Bubble Gum Lesson

Teacher: Victoria Bill
District: Paterson Public Schools
Grade: 3

Share, Discuss, and Analyze Phase of the Lesson

Teacher: All right. So a lot of us thought that – who had the most?

Students: Carlos.

Teacher: And some of us thought that…

Students: Jamal.

Teacher: …Jamal had the most. Okay, so let's talk about that. Let's make this Carlos and let's make this Jamal. And let's compare them. Same, same, same, same size of gum, right? Can't make one bigger. That's a half. *(Teacher writes Carlos and Jamal beside two number lines and notes that both are the same length.)*

Students: Two-fourths.

Teacher: Ah, you know that, right? How could doing two-fourths help me get the rest of it? We call that a benchmark.

Student: You already know which ones the half of the whole piece, *[inaudible]* but one piece you have to find the half because you have to find another half.

Teacher: …And what will those tell you? Who knows? Go ahead.

Student: I think it's called one-fourth.

Teacher: So do you – what do you think?

Student: It's one-fourth because you have four equal parts. *(Teacher records one-fourth on the number line.)*

Student: So the bottom number has to stay the same always, and then you have zero, then it goes one, then it goes two, then it goes three, then it goes one whole. That is equal to four-fourths. That is an equivalent fraction. *(Teacher records two-fourths, three-fourths, and four-fourths on the number line.)*

Teacher: Oh, my goodness. Thank you very much. Okay, so how much? What part did Carlos get? This young man over here.

Student: Three-fourths.

Student: It equals three equal pieces.

Teacher: It equals three equal pieces. Where do you see the three pieces here? Want to come point to them? *(A student points to the space on the number line showing one-fourth, two-fourths, and three-fourths.)* Clap your hands if you agree with him.

[Applause]

Teacher: How would I show Jamal's?

Student: You would have to…Zero out of eight…

Teacher: All right, he's saying zero what? What kind of pieces?

Student: Zero out of eight.

Teacher: Not out of. Zero pieces that are called eighths. All right?

Student: You have to cut it up into eight equal pieces.

Teacher: He's saying cut it up into eight equal pieces. Okay. Oh, so you're showing me – oh, how do you know? Let me ask someone. How did he know to go right here? *(Student shows where one-eighth is on the number line in relationship to the one-fourth on the previous number line.)*

[For the next five minutes, the class continues to discuss the size of the eighths in relationship to the previous number line that is cut into fourths.]

Student: Right here.

Teacher: Right here. Okay, keep going. *(A student indicates where one-eighth, two-eighths, and three-eighths are located on the number line.)*

Student: And then the next one.

Teacher: All right, right here. And?

Student: Then the third one right here.

Teacher: Name this point. *(Teacher points to one-eighth on the number line.)* Let's go, someone. Everyone.

Students: One-fourth. One-eighth. *(Teacher records one-eighth on the number line.)*

Teacher: Name this one.

Students: Two-eighths. Three-eighths. Four-eighths. Five-eighths. Six-eighths. Seven-eighths. One whole. *(Teacher records each fraction respectively.)*

Teacher: Or?

Students: Eight-eighths.

Teacher: All right. So where is Jamal's amount? Nice job. Oh, they want to clap for you. *(A student points to Jamal's portion of the gum as represented by six-eighths on the number line.)*

[Applause]

Teacher: All right. Are you ready? Here's Jamal's gum. And where's Carlos's? *(The teacher highlights three-fourths on the number line.)*

Student: Two-fourths.

Students: Three-fourths.

Teacher: Uh-oh. What?

Student: It's a tie.

Student: No, it's not.

Teacher: They said no, it's not.

Students: Yes it is!

Teacher: How could that be? Oh, my goodness.

[Crosstalk]

Teacher: Did you hear that? Someone is claiming that three-fourths and six-eighths are what? *(Teacher records three-fourths and six-eighths on chart paper.)*

Students: A tie. They're equivalent fractions.

Teacher: They're equal. They're equivalent. *(Teacher writes* $\frac{3}{4} = \frac{6}{8}$*.)* How could that be?

Student: I know.

Teacher: I don't get it.

Student: You can multiply or divide.

Teacher: Are you shocked? Look how many of you…

Student: You can multiply by two.

Teacher: All right. Wait a minute. Go ahead, Shatara. You could take – you're telling me you take this three-fourths and do what? Go ahead.

Student: Multiply it by two.

Teacher: He's saying multiply it by two. Take each of those four pieces and do what? *(Teacher records* $\frac{3}{4}$ x $\frac{}{2}$*.)* If he's multiplying by two, what's going to happen? What's gonna happen if I make this…and multiply it by 2…multiply it by two, two, two. What's gonna happen? *(Teacher points to each of the fourths on the number line.)*

Student: It's going to turn into –

Student: It's going to be two times bigger.

Teacher: Yeah. It's not going to get bigger.

Student: It's going to get smaller.

Teacher: Two more pieces in there, right? So watch. One, two, help me. One, two, one, two, I have to do it to all four, because you said multiply by two. *(Indicates that each fourth is cut into two pieces.)* My question is, when I multiply all four by two… What happened to Carlos's three pieces? *(Points to the four in three-fourths and then points to the three in the three-fourths and then points to three-fourths on the number line.)*

Student: Wow, that's a good question.

Teacher: [*laughs*]. That's a good question. What happened to his three pieces?

Student: The pieces got smaller because…

Teacher: Ah-ha. Say more.

[End of Video]

