

Giving Meaning to the World

[Music]

^M00:00:22

>> The following video segments are intended to provoke your thinking, as educator teams, about learning. We invite you to position yourself in a learning stance, and consider these questions as you reimagine literacy and numeracy throughout the day.

^E00:00:38

Re-thinking Mathematics Structures

>> We've been talking about documentation with you, and sharing pictures of some of the amazing work that you've been doing. Yesterday, I came into the classroom, and Scott had this work. And I thought it was very thoughtful, the things he did. And I asked Scott if, if he would be okay if we shared this work, so that he can listen to you guys, what, what you think about it. Okay? So what kinds of things do you notice in Scott's work?

>> These right here, um, those are all C's.

>> They're all C's?

>> Yeah.

>> Do you want to find those?

^M00:00:52

[Background Sounds]

^M00:01:30

>> Monica?

>> That there, that there's squares on each one.

>> Okay. So its squares, I can write that down. There's squares. Thank you. Its okay, we're, we're all going to get a chance to share ideas.

>> There is jewels on some, and there's squares on some, and there's these on some.

>> Okay.

>> It goes in the rainbow order.

>> It goes in the rainbow order. What's the rainbow order?

>> Red, orange, yellow...

>> So we could write that. Do you want to come do that?

^M00:01:51

[Background Sounds]

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>> More jewels, there's less jewels here and more jewels there.

>> There's less here and more here. Okay, what do you notice about that, how do you know that that's less?

>> Because 1, 2, 3, 4. 4. And that's more.

>> How many?

>> I don't know.

>> How can you find out?

>> 1, 2, 3, 4, 5.

>> Count!

>> 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25. 25.

>> Okay. So you could, could you write 25 under that one and 4 under the other one?

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[Background Sounds]

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Is that one working? Do you remember how to write 25? Ask your friends for help. Do you want to write 25? You want to write 25 there? 2, 5?

>> Yeah.

>> See, that's what I did write, 2, 5.

>> Yeah. I like when you guys help each other learn.

>> Is that backwards?

>> Do you want to go check the numbers over there, on the other side, to see? You can walk over to our numbers and look.

>> 52.

^M00:03:59

[Silence]

^M00:04:05

>> Today, you know, during an experience, when a child had written the, she was writing 25 and she had written, you know, the 5 and the 2, and, and Tamara was documenting that experience. It wasn't necessarily the time to intervene and, you know, provide a correction, and, and I thought about, you know, what, what that would do to her confidence in that moment, but by documenting, we can really reflect on, you know, what would be an experience to offer her, tomorrow, that, that can help her to explore that?

^E00:04:44

Literacy and Mathematics Behaviours Throughout the Day

>> Jacob?

>> It goes biggest to smallest with the people.

>> It goes biggest to smallest with the people, up there.

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Matthew?

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^B00:00:12

>> The colours, um, in the rainbow, they're matched with the other things.

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>> They're matched with the, the other materials.

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Madison?

>> There's red, and then red, and yellow and yellow, green, blue, and blue and red.

>> So that's kind of a question, isn't it?

^M00:00:42

>> Because.

^M00:00:42:15

>> So he's put red.

>> Because that makes orange.

>> So why did, why did he do that?

>> Because red and yellow makes orange. Red and yellow makes orange.

>> So were there any orange squares?

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>> There was one big one.

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>> There was a big, orange square? Scott, is it okay if you, maybe, can you answer that question for us? Why did you decide to put those two on?

>> Um, because I needed some orange, but there weren't any orange squares. Two colours can make orange.

>> Okay, and then, what about the end?

^M00:01:30

>> Um.

^E00:01:32

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There wasn't any purple either, so I just put two colours, again, to make purple.

>> So you solved the problem, right? Scott had a problem and he had to think of a way to solve it.

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>> And he did.

^M00:01:50

>> And he did! Yeah.

^M00:01:51

>> Orange, orange, yellow, yellow.

