

MALLORY WILLIAMSON: This particular lesson is in the form of a Three-Act Task. A Three-Act Task is where a particular picture, video, or something is shown to the students to bring about questioning, and then bits of information is released a little bit at a time. So the whole part of a Three-Act Task is to see if they're able to reason through certain things or ask certain questions that help them solve bits of information that are needed for a problem. And it's not necessarily the focus on the solution, it's just having kids basically struggle with what they're trying to solve in order to find a solution, which is something that students aren't necessarily used to, they want to get the entirety of the problem and then quickly solve it and get it over with or they want to know right away if they're right or wrong and within a Three-Act Task, that doesn't lend itself to be true. So we're focusing on what kind of questions our students are asking and how we're providing feedback on their particular strategies to find a solution.

Within this lesson of finding volume, I think that based on prior knowledge, it's students look at a formula and can solve and plug in certain amounts with that formula. So the reasoning behind using a Three-Act Task for finding volume is to actually use a form of estimating with volume, reasoning through with spatial recognition and not just a particular formula. I'm taking a look at what they're doing that's not related to necessarily formula or an easy way to calculate volume, how they're getting their estimates, where are those estimates coming from, what connections are they making with what they see, with whether a picture or in this case a video clip in order to help them find an estimate of volume. A lot of the kids understand the concept that volume is the space inside of an object or how do we find that total amount, but they definitely don't understand the concept that volume is also base times height in which there are layers within that volume taking place so it's repeated addition.

Having them try to see if they can come up with different strategies to find volume instead of just plugging in a formula. I anticipate with these students when they're given an act to the face of the volume, it represents a layer. I don't know if a lot of those students understand or will understand what that means that there is a layer and that if you were to take away that layer, what would be behind that? I really think the students are going to understand that something is behind it because there are rows and columns, but oftentimes they're given a face or a layer and they're given the total volume and then they're going to have to find a missing piece. So it'll be interesting to see if they can take the information they've given and reason through to find a total volume. So a lot of the students are just going to throw out a number. And what I want them to do is kind of use what they have and go from there.