

5<sup>th</sup> Math BarMethod  
Pre-Interview

Interviewer: Okay, so why did you choose to teach this lesson?

Teacher: This lesson is actually stemming from the data team's process that we did on Friday. Looking back at their formative assessment from Thursday, we discovered that they are very good in their algorithm and computational thinking, but my students really need help with decoding problem solving. So after (laughs) some research over the weekend, I decided that I am going to try the Singapore Math Bar Model method, which actually fits in perfectly with where we are in math right now. We just finished up learning long division and we're going to switch into unit conversions, so the worksheet that I have for them today is a mix of 6 word problems: some division, some unit conversions. Just hoping to apply the bar model method with them.

Interviewer: What are the learning outcomes for the lesson? How are they related to that? Not just the problem.

Teacher: The learning outcomes ... I want them to just be familiar with the bar model, so we're going to introduce it through a simple division word problem first because that's something that they're familiar with. I'm going to be using a couple of multi-media tools. One being Khan Academy ... So one of Sal Khan's videos introducing unit conversion. I'm also going to be using something called Flocabulary, which is a website that makes rap videos to academic content. This one's specifically on the order in which the unit conversions go, so hecto, deca, that sort of thing, to help the remember the order for the units. And I'm hoping that through the introduction with a familiar method, that they'll be able to use this technique for any word problem that they're given, regardless of what the academic focus is.

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Interviewer: And how you describe this lesson as meaningful or useful or relevant to students' lives?

Teacher: This one would be meaningful and relevant to their lives, specifically because unit conversions is something that you need in the science field. That's where most of our jobs are going is into fields in science and if they don't understand which units to use and how to convert between them, then they're not going to be successful in any of their data gathering and tracking. So this is kind of like the building block for what might come next in their lives.

Interviewer: And what are the big questions you're using to drive student discussion?

Teacher: I think the biggest question is what is the metric system and how is it used in math and how does it possibly relate to the customary units that we have. So I kind of what them to see the connection. I also want them to ... The greater goal is practice the bar model method from Singapore math. So that I'm hoping that when they get any word problem, that they'll be able to apply this and be more successful at it.

Interviewer: And how are you planning to check for understanding or assess student outcomes?

Teacher: I'm going to be using click formative checks. So when they're sitting with me down on the floor, asking them questions, pausing videos to stop and check for their understanding, to ask for their predictions of what they think their answers are going to be. And then the very end, they're going to have a series of problems to solve on their own. And we will come back and discuss the answers and how they figured them out.

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Interviewer: And how would you describe this lesson as engaging for students?

Teacher: The lesson is going to be engaging just because the videos were not necessary intended to be interactive, but I'm going to make them interactive. The rap videos especially ... The kids ... I introduced it to them last year, so some of my students will know it, some of them won't. They love singing along to the makers of these videos even if they've only hear it twice. You know, I can hear them keep going and going going throughout the day humming the tune.

And the Khan Academy video, especially the way he uses his tools: the bamboo, writing instrument that allows him to do the digital writing and things, kind of allows for teachers to make it interactive as much as they want it to be. So they can either play the whole thing and let the students absorb what the lesson is doing. Or they can do kind of what what I'm doing, which is working on it with them, pausing at certain points, checking for understanding, seeing if they can solve the problem before Sal gives the answer. They kind of like to race each other, just to see who can, you know, who can get it. And then, I kind of challenge them by asking, you know, how they figured it out, how they ... Why the different opinion on what answers they're going to have.

Interviewer: And how do you plan to manage student behavior throughout the lesson, starting with expectations?

Teacher: I've planning to ... Plan to manage student behavior through just our normal learning agreements. So I'll be going over them before the lesson. Also going to be using something else that I've used in a previous lesson, which is behavior scouts. So they're going to be looking for students who are exhibiting good behavior and then being rewarded with like a ... We call it a dolphin ticket, so something they can spend at our school store and get prizes for and things.

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