>> Okay. So Monica's thinking it's almost like this is reflecting.

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>> Because maybe the sun was too -

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>> Reflection.

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That's a big word, isn't it?

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She's wondering if that's like a reflection?

>> There's diamonds.

>> Okay, what else do you notice?

>> There's stripes.

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>> Stripes.

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You want to draw the stripes?

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>> And they're made to look like her bottom, like circle at the bottom a little, and then there's spike.

>> Okay. So do you want me to write that?

^M00:02:51

Pyramids?

^E00:02:53

^B00:02:55

It's kind of like pyramids.

>> That was a good connection [inaudible].

>> That was a good connection. Scott, can you tell us about what's underneath those arches? What did you have underneath those arches, people have questions about that.

>> Underneath these are people.

>> So what, what were you thinking about when you did this work?

>> Um -- um people sleeping in other things.

>> They're sleeping? And what's this here? What's on the people?

>> Little blankies made out of these squares.

>> Oh, little, see that? He has little blankies made out of the squares. And what about the people up top?

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>> I couldn't have room for some of them, so I just made this.

>> Okay. And, and one, Scott, one question people had, so, in these, there's just one person with their blankie. But in the blue one, there's two. Will you tell me why you decided to put two there?

^M00:04:12

>> Um, because I needed the baby one to be in here, but there was -- but it didn't have a little space in, so I had to put the baby in with the brother in here.

>> Oh okay. So there was no room in the -- in the first one for the baby? So the baby got company? Thank you. We're going to continue to look at each other's work, just like all of this amazing work has been around, and you guys can give your perspective on each other's work.

Re-thinking Literacy Structures

[Music]

^M00:00:26

>> I have another story for you about three little pigs. You know this one!

>> Yeah, I love this.

>> And the big, bad wolf.

>> You're right. I'm going to need your help. Okay.

>> That's actually called the [inaudible].

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>> Can we do The Gingerbread Man, after?

^M00:00:45

>> You know what, we're going to talk about that after, but listen, I'm going to need your help. Help me count.

>> [In unison] 1, 2, 3.

>> Three little pigs were living in the forest. There was 1, 2, 3. And they wanted to build a house. And so the first one decided, hmmm, I'm going to build my house out of...

>> Sticks!

>> Straw.

>> Straw. So he began building his house out of straw.^M00:01:25 Look at that.^M00:01:26 Isn't that a beautiful house? And as he was building, this big, bad wolf came. And he said, [deep voice] little pig, little pig, let me in!

>> Not by the hairs [in unison] on my chinny, chinny, chin.

>> I'll huff and I'll puff and I'll blow the house in! Help me [blowing sounds]. Oh no! His house was not strong enough. So the second little pig, he built his house out of...

>> Sticks!

>> Sticks!

>> Sticks!

>> So he hammered away, and he built all day. I'm going to need your help. And guess what? Along comes the [in unison] big, bad wolf. And he said, [in unison] I'll huff and I'll puff and I'll blow your house in! Ready? [Blowing sounds] Still not strong enough.

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What is the strongest material to use?

>> Bricks!

>> Bricks.

>> Oh no, you got rocks.

>> Well, we're going to pretend these are bricks, okay? Because what do you know about bricks? What's their shape?

>> Like that.

>> But they're fatter.

>> Fatter.

>> If we blow it down that still counts, right?

>> Yeah, it'll blow down.

>> Do you think we could build a brick house and still blow it down?

>> Yes.

>> Do you think so?

>> So, guess what? Pig one, pig two, they had no home! So guess where they went?

>> In their house.

>> Into pig three's house, because he said, I've got the strongest home!

>> Can you build it bigger?

>> Bigger?

>> Yeah! Because he's going to knock it down.

>> Do you notice, do you notice how I'm building them? Okay, back to your spot please. Well, that's an idea that you could use when you're building your house. Okay? Now, this is an animal, and this is his home. What would we call that?

>> A habitat.

