

## **Math in Action**

### Growth Mindset

>> Paula says that from day one, creating a classroom environment that makes students feel safe and comfortable is key to building the foundation for inquiry learning.

>> I think it's important to create a safe environment for students to learn in. And I established that at the very beginning of the year, and I remind students throughout the year. First of all, we're all learners, including the teacher in the room. We're lifelong learners. So there isn't anyone that has the answer to everything. Everybody arrives with interests in different areas, strength in different areas. So it's important that we set the stage really early, that this is a safe place to take risks, that it's okay to say, "You know what? I'm just not there yet, and I need the support of my peers," or, "I need the support of my teacher to get there." So I think it's really important to have that culture established within the learning environment, so that you can have students moving forward and taking those necessary risks.

>> This is the safest place they're ever going to have to fail. By making it very transparent and open, that failure is okay.

>> But I feel like I should take more risks, fail harder. Because if you fail, you usually have that eager to get better, and that usually helps you be better than you were.

>> I usually get things. But when I don't, I just ask questions and learn from my mistakes.

>> But in other times, it could be, like, a normal guess. Like, you're just saying that, you said, "Find the answer."

>> For me, I think I should take more risks and ask more questions to the teacher to get more help, and maybe ask my peers if I'm stuck on something. But not, like, skip it.

>> Showing your students that it's okay to make mistakes relieves them from the pressure of getting the right answer, and allows them to engage in inquiry and discovery.

>> Thirty-eight.

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>> And I also acknowledge with the students, I don't know everything. We're all learning. And I think when they see, oh, it's safe for the adult in the room to say, "I'm

not sure, let's look it up. Let's find out," that it's safe for them as well to say, "You know, I'm not sure. I'm not exactly there yet."

>> It's safe to share their ideas, even if other people think it's wrong. It's nice to put that out there, make sure that you're trying to help as well.

>> Keeping a growth mind-set about math also helps students to stay resilient when tackling new units and solving new problems.

>> I already know what we're going to be doing in math. Miss Malloy announces it and everything. But then sometimes when we haven't gone into the unit yet, this shows me that, like, maybe if I'm scared about something, and I'm not sure and I'm uncomfortable, this shows me that it's okay to be scared, and that I'm going to be going through it. And it shows I just have to keep my head up and just keep going.

>> So it's really important, especially for students that are perhaps uncomfortable, or a little apprehensive with sharing their ideas, that this is a safe place to share your ideas.

>> Growth mind-set motivates students to know that learning is this process of coming to deeper understanding about a topic area. It's about believing in yourself, that you can do this, that there are pathways to move you forward, to be able to become better at something, and that it's actually a natural process. You know, when we are introduced to a new area, you know, you're introduced to the piano -- you are not going to be at this level. So the same thing. When we're introduced to grade four math, I'm not expecting you to be at this level. I'm going to put tools, I'm going to build a toolkit for you, I'm going to put things in place for you so that you are going to keep getting better, and I'm going to expect that you're going to be practicing it. So my expectations are high, because I believe in you. So I'm going to set these high expectations, but I'm going to also create this learning environment that makes you welcome. Like I was saying before, I'm going to create a compassionate space where everyone in this classroom is welcome. And I'm going to value all of your contributions. I'm going to create multiple entry points for my students. I'm going to value what you bring. I'm going to see you and see your strengths. Think about all of the things we face in our life, and how easy it is to go, oh, I'm not good at that. So I can't do that. And then there goes -- there the door is shut to that opportunity. But think about if you were in a school where you had had this growth mind-set, you've had some kind of philosophy where you actually believe in yourself. You believe that if you can't do it at the first attempt, you're going to try. You're going to keep at it. And that following interests actually leads to bigger things. And so if you are raised in this kind of environment that allows you to believe in yourself, then you're going to meet a lot of life's opportunities and life's challenges with resilience, with a belief that there are ways of reaching the goals that you would like to have to succeed. There are ways of working together with people, to get a bigger picture of things that are going on. There -- you know, the process, a lot of children in the classrooms that I've been, they're actually part of this

process of innovation. And so just understanding that going from the creativity of coming up with an idea to actually making that idea come to life, is a process that requires some teamwork often, and it requires effort. And so I think that these are qualities that are instilled in children, and well, in all of us. I think growth mind-set is about seeing the strengths that children bring to the classroom, and also helping them find strengths that they didn't even know existed, that they didn't even know they had.