## AmbitiousScienceTeaching | Building scientific ideas with Interactive Read-Alouds (Teaching Channel Modeling Series)

[AUDIO LOGO]

**MICHELLE** 

The green color in the leaves help them to absorb or hold sunlight.

**SALGADO:** 

FALLON KING: An interactive read-aloud is when you, as the teacher, have pre-planned exactly what piece of the text you're

going to use and you have a specific teaching point that you're looking for. So you model for the students how

you are taking information. And then you give them an opportunity to try that on.

KAIA Today, when we read this book, we're going to be thinking how are these ideas the same, different, or maybe a

**TOMOKIYO:** new idea from what we had before?

MICHELLE When we ask students to model something, this is something that we see represented in books. It's part of our

**SALGADO:** everyday life-- modeling. We didn't focus on the entire book because a lot of science texts are information-rich.

There's a lot to go through. So, we pulled out just one page that included a model. We're going to read about

something you already know about, but we're going to look deep inside of a leaf.

**FALLON KING:** Today we started with an interactive read-aloud.

MICHELLE Chlorophyll gives the leaves their green coloring.

**SALGADO:** 

FALLON KING: We share just a piece of a book to talk to the kids about the importance of leaves and how they are structured to

give the tree energy and make food.

MICHELLE This is what the inside of a leaf looks like. Every single leaf on the apple tree has this inside of it. Isn't that

**SALGADO:** amazing? So, we have the veins. What do you guys think the veins are for? Go ahead and turn to your neighbor.

And if you want to hold on to a leaf to take a look. What do you think those veins in the leaf are for? Alyssa.

**ALYSSA:** Maybe it catches water.

**MICHELLE** I see some me toos. I heard that answer a couple of times. Anastasia.

SALGADO:

**ANASTASIA:** To catch sun.

MICHELLE It's not a lockstep drill kind of instruction. A lot more freedom. And we really do care about responsive teaching.

**SALGADO:** We want students to share ideas and questions that they have. Leaves are very important to the tree. You guys

know why. They make a kind of sugar that is the tree's food. Leaves need sunlight, water, and air to make this

food. Alyssa, did you have something to add on?

**ALYSSSA:** No, I have a question.

**MICHELLE** A question.

SALGADO:

How come the food is sugar not like healthy food like we eat healthy food to keep us alive, not go crazy when we ALYSSSA:

eat sugar?

**FALLON KING:** That's excellent question. Do you know how when you bite into an apple, it tastes sweet?

**EVERYONE:** Yeah.

FALLON KING: Well, an apple has a type of sugar in it. And so some foods have sugar in it that's good for your body. Just like the

tree needs some sugar that's good for its roots and its trunk and its branches and its leaves. That was a really

good question.

MICHELLE

Yeah, and it's always good to, when you read a book, to ask questions about it. Because maybe you don't always **SALGADO:** 

agree with what you read. So just like Alyssa did. That was excellent. Just that questioning of getting students to think critically, I think, is really important because it allows us to not just step back and accept everything, which

is really a life skill. We're going to add to our models. Let's see. I'm going to draw a big box. And I'm pretending

like it's a little-- it's like it's a microscope.

What we did focus on today was the zoom-out box and really thinking about looking in closely at a leaf. And so

that was something they saw in the literature. We drew on the board. Students came up. Multiple students

contributed their ideas to it. And so let's see if we can incorporate this in some way in our models. So you wanted

to have orange be the color of the food? And then label that so that we know what it is.

FALLON KING: We looked for students that incorporated that zoom-out box that we did in the beginning of the lesson. So there

were some kids that used it in the literal way of the way that we did in the lesson, and they zoomed out on the

leaf and they put the things in there that the leaf needed for energy. But then they took it a step further. So there was a student who did a zoom out of an apple and she showed that there were seeds inside. There were

the inner workings of the apple going through an animal and coming out the other side.

KAIA How did Arnold show hotness on his model?

TOMOKIYO:

TOMOKIYO:

TOMOKIYO:

STUDENT: He used red [INAUDIBLE].

**KAIA** Is that right, Arnold? After we looked at other students' models and they gave comments and questions about

the students' models, we looked at a model in a book. OK. So we're looking at the model in the book. And we're

trying to think, did that model remember everything?

MICHELLE This picture came from this book.

**SALGADO:** 

**KAIA** That was also important because we showed them that an author can write a book, but they might not include

> everything that you might include on your model. And so it showed them that we could also critique published work and showed them the difference between published work and the work that we're doing and tell them, hey,

it's the same thing. You're also making a model. What can we add on this model that might be different?

**STUDENT:** Then it goes into the other cloud. And then it drops water. And then it makes another cloud. And then it goes into

the new one. And then it goes down.

**MICHELLE** Excellent. I think you guys are ready to share out. Yeah.

SALGADO: