

Math in Action

Edible Math

>> How many people have considered the amount of sugar that they're putting in their body through a snack or through a drink? You have? Okay. Yes?

>> Eating math was simply a provocation. So the idea is to bring interest to a concept. The eating math focus was just a snapshot of what we were doing in the measurement unit at that time. So we were focusing on units of measurement; milligrams, grams, kilograms, tonnes. So eating math was just to get the students to start thinking about math.

>> Wow, this is has 120 milligrams. So it's milligrams.

>> And we introduced that by putting up a board that said, "Eating math -- what do you think it's all about?" And students documented their thinking in advance to the focus.

>> Students shared how the Edible Math board expanded their thinking, and how they connected math to real-life experiences before the unit began.

>> Our teacher, Miss Molloy, asked us to express our emotions and feelings about eating math. And how do we feel, and what do we know about it? Our class has put up some ideas on how they feel eating math, or what they think eating math means. For example, they have some ideas like eating math means weighing food, eating math means going to the deli store, and made us have different life situations you would find eating math.

>> On your table, you will find some different packaging items that have different products. I want you to take a look at the packaging. I want you to take a look at the entire box and talk about it in your groups. I would like you to focus on the following, okay? When you're actually speaking with your peers, I want you to think about what information you're receiving when you look at that box.

>> As students studied the nutrition labels, they compared sugar content in the different foods they ate.

>> Yeah, it's 19.

>> It's supposed to be milk. So hot chocolate's supposed to be –

>> Yeah, but chocolate -- lots of chocolate also has a lot of sugar.

>> I don't think it should have that much.

>> It's tricky. Also, it says, "rich in nutrition."

>> I love the fact that we can look at all those products and see the nutrition facts, and then we also learn how much sugar there is in a cereal. It's actually sometimes really surprising about how much we eat or drink just from one small container. I feel like we're underestimating what we're actually doing, because a lot of us just think, oh, it's probably 50 calories or something, when it's actually 100 or 150.

>> They then wrote out some reflections on stickies.

>> So I would like you to take your ideas, and I would like you to think of them as, what do you see? What observations can you make?

>> They try to use as much decoration and colour as they can to make the items look delicious and good.

>> But most of the time, it's not. You need to be healthy.

>> What do you think? So when you look at this information, this data in front of you, what does that make you think of? Okay? So you might be making connections to mathematics, you might be making connections to your own experiences.

>> I think that if you don't have enough sugar, it could be a little bit bad for you, because sometimes some people have diabetes, and need to eat things that have natural sugars in them.

>> Then I would like you to also consider, how do you feel? Okay? So how do you feel when you are actually taking a look at the amount of sugar that might be in a product that you're eating every single day?

>> Me, I feel like there's more sugar in cookies than crackers, because usually, more adults like crackers than cookies. And then usually the cookies are always targeting the children.

>> And I also want you to consider at the back, what do I wonder? What do you wonder about this? What direction might you like this to go in?

>> I wonder, like, how much, like, since there's sugar in this, how much more sugar are in pop and soda?

>> That's a really good question.

>> Students wrote out their reflections on stickies and discussed them in small groups. This caused students to be invested deeply in their learning, as they set the path to discover the answers to their wonderings. The stickies also prompted student inquiry as they posed mathematical questions relating to measurement that also related to foods they consumed in their everyday lives.

>> Since there is so much sugar in juice, once we figure it out, it's, like, 25 grams. So all that's six packages. So and then if there's so much sugar in juice, how much sugar is in soda? That should be way more. For the sticky note that said, because it had a lot of sugar, and just how much in pop, we really wondered, because there's other stickies supporting that idea. For example, there's this one that said, "Since there is already six packages of sugar, has each four grams, so there's 24 milligrams in juice." And then there's still that natural sugar that they haven't added in. So how much in total? That just proves how much sugar in juice. And then for pop, there is -- it's way tastier, it tastes way better. There's all that fizz. We figured out that there has to be a lot of sugar involved for that to happen. So then we just thought, if there's already that much in juice, how much more is in pop?

>> Rich discussions allowed students to build off each other's ideas.

>> So when we got the stickies, we really just looked at the board, looked at the questions, discussed it with our groups and tried to add on other people's ideas to make a better statement or a question. Because usually, if you work by yourself, you may have a question or statement. But you really think that you're missing something, but you don't know what to add. If you have other people, it usually helps. I enjoyed sharing it because it's always nice to learn something new. And when we're in this classroom, you're always free to share ideas.

>> Students shared their reflections about eating math, and how they will apply this lesson to their daily food choices.

>> I thought that eating math can be a variety of things, like, the sugar content in your food, and all other contents in your food. Not only the ingredients that I used to think was important also.

>> I wonder if my diet's healthy. What I was thinking about was the food that I eat, and the amount of sugar that I eat. And sometimes it's not good for you. So I would use it to look at the foods that I eat, and be careful of what I'm eating. I think it's important to reflect on, because some people don't really consider what they're eating as a good food. Sometimes they don't consider about eating the food that they eat at all. Like, sometimes they think that, oh, I'm just going to eat this granola bar, it's not really going to affect my health and my life," when really it could have a large impact on how much food in the products and the food that you actually eat.