

Problem of the Month: "Party Time"

Anna Yates School

Gallery Walk

### **YATES\_POM-GalleryWalkPart1**

00:06 Hi, my name is Brooke Menard, and I teach 5<sup>th</sup> grade here at Anna Yates. And my students partnered up with Ms. Miles' class

00:13 Which is a kindergarten class. And we all took about a month working on Problem of the Month,

00:18 And right now, we're getting ready to do a gallery walk, where all of the classes that participated posted their posters around,

00:26 And so my fifth graders are partnered up with the first graders, or kindergarteners, I'm sorry.

00:30 and they're going to go around, and the fifth graders are going to explain what they did in their process of thinking with the posters

00:35 And then the kindergarteners are going to explain what they did to my fifth graders.

00:39 My fifth graders have a list of questions they could answer if they want, on sticky notes, all the 5<sup>th</sup> graders have four sticky notes.

00:45 Along with their kindergarten partners, they'll go around, and put, maybe, looking to see how students were thinking about the math

00:51 What was challenging, maybe, about the math, or something that they really thought, maybe they got a different answer than the poster did.

00:57 So they'll write it on a sticky note, why did they get that, or how did they get that. So there are different things like that, and they're going to be working together.

01:05 That one? You like it? How did you solve the problem?

01:09 I really like Problem of the Month because it like teaches you things, and where it says "divide," well, it doesn't really say divide, but you really have to think of the words to know the problem.

01:24 Where it says, share, share—and share means to divide, and groups of means to, times.

01:35 I noticed about Problem of the Month is, when you go to Level A, it's easy, and then it gets harder and harder as you go.

01:44 Because on Level C, I really didn't get it at first, but then when we did it in class together, I kind of got it more.

01:54 I like Problem of the Month because it's like, it covers all the different parts of math, like we do one packet from March covered Geometry

02:05 and there were multiplication, and now it's problem solving with something... it relates to what, it gives us something that we can relate to.

02:16 That's what I like about all the problems.

02:18 What I like about Problem of the Month is that, um, when you start doing it and doing it, you understand what the problem is asking you.

02:29 And, on some of the times when we get to work with our partners, I actually focus more on the problem when I'm working with someone else.

02:43 Well, I really love a Problem of the Month, but sometimes it can be difficult, and sometimes it can be hard,

02:53 and you might not understand it, but the next second you understand what the problem is talking about

02:59 and sometimes you, you need to go through it with your strategies, and sometimes levels can be hard.

03:12 But you just, you just have to work through it and you might get it one day.

03:16 ..you feel awesome.

03:20 Because doing it all alone isn't helping me, so if I get help from a partner, they could actually explain it more, if I'm not getting it correctly.

03:37 Thank you for sharing that. Anyone else? These are all great comments.

03:44 When it gives us tricky problems ... and in the problem., sometimes you don't notice that it gives you multiplication, division and all other methods that you can use to solve the problems.

04:00 And ... and one strategy I use most of the time is, is dividing, and usually it helps you when I draw pictures.

04:15 I can learn new things every time I get a different packet.

04:18 Like what?

04:19 Like, multiplication and how to divide, and parties and things.

04:26 Mm hmm! Somebody else? What would you like to say.

04:31 Well, I like Problem of the Month because sometimes it's really difficult, it was really difficult at first,

04:37 But then when you do it all together, I start to get it some more.

04:43 You like that challenging aspect of it.

04:44 Mmm hmm.

04:46 This is fun, 'cause we get to read all the posters, all our posters.

GALLERY WALK SPLIT?

04:54 This was a party and ... they all had to go to Cindi's party, so...

04:58 You mean that's ours?

05:02 No, this is somebody's else's, but it's the same one.

05:05 How many people came?

05:07 Do you have a question about this one? What's your question?

05:14 8 boys.

05:17 And about two girls, three girls.

05:22 Okay. Let's go.

05:27 END OF CAPTIONS

05:45 Level B!

05:46 Okay. What do you see in the circle? Huh?

05:53 Words?

05:55 Words? What else do you see? I see fractions!