>> Habitat.

>> A habitat. Okay. Let's see what this wolf can do to the pig's habitat. Ready?

>> Yeah.

>> He knocks on the door [knocking sound]. Little pig, little pig, let me in!

>> [in unison] Not by the hair on my chinny, chin, chin!

>> I'll huff and I'll puff and I'll blow your house in! [Blowing sounds] Campbell, what would you say about the structure of this?

>> Well, when structures are smaller, it's harder to blow down, but when they're bigger,

it like tips more and it's more wobbly. So it's easier to blow down when it's bigger.

>> I challenge you to do that today when you're using the materials. Build it up higher and let me know if it changes the stability.

^E00:05:07

Negotiating Learning

[Background Conversations]

^M00:00:18

>> It's a reciprocal dance that is done amongst us and the children, more or less through questioning. And so, we will propose a question to them and they, they question us as well. So the importance of the questioning is really knowing your children. And it's a relationship, it's a relationship you have with the children, it's a relationship that you have with the team that you work with, it's a relationship that you have with the materials.

^M00:00:52

[Background Conversations]

^M00:00:58

Now is that the bigger base you're thinking about?

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^B00:01:03

Oh, it's not moving.

^M00:01:07

It's not moving.

^M00:01:10

But what happened to these materials when you put them?

^M00:01:12

[Background Conversations]

^M00:01:20

Are they too smooth?

^E00:01:22

^B00:01:25

They're too big?

^M00:01:26

[Background Conversations]

Re-visiting Pedagogical Documentation

[Music]

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>> Educational researcher, Steven Katz, encourages us to think about learning as a shift in thinking and action. Part of the shift in thinking and action, for educator teams, is to consider the powerful impact of revisiting documentation with the children in service of cold construction and knowledge building. Let's listen in to the educators from the previous video segments discussing the thinking that informed the classroom practice just viewed.

^M00:00:36

[Music]

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>> We've really noticed this year that the materials are taking on a language of their own. And, you know, if we, if we really simmer down our entire program, to two things, you know, lately, we, we're thinking it's about, you know, understanding and expressing, and understanding is about relationships, and, and understanding is about literacy and numeracy, and expressing is, you know, so much more than, than writing and seeing. And materials have really become a vehicle, for some students in particular, to be able to express very complex ideas with great clarity. And so we have one child in particular that has really moved us this year, and, you know, it's a child that...is hesitant to, to share his ideas orally in a group, and, you know, we kind of had this conversation this year, is he engaged in the learning? You know, because we weren't seeing this hand up and we weren't seeing this eagerness to share ideas in certain contexts. And, you know, when we really started to take the time to observe him throughout the day, we noticed, well here he is, you know, we were learning about spirals, and, and, you know, here he was at the easel, representing these spirals, and then, you know, a day later, he's using cylinder blocks, you know, in a very complex pattern to represent the spirals, and, you know, over and over we just started to see it everywhere. And we started to listen to that language of materials, and this child came to life, and, you know, you do want to share it, because you even came in one day, and this child who was previously shy, is, you know, taking Trudy by the hand and saying, come see, come see!

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Re-imagining Engagement

[Music]

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>> It's very interesting, because we had that great discussion about participation and engagement, and how we look at participation as being always the verbal participation, the students who are ready to answer very quickly, and then we started to think about those deep thinkers, and we had that conversation because we had a PLC, and we were talking about, you know, getting back to really watching, to see what, who and, was engaged, and how they were engaged, and so one time I came into the, the room and I always asked questions and get everybody riled up, and this time I just came in, and I sat. And this little guy came over to me and started to talk, very, very quietly. Very, very quietly at the beginning. So we had this very whispering type of conversation. The next time I came in, he came over and we had a conversation with voice level, but then he wanted to show me, that's when I was learning so much more about participation and engagement, and it came down to really just being quiet and listening. And the environment allowed for that happen, and what I love about the environment as being the third teacher is that it also makes each, every one of you, think about your environment, so you're always coming to me with ideas. So I get this, oh, if I give them money, I'm in big trouble, because [laughter] I always get this, oh, you should see what I want to order. And I go, okay. You should see what, can we order this, and then I go, okay, and I just know, just by their excitement in, in your voices and everything that you have that it's going to be amazing. Because you already know and, and have an idea that if you put this into the classroom, it's going to engage the students, it's going to be cooperative learning, you're going to have all of that, and so I just wait until I get invited down and, and see what is happening.

