MALLORY WILLIAMSON: So, the first thing I'm going to ask you to do is there is a handout on your rollie cart, instead of doing this in your journals, we're going to do it on the handout so that we have some tangible data. All right, so the first thing I'm going to do is I'm going to actually show you a video. It's a short clip, and in this clip, I just want you to watch. Can you guys do that for me? You're not going to write anything down. I want you tracking the video. I want you observing what's in the video. After it's done playing one time, I'm going to then play it again. And the reason why I'm having to play it again, is so that during that time, Caden, you guys can write down any questions that you might want to ask as a mathematician or anything that you wonder. Okay? All right. So. here's the first clip.

[video plays silently]

MALLORY WILLIAMSON: Okay, now that you have a few questions, what I'd like you to do is I'd like you to turn to someone who's, like, your shoulder partner, side by side, with a group of three, you guys can talk to each other, and with one person speaking at a time, share at least one observation or one question that you have. If you as that shoulder partner really like that question, go ahead and record that question, okay? So, go ahead and share one question with your groups.

STUDENT: How many sugar cubes are there? That's my main question.

STUDENT: Same. That's what I, I said how many sugar cubes are in all?

STUDENT: Mm-hmm (affirmative).

STUDENT: I did that and I did what, what is like volume of the box.

STUDENT: That's a good one as an option.

STUDENT: I also put how much does each one cost out of, like, the whole thing?

STUDENT: You guys wanna add, like, the second one, pick one?

STUDENT: Um, I made an observation sugar just put into a cube.

STUDENT: I also asked, um, why he showed the side of the box, 'cause you know how, like, he showed the side of it, that was, like, weird for me. I'm like, what? So that confused me.

STUDENT: I had the same one. Another one I had was how much does the box of sugar cubes cost?

STUDENT: We were on the second one, like, the second question that we had. I put, why did he show the side of the box?

MALLORY WILLIAMSON: Okay, so maybe we're going to do something with that side of the box in the future, 'cause if he definitely puts it in that particular clip, it might refer to the next clip that we're going to see or something that we're going to do with that clip.

STUDENT: ... the width and the height.

MALLORY WILLIAMSON: Okay, so the width of the box and the height of the box, and I, I like where your train of thought is going because he's showing you different sides of the box and then he's also showing you this small cube, so the first question that you guys all kind of really went to is how many cubes are going to go into the box. And then when you bring up the width of the box or the height of the box, well, then maybe they relate together. Maybe that's going to be one of our focus questions, okay?

STUDENT: Or we can also figure out the width and the height of the sugar cubes-

MALLORY WILLIAMSON: Yeah.

STUDENT: ... estimate how much is in the box.

MALLORY WILLIAMSON: And why would that be important to figure out the width and height of the sugar cube as well as the box?

STUDENT: Because it would help us understand how much could fit in the box.

MALLORY WILLIAMSON: Yeah, how much could fit in that box. 'Cause if the volume of the cube is large, we may not be able to have as many cubes. If the volume of the box is smaller, we might be able to fit more cubes. So, that's a great relationship that you guys have discovered early on, okay?

MALLORY WILLIAMSON: Drake, can you share one question that you guys had about this clip?

STUDENT: How many sugar cubes are there in the box?

MALLORY WILLIAMSON: Okay. All right. Ciara.

STUDENT: Um, how much sugar does it contain?

MALLORY WILLIAMSON: Okay. So, when we talk about sugar cubes, I'm going to add on to this a little bit if that's okay with you. When we talk about how much sugar is it in the box versus how much sugar cubes, well, maybe we want to figure out how many, like, sugar cubes there are, however, how much sugar fits into a sugar cube or is made up of a sugar cube. So, that also can help you to see if there's a relationship there, okay? So, how much sugar is the cube made up of, okay? Roberto.

STUDENT: How many, how much of the cube dots will there be if you put it in fourths?

MALLORY WILLIAMSON: Okay. So, maybe how many groups of fourths are there? Angel.

STUDENT: Um, how many more sugar cubes are in the box?

MALLORY WILLIAMSON: Okay. So, that kind of relates to how many more sugar cubes are in the box.

STUDENT: How many calories are in-

MALLORY WILLIAMSON: Okay. So, maybe we could talk about, he did show us that side nutritional label, so maybe he's presenting something on that nutritional level, label, excuse me (laughs). So, maybe how many calories. And Izzy. When you say each one, are you talking about each box of sugar cubes?

STUDENT: Yeah.

MALLORY WILLIAMSON: Okay.