

## **PROBLEM SOLVING: BUBBLE GUM CONTEST**

CINDY HERMIDA: You, ladies and gentlemen, have a special letter from the president of this brand-new bubble gum company. The boss of this company wants to have a bubble gum contest to sell our new product.

LINDA GOJAK: So this is an excerpt from a third-grade class in which the students have been given the task to blow bubbles and collect data about the bubbles that they blow from bubble gum. It is a great example of Standard for Mathematical Practice 1 – making sense of problems and persevering in solving them. The rules of the contest are: you will get one piece of bubble gum, okay, and the people who can blow a bubble in 20 seconds or less, from start to finish, win the contest. And, of course, the winners of the contest get a whole pack of our brand-new bubble gum. And... begin.

STUDENTS: Go! Blow it, blow it. Haley, go! Chew, chew, chew! Chew!

HERMIDA: Time.

KID: Haley blew a bubble.

GOJAK: Once the students have tried blowing bubbles themselves, they're off to the other classrooms to continue to collect data, determine how to represent it, and then draw conclusions from that data.

STUDENT: All right, Justine's going to explain our test and our different...

STUDENT 2: Okay, um, what we're in here for is we're doing a bubble gum test and...

STUDENT 1: Because in math we have decided to open a bubble gum company.

STUDENT 2: Yeah. And everybody gets one piece of bubble gum and

they... there'll be a checker and a chewer and those people will... the checker will watch the person to see if they make a bubble.

STUDENT 1: And you have to blow a bubble in 20 seconds, and that's all.

(students talking at once)

STUDENT: We're still not done because we have to do the other people. Stop. Thank you. Thank you.

HERMIDA: Okay, let's have the recorder from each group share what they got. Um... Mara, what did you find?

STUDENT: Six people blew bubbles out of 20.

GOJAK: What's interesting about this problem is that it's highly motivating in and of itself. Although the task is given to students, they're not told how to solve it, how to collect the data or how to represent that data. The other part of the task is that once the students have collected and analyzed the data, they need to write a letter to the president of the bubble gum company sharing their findings. This is a good example of an authentic task.

HERMIDA: Boy, does anybody notice anything about the results we're getting so far?

STUDENT: They're all littler than one half.

HERMIDA: They're all smaller than one half. Let's see if it keeps up that way.