05:59 And fractions is when something is divided into equal or non-equal parts.

06:04 Okay! So could you show him what a fraction is? What equal parts are.. What those equal parts are?

06:16 So, example: what is that part with the boys? How much is that?

06:20 Right here? This is a half.

06:23 Which equals to 50%.

06:25 Yeah.

06:27 And then, right here is  $\frac{1}{4}$ . Of the whole circle is  $\frac{1}{4}$ , and...

06:35 And here's another  $\frac{1}{4}$ .

06:37 And then if you put them together,

06:42 There's four  $\frac{1}{4}$ ths!

06:47 So. There's four  $\frac{1}{4}$  ths, and four  $\frac{1}{4}$ 's equals a whole, which also equals to a half.

06:55 So four  $\frac{1}{4}$  ths equal to a half, plus this half, and it equals to a whole circle.

07:00 And then, it equals to 32. And that's the answer. You get it?

07:16 She invited , and those people invited four people, and each of those people invited three people, and over here invited three people,

07:23 And these people all up plus her are 35.

07:35 Do you have any questions about this one?

07:38 No?

07:45 Okay...

07:46 Can I take your guys' picture, in front of the poster?

07:54

07:57 Okay, come on.

07:58 It says,

07:59 No no no! This one.

08:03 Oh! Well.

08:07 Okay. So, Cindi, she invited them.

08:14 They invited three people, 4,5,6.

08:19 Then, he invited 1,2,3,4,5,6. And. You put all these and put together, this plus 3, plus 6 equals 9.

08:37 Then, they showed they work to explain how they got that. They did 3, 3, 3. 3 plus 3, 6. Equals 1,2,3,4,5,6,7,8. It equals 8. 3 plus 6 equals 8.

08:58 So that's how they got their answer.

09:02 And... this one, did you get this one?

09:11 Cindi...invited Shamara, and um...Marissa,

09:29 And...

09:34 (counting)

09:49 I learned that.. I learned that I want to be a good fifth grader.

09:55 You learned you want to be a good fifth grader.

09:58 I know!

10:00 For most of the problems, because, if you, if there wasn't any equation, how can you tell if they got...

10:07 How they got their answer?

10:10 So what equation helped you? An equation in particular?

10:13 Um...yeah, there's that one.

10:18 Because her people invited...

10:23 I'm sort of like... curious with theirs, when they did level uh, A? Because I know they didn't get to finish it,

10:30 But I liked it because they had all these different kids and different postures and everything.

10:37 Different kids and different postures? And did that help you?

10:40 Yes.

10:41 How?

10:42 Because if I see different kids and different postures, then I can see that all the people that they invited, and I can count all the different people.

10:49 Thank you.

10:51 One of the... speaking of (inaudible)... was that one? And I put it, I put that because ..

11:00 Because I got a different answer, instead of 32? And then I put it there, because I didn't know how they got that answer.

11:08 So, you asked them a mathematical question. On the sticky note. Thank you!

11:13 I put.. what did, Amari did not get, and what he did get. And if he didn't get it, I explained it to him very carefully step by step, to make sure he got it.

11:29 So you actually wrote a comment explaining the mathematics a different way?

11:33 Yeah.

11:34 On your sticky note?

11:35 Mm hm.

## **YATES\_POM-GalleryWalkPart2**

00:34 We did it different, we actually drew the people.

00:39 Okay, so explain the pie to me. What are you seeing?

00:42 Well, I can't tell because they didn't really explain the answer that much,

00:46 But like,  $\frac{1}{4}$  of people with long hair,  $\frac{1}{4}$  girls had short blonde hair,  $\frac{1}{4}$  had short red hair,  $\frac{1}{4}$ , and there was 8 girls and 16 boys.

01:00 So can you tell from their poster how many kids had the red hair?

01:05 Yeah, kind of ... 4. Well, it says  $\frac{1}{4}$ .

01:09 It says  $\frac{1}{4}$ . What's the  $\frac{1}{4}$  referring to?  $\frac{1}{4}$  of what number?