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Re-imagining the Learning

[Music]

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>> And I think it's those experiences that are helping us rethink what literacy is. And really expand our understanding of, of literacy. You know, because we see, we see stories emerging all the time throughout the day, and we see, we see language as far more complex than what we did in the past.

>> Absolutely.

>> I, I love it when all, you know, if I'm working across the room, and they'll say, Mrs. Bond [phonetic], you have to come and see this! And you go over to see this work that they've done, and, you know, at first glance, you're kind of like, um...alright what, and then when they start to explain to you what they've done.

>> It's very humbling.

>> It's very humbling.

>> And I find it hard to imagine now having things like math strands delineated, you know?

>> Or math centre or...

>> Well, I just.

>> It's, it's so much...

>> Everything has become so interwoven that it's really hard to separate the literacy and the numeracy into these compartments, because, you know, I think by doing that, we're actually depriving them of the opportunity to develop these relationships within their own learning.

^M00:01:28

>> So Charlotte had started this morning with a story of The Three Little Pigs, and she was using materials to tell the story. So she had three pine cones as the little pigs, and she had different materials to show their houses, and so it turned from the story of The Three Little Pigs into how do you build the strongest structure. Well, you know, there needs to be a strong base, when things are very tall, they can get tippy, so you have to balance them, and so it just moved totally from literacy to numeracy so seamlessly, and the kids were so engaged in, in all of it. In telling the story and the ideas of building and, so it was just, and...

>> Like we found when we're exploring these concepts with children, we often end up at, at the roots of numeracy and, and what I mean is we often find ourselves questioning what the children, why do people measure? Why do we count? Why do we have letters? You know?

>> Why do we write?

>> Why do we write? And I think having those experiences really helps children to discover the value in their own literacy and numeracy and, and really appreciate and celebrate their own learning, you know, in a, and they're, they're just discovering the important of those things.

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Re-imagining Literacy and Mathematics Behaviours

[Music]

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Re-imagining Assessing for Learning: Pedagogical Documentation

[Music]

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>> So one of the things that I'm thinking about and wondering about in listening to you is when you're -- you have all of this different learning taking place at all different times and like you said, it's hard to plan ahead and know exactly what direction it's going to go in because where the kids are going to take it isn't always where you think it's going to go. So your reflection in your documentation is a key part of that but where does the assessment framework sit within that and where does the curriculum sit within that so when there's so many things going on with so many different children and there's learning happening in all different areas, how do take that and kind of pull it together?

>> So that's when we observe and document, you know, we really try to pull just a wide variety of artifacts so that we can hopefully appreciate the many different ways that children will express their learning so, you know, when we first started, I think we really paid a lot of attention to their conversations and we still do but we've really expanded what we consider artifacts for documentation so that's one aspect that has changed. And, you know, then we really take the time to have conversations with each other and the children and almost a conversation with curriculum, you know, to look for relationships again. You know, and sometimes those relationships will be revealed in one source over another but it's through those conversations and reflections that we decide, you know, what to offer the next day. So, you know, for example, today, you know, during an experience when a child had written the -- she was writing 25 and she had written, you know, the 5 and 2 and Tamera was documenting that experience, it wasn't necessarily the time to intervene and, you know, provide a correction and I thought about, you know, what that would do to her confidence in that moment. But by documenting, we can really reflect on, you know, what would be an experience to offer her tomorrow that can help her to explore that, you know, so I mean documentation is very complex and is used for so many different things, you know, but it -- this would be an example of where it would help us to think about tomorrow and how we would respond to that.

