Counting with Groups of 10 (Grade 1)

TEACHER: All right, I am super impressed by the way that you guys counted your popsicle sticks. My mom is going to be very happy that we have so many to give her. So I'll add all those numbers up later. Thank you for doing that.

We had people counting my two, counting by four, and counting by ten. Now, if we think about our target today, I have it here in our targets. Says, I will make a group of 10 to help me count. So we have it up here, too.

Why do you think mathematicians make groups of 10? Why do you think? Fabiana?

STUDENT: So if you want to count to a number, you can use either ten or if you want to make ten, you can either use circles or anything that you draw up there.

TEACHER: Yup. Up here, we can see we're going to count by 10, but why do you think mathematicians do that? If we think about when we count our days every day, and we look at our jellybeans up here, notice how this is organized Why do we do that? Why do you think Ms. Carolina wrote these numbers in blue over there?

What do we think? Why would we want to do that? Why did Ms. Carolina write these numbers in here at the end of the row? Brian, what do you think?

STUDENT: Um, because so we know what kind of days?

TEACHER: So we know how many days, yup. We do this so we know what day we're on, yes. Can someone add on to his thinking? Who can add on to Brian's thinking? Summer?

STUDENT: Shows us a there is a 10 on the top. And it shows us 10, and then it's 20. And 2 times makes 20.

TEACHER: Good. So she could easily see two rows-- 10, 20. Can we keep counting that way? Let's see. How many days have we been in school?

ALL: 10, 20, 30, 40, 50, 60, 70. 71, 72, 73, 74.

TEACHER: Was that fast? What if I said, let's count every jelly bean? And I said, OK guys, we'll start day one.

ALL: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

TEACHER: (SIGHING) I can't go on. It's too many. Nope, let's stop. Too many. It's taking forever, right? You don't have time for that. We have things to do. We have to get to our indoor recess.

Do you really want to be counting all day? How much faster was it if I said, 10, 20, 30, 40, 50, 60, 70. 71, 72, 73, 74. Done! Was that fast?

STUDENT: It's like, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

TEACHER: But we're counting big numbers now. We need to be able to start talking about these big numbers. And to do that we need to be able to count these big numbers.

So what you guys just was you helped me to figure out how many Popsicle sticks we had. And some of you used an organized way to do that. I think counting by 10 was the best way, because that's what people do. People use a bigger number, because we're using such bigger numbers.

So if I wanted to count my stars-- there's a lot of stars here. The first thing I want to do is make a group of 10. Because this is what we're doing today. We're making a group of 10.

So I'm going to be the first one. And then I'm going to look for some friends to help me. So, let's see, here are my stars. I got 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. So here's my group of 10.

Did you see how I counted again to make sure I was correct? I want to make sure when I'm counting I'm doing it accurately. So I have 10. Now it gets easy. Ready to count with me? 10, 11, 12, 13.

So how many stars are there? 13. So I'm going to write 13 here. And now I'd like someone else to come try our triangles. How many triangles do you see? I want to make a group of 10. Vito, come on up.

See how Vito was counting accurately using his fingers to make sure he was counting correctly? OK, let's count those. So how many do you have there? Are you sure?

See how he had to re-check to make sure we were accurate. Let's show everyone your picture. And show us how you would count that, Vito.

STUDENT: 10. 11.

TEACHER: Yep, that's it! 10, 11. Was that easy? Yes! So we're going to put 11 right here. And I'm looking for someone to count my squares.

Ian, would you like to come count my squares? OK, who noticed what Ian did first? What did Ian do first to make this easier for himself? Sophia.

STUDENT: He counted the squares.

TEACHER: Until he got to what?

STUDENT: 10.

TEACHER: So he counted to 10. And now how can you count after that, Ian? Can you do it out loud so everyone can hear?

STUDENT: 11, 12, 13, 14, 15, 16.

TEACHER: Beautiful. So how many squares are there?