01:15 Um, 32 people.

01:18 Okay.

01:20 How did you solve the problem?

01:22 Well, we actually, um, I've got to track mine to see.

01:29 He said  $\frac{1}{4}$  of 32. He said this  $\frac{1}{4}$  stands, is  $\frac{1}{4}$  of the 32 people that went to the party. Do you agree with that? Disagree? Give me some signal.

01:41 Um, I says half, how could it be half? Because  $\frac{4}{4}$  is 1 whole. So I say how would that be half?

01:50 I'm hearing some snaps. So how could what be half?

01:53 Like the top, 'cause it says  $\frac{1}{4}$ ,  $\frac{1}{4}$ ,  $\frac{1}{4}$ , and  $\frac{1}{4}$ , so that should be a whole. And, um, two of those should be half. So. That's what I think.

02:08 Okay.

02:09 My question is ... that it has like, two things, like girls with the blonde hair, and girls with red hair, that have both short hair,

02:22 And then it said, um,  $\frac{1}{4}$  had short hair.

02:24 To me, the poster, they should have added the story to the poster so that people could understand it,

02:30 if like the people who never did learn the poster, what is the meaning of it, they should have wrote down the story to understand the answer and the problem.

02:39 Okay.

02:41 This  $\frac{4}{4}$ . Is, is representing what?

02:46 One whole.

02:47 One whole group of...

02:48 The 32 people.

02:51 Is this the girls, or the boys, or everyone?

02:53 Girls.

02:54 Everyone.

02:56 How about the fourths?

02:58 Girls.

03:00 So this? Is just the girls. So this whole, this  $\frac{4}{4}$ , would be the whole number of girls. Okay.

03:11 But I knew that one was kind of different, it showed me like different steps and diagrams how to do it,

03:18 Like they both are part in like, bar graphs, and they wrote on each step how they did it.

03:23 They showed each answer and like how, like who had short hair and who had long hair, they put the part and told each step

03:33 So we didn't do a poster, but the way we solved it we did it kind of different, but it showed a different way.

03:37 Okay.

03:38 But take 30 seconds and talk to me about the difference between this poster and this poster over here.

03:46 Now, I know the words are really small, so I'm going to talk about this for just a minute.

03:51 This is labeled "girls with hair," this is labeled "girls with short hair," and this is labeled "the boys"

04:05 This says 8, this says 4, and this says 16.

04:11 how does this relate to this poster? Is this clearer to you? Less clear? If so, what, and why?

04:18 It's like less clear, because it only has, like three diagrams of a fraction table, or...

04:26 And then, like because for 16 it has one half of a circle, which makes it confusing.

04:35 There's two pie graphs, with girls, and just a half of a pie graph with boys.

04:40 Girls with long hair? This is the girls with short hair, and this is the boys.

04:50 Knowing that, does it change how you're looking at that, the math?

04:54 I don't really get it, because there's 8 girls, and the full circle is filled, but when it says 16 boys, there's only half of the circle filled.

05:05 But like the 16 is more than 8.

05:07 This part of this pie graph, what would you label it?

05:12 I'm not sure.

05:15 This is what we're gonna do. We're gonna walk around the room, and we're gonna first have no talking. Okay?

05:22 And you just walk around and look at the posters.

05:26 And then I want you to find one poster, all by yourself, one poster, and answer two of these questions on the back of this paper.

05:41 So why don't you look the questions over right now, and maybe pick a couple, just circle,

05:47 Just circle the two questions that you're interested, that are interesting to you.

05:54 That you might like to respond to in looking at the posters.

06:02 ..um, presented would you like to explore farther? The last one.

06:06 The last one. What mathematics presented would you like to explore further?

06:11 Kind of a fancy question, huh.

06:14 Which poster do you want to explore more? Like if you find a poster that you really want to know what it's about,

06:23 You can go and write which one it is.

06:46 Somebody wrote some comments on your poster?

06:48 Yeah.

06:49 What'd they write? What are you thinking about it?

06:52 I'm really curious about this one, 'cause I thought that..

06:58 What's that one say?

