

## Teacher Commentary Transcript

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### CONNECT/ENGAGE

J: In today's lesson, the kids had the opportunity to investigate water pollution from a lot of different types of resources, right? You had iPads, iPods, the website, books. Talk about why you wanted that variety and what was your thinking in terms of all that?

A: We're in the digital age now, so my children are constantly using technology. So I think that really keeps them engaged and gets them excited about what they're doing. Our district has gone to a 1-1 correspondence with iPads in grades 3 and up. So they have to get ready and know how to use those tools when they get in those upper grades. So that's one reason I chose these tools. Second it keeps them engaged and excited, and a lot of the literature I found on this topic I knew was going to be difficult for them. I knew they would be able to get information from the headings and captions and pictures, but I knew they would struggle a bit, so I didn't want to just isolate in one type of resource. I wanted them to get information from multiple sources. Videos are a great thing for them. They're listening and watching and they can use those listening skills to pull out facts. With the website, they're manipulating and moving, and interacting. Most of it did work – we had a little hiccup but that happens with technology. So that would insure that if they didn't get something from the books, they're getting something from another source. And that's the age that we live in. Information is coming at us in all different ways and they've got to know how to use those sources and put it all together.

J: I thought it was interesting that they knew, when you asked them if they could watch the video more than once, that of course, so they understood

A: Multiple times. I didn't hear it the first time. It's OK, watch it again. The same thing with books. We read books over and over, because we may learn something the second time that we didn't see the first time with a new eye.

J: And then you also asked kids to do different things in the different stations. Talk about that. Maybe you can use one of these as an example. They haven't gotten to all of them yet.

A: I wanted to create a graphic organizer that I knew would be age appropriate for them, and meaningful for them as well. That they would be able to record their thoughts.

When I looked at the different sources I felt, how much could they get out of it. So the video might have had only two places for them to record and label, so they can present their ideas in multiple ways for different levels. Children are able to draw or they prefer to draw, or some children were able to write if that was their choice. And on the back with the text, I knew they would pull more out of that, there's a lot going on with the texts, so I put the 4 boxes there so they could draw and write from there as well. And then I want to try to synthesize all this learning. I knew some children would be ready for that while they were on their own, about how can we prevent this from happening, so I wanted a place for that learning to go on the sheet as well. Some children haven't gotten to that place yet, that's a next step as well. So all on one sheet, different ways for them to record it according to what they're interests or ability to do so.

J: And it seemed like you asked them some specific questions, like what are 2 ways the water gets dirty, but you also asked them for their own questions or facts they learned.

A: Anything they learned from the text, I wanted them to put it down. I didn't want them to lose that thinking, one so they could share with others and so I could see it as well, because I wasn't in all the places at the same time.

### **INDEPENDENT/COLLABORATIVE PRACTICE 1**

J: Talk a little bit about when you are conferring with them, when you're going around the room, what are you thinking about, and what are you interested in what they're doing?

A: I kept that question in the back of my head, about the different ways it gets polluted, so when I went to confer with the different children, some of them were kind of stuck with different things in the book, some of them were really focused on the water cycle. That's really interesting, I don't want to take away from that they're learning something cool, but hey, let's look at our question. Our question says, "How does it get dirty"? Can we find a section in the book that shows us that? So prompting them to find it on their own, and then when they do, if they're having a difficult time using the text features on the page, honing in on a couple of those that I think are very important, and that I think they're going to gain information from. "Hey, let's take a look at this, what do you notice, what do you see," and then let them lead the discussion. I don't want to sit there and say, "You need to read this, this is important." It's what do you notice, what do you see, and then go from there.

J: You're keeping those in your head, and bringing that back out

A: On the carpet, so everyone can see and learn from it as well.

J: Let's take a look at a few of these.

A: Another child loves illustrating and is very detailed in her pictures. She was working with another student and the text was kind of difficult and I think they hit a road block when I came and prompted them, hey, remember, we can get information from pictures. And she said, oh, yeah, and she saw a picture of a factory, it was a cartoon picture, clearly had yellow stuff getting dumped into the water which she drew, and we talked about the children swimming in the water had sad faces and sick faces and there was a dead fish. So they were able to infer that was chemical nastiness going into the water and it was having an effect on the people and the children and the fish. So that was cool that they were able to pull that out. I wanted them to see that it wasn't just litter in the water, it was chemicals as well. And I think I need to talk a little more about that, because chemicals is a very broad term, how did it get there, what's it doing there. Another student – he saw a farm. And he thought it was the tractor watering the plants but we read the caption and found out it was pesticides and fertilizers. He knew what fertilizers were, so I talked a little bit about pesticides that are bad chemicals that keep the bugs away. Would you want to drink those chemicals? He said, no. So learning that these chemicals are coming from multiple places, what they are, and that they know they are doing something bad. I think that's another next step we might want to work on a bit. A lot of people were finding that in their research.