STUDENT: 16.

TEACHER: 16. So he's got 10, 11, 12, 13, 14, 15, 16. Now Ian, I'm going to throw a curve ball at you. Ready? If I gave you this picture, could you write a number sentence for me?

STUDENT: 10.

[GASP]

TEACHER: He's so smart. Amazing! Can you write that right there for me, please? Can you move this way so everyone can see? And can you speak nice and loud and show everyone how you figured out a number sentence to match this picture?

STUDENT: First I counted all the squares until I got to 10. I circled it. And then I counted on and found out it was 16.

TEACHER: OK, so what are your addends over there? Is 16 an addend? What's 16? 10 and 6. And 16 is called the?

STUDENT: Sum.

TEACHER: Excellent job, Ian. So Bob is making his picture easier for himself to count.

STUDENT: I started with 10.

TEACHER: Count aloud.

STUDENT: 11, 12, 13, 14, 15, 16, 17.

TEACHER: Excellent. So what was your number sentence be there?

STUDENT: 10 plus 7--

TEACHER: Equals?

STUDENT: Equals 17.

TEACHER: Excellent. 10 plus 7 equals 17. Yep, perfect. Ella, can you tell me what the two addends are in that number sentence?

STUDENT: 10 and 7.

TEACHER: Nice job! And who can tell us what the sum is? Everybody on 3. 1, 2, 3.

ALL: 17!

TEACHER: Amazing, you guys are so smart. Is this easy or what?

ALL: Yes!

TEACHER: This is easy stuff. That's all you're doing today. You're practicing being a good mathematician, making counting easier for yourself by making a group of 10.

So your job today is going to be the front and the back. All you need to do you've got different objects here--thanks you, Bob, very much. You have different objects here.

Our directions say circle 10 objects in each set. So just what we did here. You're making a group of 10. Then you're writing the number of objects here.

If you can write the number sentence, I will be super impressed. So that's a challenge for you. If you could write the number sentence after you make a group of 10, I will be impressed.

If you finish this, and you want to be challenged even more, you've got two challenge sheets here. These are just challenges. You don't have to do them, but they're challenges. Do we want to challenge ourselves?

STUDENT: Yes!

TEACHER: So will Ms. Carolina be impressed if you challenge yourself?

STUDENT: Yes.

TEACHER: Is this included in this? You need to have how many more?

STUDENT: No, see. The number.

TEACHER: Show me a group of ten. Oh, that's included. OK, this line confused you. OK, so you have 10, 11, 12. So what would your number sentence be?

STUDENT: That would be two. 10, 11, 12.

TEACHER: Can I see some number sentences? OK, my dear. Show me what you got here. Can you count your group of 10 for me?

STUDENT: 1, 2, 3, 4, 5, 6, 7, 8.

TEACHER: What happened there?

STUDENT: It only went to 8.

TEACHER: Yeah, how many should it be?

STUDENT: 10.

TEACHER: 10. So go ahead and make sure it's a group of 10. Make sure you're counting carefully. There you go. So does that change your sum? How many umbrellas are there?

STUDENT: 12.

TEACHER: 12. Good. And let's see a number sentence. Nice job, Aidan. Don't forget your name.

Nice job, bud. Can you complete the challenge and do some number sentences for me? So what would this number sentence be here?

You've got a group of 10. And then you go your group outside. So in and out.

STUDENT: 10 plus 2 equals 2.

TEACHER: You've got 10 plus 2 equals 12. Cause you're 12 altogether. So I want you to write that here. And then I want you to do the next one on your own. Equals 12. Right here. Equals 12. You've got to write the whole number sentence.

OK, now your leaves. OK, so what's your number sentence? Excellent. Good. All right. You got it. Keep going.

How you going over here? You got number sentences? What's the number sentence here? What would that be?

STUDENT: I did them backwards. So I did the turnaround facts.