07:00 Carol is in the bathing suit... I think.

07:05 And what are you thinking about that question?

07:08 I really think that Carol was in the superman, and that's what my partner thought. Her name's Asia but she's not here.

07:22 Yeah. That's what I thought.

07:24 So you want to study it some more, and think about it?

07:27 Yeah.

07:28 Or do you think ... are you wondering about whether your answer's correct or not?

07:33 Yeah!

07:34 So why don't you just talk aloud, and tell me what's going through your mind right now.

07:38 Well, um, I'm actually curious about my partner's one, 'cause this one it says Mia and Jake is Potato Head, are Potato Heads,

07:48 But what my partner thought was the French Maid was Mia, because she thought that a girl couldn't, a boy couldn't be a French Maid.

07:59 But I thought the French Maid was Jeff. That was the whole entire question, I was trying to figure out.

08:05 So where's your thinking? Where's your poster?

08:07 Here. That's my side, that's my partner's side.

08:10 That's your side. So why don't you explain your side to us.

08:12 okay. What I did is I wrote the facts, all the way up there, and the facts are like really ....good?

08:22 But the one that troubled me and my partner the most was the one that said Jake and Mia arrived and stayed together, and the one that says "the Potato Heads were always together at the party."

08:34 So I thought the Potato Heads were Jake and Mia.

08:37 Well, maybe they are. Are you rethinking it? Or..

08:41 No, actually I'm trying to stick with it,

08:44 Okay!

08:45 Because... 'cause if Jake and Mia arrived and stayed together and it says the Potato Heads were always together at the party,

08:52 Then that means that Jake and Mia must be the Potato Heads.

08:57 So you're thinking that your rationale makes more sense than this one here.

09:01 Yeah.

09:02 Okay. And then, getting back to the French Maid, even though your partner had Mia, and you had Jeff, tell me why you put Jeff, and if you're still comfortable with that answer.

09:12 I'm still comfortable with the answer, because everyone else were, had a part, except for Barbara and Jeff.

09:25 So it said, the first clue was that the last, not the first one, but Barbara was the last to arrive.

09:32 So I put her as sixth, and the only costumes that were left after I did that was the vampire.

09:37 So I thought Barbara was the vampire and Jeff was the French Maid, because he didn't have a costume yet, and everyone else did.

09:46 Okay. So getting back to this sticky, which you started talking about. "Carol is in the bathing suit."

09:54 Yeah, my mom actually...

09:57 What do you think?

09:58 'Cause if Ford is the surfer dude, and Carol is in a bathing suit, I don't really think that she's in a bathing suit. I think Ford is the surfer dude, and he's like in, like stretch pants.

10:12 And what did, what convinced you Ford was the surfer dude?

10:20 The facts told us. It says "Ford was the surfer dude."

10:24 Okay. We're just gonna put him in stretch pants, instead of a bathing suit. Okay.

10:29 Anything else you want to tell us?

10:31 Yeah. It was really hard when I had to figure out the numbers, because .... Right here? All of these numbers I had to figure out from the costumes, and who was what.

10:47 So I had to do the who, then the costume, and then the last thing I did was the number.

10:55 So you first figured out who was whom in the costumes, and then what order they arrived at..

10:59 Yeah, 'cause it was pretty hard when they said, when they were talking about Ford and Carol.

11:06 So you're confident with your order? Or do you want to change anything?

11:09 Mmm, I'm confident.

11:11 Okay! Thank you!

### **YATES\_POM-GalleryWalkPart3**

00:00 So what were the questions, and what were you talking about in whispers? You can go ahead and talk out loud.

00:04 Well, one of the questions right here is, I noticed that they used pictures, numbers and words to help them with the problem.

00:14 And this one says what was hard? And this one is "I love the diagrams."

00:23 How does it feel to have people commenting on your work?

00:26 Good.

00:27 What's good about it?

00:28 People like our work.

00:33 How about you? How does it feel to have people commenting on your poster?

00:36 It kind of feels good to me, because, like, usually I'm not really doing posters, because I'm not, I kind of like, to like draw and stuff?

