5 spaces, and that means 5 plus 5 equals 10! Very cool!</p>	<p>Student answers.</p> <p>Student answers 10.</p> <p>Students clear ten frame,</p> <p>Student answers 5.</p> <p>Student answers that Susie has dug 5 holes.</p> <p>Student places counters with teacher.</p> <p>Student answers 5.</p> <p>Student answers there are 5 spaces in a row.</p> <p>Student touches and counts.</p>
<p><u>Independent Practice</u></p> <p>Great job students! Thanks for helping me use my ten frame to solve these problems. Now it's your turn to try some on your own. I'm going to read each problem for you and then you can work on your own after the show.</p> <p>Ok, here are 3 more problems we're going to solve now. [Pause.]</p> <p>TJ is trying to exercise more. She is riding her bike around the track at the park. Her goal is to go around 10 times without stopping. She has already made it around 9 times. How many more does she have to go? [Pause.]</p> <p>Cacie helped her mom bake 3 batches of cookies for school. They need 10 batches of cookies altogether. How many more</p>	<p>Student completes independent practice sheet.</p>

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<p>batches of cookies do Cacie and her mom need to bake? [Pause.]</p> <p>Riley wants to hit 10 baseballs in a row without missing. He has already hit 8 in a row. How many more does he have to hit in a row? [Pause.]</p> <p>Great work, boys and girls! Today we have worked really hard together to explore the making a ten strategy to help us with addition problems. You did amazing work with your ten frames.</p>	
<p><u>Closing</u></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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