TEACHER: You did the turnaround facts. That's amazing. I want you to check the top one again. Beautiful, nice job. How you doing, Robert? Look at this side. Oh, yeah. Let's look in groups here.

Let's look at your umbrellas. Can you count those for me? Stop. Stop at 10. I want you to make a group of 10. OK, so you're going to circle 10 of them. So right here.

So to make a group like that, you have to do like you did here. Then it swoops around like that. So how many do you see on the outside?

STUDENT: This side?

TEACHER: Inside is how many? You made a a group of-- Look here, many in the group. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. Your group of 10. OK, so what's your first addend there?

STUDENT: 10?

TEACHER: Good. So I want you to go ahead and write your first addend.

STUDENT: 16.

TEACHER: OK, and what comes next in the addition sentence.

STUDENT: Plus.

TEACHER: Plus. Beautiful. And then how many are outside of the group?

STUDENT: 2.

TEACHER: 2. So you say 10 plus 2. Good. What's your sum?

STUDENT: 12.

TEACHER: Beautiful. OK. Now let's look at your leaves.

All right, I'll give you guys about two more minutes for this. Remember, if you're done, I asked you to get the challenge. You don't need to tell me when you're done.

So you're counting the number of 10s And write the number of 10s on the line. So here we have 1, 2, 3, 10s. And how many 1s is that?

So then you write the numbers here. 3, 5 would be 35.

STUDENT: Can I go to the bathroom?

TEACHER: No, Bob, I already told you about that. OK, let's stop. OK.

All right, ladies and gentlemen, what I saw-- most of us were doing-- all of us were doing-- an excellent, excellent job. We all were circling our 10s, which is great. I'm going to ask one person to come up to the document camera to do one for us, to show us what that looks like.

So I'm going to look to someone who is trying really hard and doing the very best that they could. And I saw they did a nice job. Someone who hasn't come up yet and who could speak nice and loudly for us.

Fabiana, come on up. All right, Fabiana is going to show us what she did to count the light bulbs. Go ahead, Fabiana.

STUDENT: I counted the light bulbs before. Well, I actually circled the light bulbs when I was circling it. Then I would make sure that I had a group of 10. Then I counted 10 more. Then I didn't have to count all of them, because I know 10 plus 10 is equal to 20.

TEACHER: Good, so you actually have two groups of 10 here. So could we have two circles? Can you take that purple marker and go ahead and make your two groups?

OK, So she's make-- oh, Bob, you listening? She's making two groups of 10 there. And you can circle your second group, Fabiana.

Cause it's hard to see with a pencil. Can you circle it with the marker on top? On top? Can you circle that group, too?

So Fabiana, tell us how quickly you could count how many light bulbs there are now. How would you do that?

STUDENT: I would say then 10, then 20.

TEACHER: 10, 20. And was that quick and easy?

STUDENT: Yes.

TEACHER: Yes. So nice job, Fabiana. Let's give her a round of applause.

[APPLAUSE]

You can go sit down. Thank you. So just to wrap up, friends. Our target today was I will make a group of 10 to help me count.

Why do mathematicians make groups of 10s? Why would you do that? Oh, goodness. I'm a little scared that there's only two hands. So I'm going to turn around and hopefully by the time I'm done turning, I'll see more hands.

So my question is why would a mathematician count by 10s? Oh, that's so much better. So many more hands. All right, let's see. Summer, what do you think?

STUDENT: Because it goes faster.

TEACHER: It makes counting faster. Good. Who can add on Summer's thinking? Aidan?

STUDENT: You can do math more quicker.

TEACHER: You could do math quicker. Fabiana?

STUDENT: Because it helps you solve the riddle quick. And so you can get done quickly.

TEACHER: You can get done quickly. And it makes it easier. So we're using an organized way to count. OK, guys? You did an excellent job today. I want you to you give yourselves a pat on the back. And I definitely felt warm and fuzzy again. just Jess, can you go grab a fuzzy.