00:48 So I'm not used to doing it on a poster, but seeing people comment, the poster that my group did, it kind of feels good to me.

00:58 What did you find mathematically interesting, which is 1,2,3,4,5, bullet point number 6.

01:06 I picked the same, see?

01:10 Do you have the same one?

01:11 Yeah.

01:12 Oh!

01:14 Can you show me that on the poster?

01:18 We did this one.

01:19 What I found interesting is that, that the pictures, look very nice, and I like the way they explained who was who.

01:32 Mine is ... I did "What did you find most interesting?" too, and I really liked how they did all the artwork,

01:40 But at the same time, they really drew the whole poster, they gave their thinking, even through the artwork.

01:47 What I found interesting was how they knew when each one arrived.

01:52 I liked how they wrote it, they said, like how Jeff, Jake, Mia, all the regular names are on the side, and they did their costumes on the other side,

02:01 And I really like how they did the pictures, how they did it in like, how they showed who came first, and stuff like that.

02:08 So Brea, I saw you writing some notes about this Level B poster.

02:13 And I'm curious about what you were writing about and what you were thinking.

02:19 Well, all of these posters actually say the same thing over and over again, and how they got 32,

02:27 And I think I have a pretty good idea how they got 32.

02:31 Okay...

02:32 So, so here's all the boys, but we're not really worried about the boys, but girls, okay.

02:40 So in it, they had, had red hair, they were trying to find out how many girls had red hair

02:46 But everything else, I got 8 too, and so, um, the girls with long hair, it was  $\frac{1}{4}$ , and 4 times 4. So if this is all 4, 1,2,3,4, 4, times 4 is 16.

03:06 And 16 plus 16 is 32. So I was thinking that they just broke 16 into fourths.

03:15 So the 16 is actually being broken into fourths.

03:18 Yes.

03:19 Not 32.

03:20 No.

03:21 Okay, so if we're talking about the 16 being broken into fourths, how many girls would be in each section?

03:32 Here?

03:33 If they were equal.

03:34 Here, it'll be 4, 4, 4, and 4. So they told us about these two,

03:40 and it was  $\frac{1}{4}$ , so that's 8, so we're actually just studying this half, so we want to block this half out.

03:48 Okay, when you say "block this half out," you're saying that if these two fourths, together are actually together one-fourth of...

03:57 Yeah.

03:58 Of what?

03:59 Of 32.

04:01 Okay.

04:02 'Cause 8 times 4 is 32, and 4 plus 4 is 8. So they are, in the passage, they had already told us about how many had long hair, and how many girls had short blonde hair.

04:17 So what we're really trying to find out is how many girls had red hair, and how many girls were left over?

04:24 And if there's, okay, so, if they said, half of the people at the party were boys, so when they say, like,

04:37 So if we just cut all this out like they're dancing and stuff, some people these and those, we could just have those two over there.

04:46 And if you break them up, because if you put both of those together, that'll be 8,

04:51 Both of these fourths, would be 8 together.

04:53 Yes.

04:54 Okay.

04:55 And half of 8, is 4. So they broke it up into four , and there were 8 girls left over, and half of 8 is 4.

05:05 So that's how many had red hair, and that's how many had long blonde hair.

05:09 Thank you.

05:10 ...and 4 plus 4 is 8. And that's how they got 8 girls, and the 32 is how many people there were.

05:19 So all of this here, all of these girls and boys equals 32.

05:23 Wonderful explanation! I liked the way that you talked out loud, and I could really understand your thinking about this diagram, the numbers, the fractions.

05:35 What do you think about this representation of the data? Did it help you? Did it confuse you?

05:40 Actually, when I first looked at this, I was like "Wow," These...and I read all the post-its first.

05:46 I was like, "All of these post-its say the same thing. Show your work, show your work."

05:52 Like this one, it says they didn't show their work, and I found a ton of it, saying "how did you get 32," and saying "show your work."

06:00 But actually I think I know how they showed their work, with this big ol' pie.

06:04 Thank you, Brea.