J: This picture actually was really interesting because they saw a picture of a seal in a net, and I thought it was really nice that their thinking is – she said he wouldn't have gotten caught in the net if the people weren't throwing things in the water that they shouldn't be leaving in the water. So they are consciousness is really growing of what's going on. I think if they had looked at this picture just earlier on, all that cause and effect probably wouldn't have gone through her head.

A: I love that she shows that they're in distress. The features on the face.

### **INDEPENDENT/COLLABORATIVE PRACTICE 2**

A: One of the things from the last lesson that I really wanted them to pull out is that the water doesn't just get polluted from trash. When they think pollution, they think trash. It's also chemicals, it's also oil, and then one group got onto the one thing that I thought was cool. They wrote a question, "Do animals pollute the water?" They had the animals in there. And so when I prompted them – they already had the answer, yeah, they pollute with their poop. Exactly, they do. And then we got onto the discussion since one of the students has a dog, what does your dog do when you go for a walk, well he poops. What do we need to do? We need to pick that up. Would you want to drink water that had dog poop in it? Of course I wouldn't. That's something that's prevalent in this neighborhood, we have a lot of parks and a lot of dogs walking around, so I was really thinking for her, when she works on her project, this could be a good catalyst, that she could make some kind of sign or poster to tell people, hey, when your doggie goes to the bathroom, we've got to pick it up, because it's going to get into the water, and that's nasty.

A: E's. Where he took his thinking a step further. He got his thinking down through pictures, which he explained to me but then without any prompting whatsoever he took it to the next level. He told me that she was picking up the trash because these people were throwing the trash in the water and she had to pick it up because we need to help the future. (points to the work). I was, that's it, we've got it. We're done. It was from the website, it was on the computer. He had done the explore activity where they get to click on different ones and see what they are doing, good or bad, for the environment. So he saw two different things, someone throwing trash, someone picking it up and he put it all together, we've got to help. And that's what I want them to learn.

J: And that they're synthesizing it on their own, coming up with those things.

A: Yes.

## **SHARE**

J: Today when you brought them back to share, you had them share one thing they learned with their partner, and then you pulled out certain things you'd heard from different kids. So talk about that, how you're using what you're hearing when you're conferring with them when you get to whole group.

A: I get them the share (turn and talk) – that's the first reason, so I can pop in and hear what they've done when I wasn't around to hear them. It also gives some accountability to their learning if I'm going to share with someone else, it makes it more engaging, and they have a lot to share so I give them that time and opportunity. As I'm listening and walking through the room, I remember some key points that children had brought up that I really wanted to be pulled from the lesson before, specifically different ways it gets polluted and then that end goal. So when I heard children gathering those pieces today through the research, I wanted to bring them out whole group, so everyone could hear the different types of how it gets polluted because that answers our question, which I'll add to the chart – the different ways they told me today. And then I wanted them to see where this is going. So the children who had already synthesized that information, I wanted to share that with the whole group so the kids could see what's the next step in this research, why am I doing all this research, that it has an end project in mind.

## **REFLECTIONS AND NEXT STEPS**

J: So any tips that you have for teachers who are conducting a research unit like this?

A: Make it applicable for the kids. Don't just go draw something from a book or a hat that doesn't have meaning for them. Unfortunately the flood was a horrible thing that we had here in Columbia, but it sparked interest in my children. And when I honed in on their interest and saw what they were engaged in, I took that as a catalyst and grew off of it. So it came from something they were interested

in, not just something I had picked, something I wanted them to learn about. It was something they wanted to learn about. If it's something they want to learn about, they're going to be more engaged in it as well. So making it something that's on their interest level, making sure that you utilize different resources to help them along the way, and then having a meaningful end product that you are presenting to an authentic audience I think is very important as well, because if they're just creating something to show off to each other, well, that's cool, but if I'm having to teach the school about what I'm doing, other students in the building or the community, or we're going to put some of ours on the morning news, they're more interested in it. This has a purpose, a reason, I'm teaching other people, and again that brings in real life and I think it helps with their learning.

J: So when they come up with what to do about the water pollution, what formats are you going to use for that, and how are you going to share that?

A: We're going to start, I think I'll lead them into making posters. A lot of them said signs and things like that, so I think they're – they've seen signs before so they have some idea about that so I'll start with that first, in partners, and honing in on one way that water gets polluted and creating an activist sign to prevent that. I'd like to then take a step further and have a few of them be filmed presenting their posters. We have a morning news that airs every morning and that being presented on the morning news. And then inviting a couple of community members to come in who are involved with nature-based inquiry that I was involved with over the summer, they're professors at USC and some of them are involved with Richland County Stormwater Conservation, having them come in and listen as well. So it should be fun.

J: Yes, and they will certainly feel that –

A: I'm being listened to. I made a difference because I did something. This wasn't just a worksheet or something I had to do because Ms. Whitman told us we had to do this and it got hung up on the wall, which is fine, but it took it a step further. And they'll remember it. I've had parents message me, hey, they're telling me they worked with I-pods today, they're telling me to turn the water off, they're telling me not to spill things down the drain. Good, hey, they're taking it a step further. So I know it's making a difference in their lives, which is the main goal.