>> I think you [inaudible] your documentation from where you were concentrated on doing the documentation to where the students now are documenting and so when the students are documenting, they're documenting their thinking. You can pull so many aspects of the curriculum into that as you look at what they're writing down and it's amazing when the kids read their documentation back to you how proud they are. So it has moved in many different circles and many different approaches. So even today, where the kids were doing their drawing from what they were finding, you were allowing them to come up and to express exactly what they were finding from the picture that you were looking at in front of the presentation that Scott had given you. So that, to me, has shifted because the documentation that you're seeing there is each and every child that was coming forward, their own representation of another child's thinking and then so all of that is being brought forward so there's many aspects of the curriculum that we saw present today and it's interwoven, again, it's -- we saw the math, we saw the language, we saw, you know, writing, we -- it was everything that we -- even the colour combinations of mixing two colours to get the colour that they couldn't find, the exact block for.

>> The first time we did something like that, when we really started to share

documentation with children and invite multiple perspectives, assessment for as and of learning really all came together in one experience and, you know, it's very easy for us now to look back, you know, and we always changed roles, like one us will be, you know, recording, thinking. It's very easy now to look back on that documentation and, you know, I think at the beginning, it was what to do after the experience and now it's like what not to do. There's so much there, you know, that really there's so many directions we could go to support their -- them in further learning, it's just deciding now the best place to go, you know?

>> And I think too, like [inaudible] talking about how they document their own learning, that's bringing self-assessment in every day, almost in everything that they do.

^M00:05:42

Reflections on Learning: Vivian Vasquez and Jerome Harste

[Music]

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>> I mean one of the things that we've talked about, you know, from the start is really how to engage with critical literacies using the interests of the children, using their lived experiences, using their inquiry questions and a lot of times, that doesn't happen from gathering them on the carpet and saying to them what are your inquiry questions. It's more a matter of being a very keen kid watcher and sitting back and listening to the conversations that they're having not just in the classroom but when they're in the cubby room, when they're in the playground, when they're waiting for the bus, when you're walking to the library. So all of those are opportunities to really listen and tune in to what the children's interests might be and then trying to figure out how to negotiate that into curriculum, so how do you then take that and turn it into these learning opportunities in the classroom.

>> So the first thing I think that teachers need to do is to value the voices of children.

>> I think a lot of people think that critical literacy or, you know, at least these are some of the conversations I've had with people is, you know, critical literacy, oh that's thinking -- that's about sort of higher order questions, higher order thinking; that's about, you know, thinking deeper. Well, it's not just about higher order thinking, it's not just about thinking deeper, it's about thinking more broadly. It is thinking about thinking deeper, as well, but it's about thinking about lots of different things in lots of different ways so that you are able to make those informed decisions. It's about taking up these issues of, you know, language and power and then imagining how things might be different.

>> You know, when you're doing the work that you're doing, think about there's lots of things we could be choosing do with children so what are the things that have real life impact and take those up.

^M00:02:04

Deepening Our Understanding: Literacy and Mathematics Behaviours at the

Water Table

>> As you watch the following video segments, we encourage you to try documenting what you are seeing and hearing without judgment. Learning is complex and dynamic. Viewing the video multiple times provides an opportunity for you to think about what you are seeing and hearing from a variety of perspectives. The following reflective frames may be helpful to keep you in an inquiring mindset and assessment for learning stance. When I saw, I am thinking this is evidence of, when I heard, I wonder if it means, when I saw, I am thinking it might be evidence of the conceptual understanding in overall expectation.

^M00:00:52

[Music]

^M00:00:59

>> How did you do that?

^M00:01:01

>> All i had to do was squeeze really hard and then it stayed with water.

^M00:01:06

>> I know what you do, you just pour water through here. That would be fun.

^M00:01:11

[Inaudible]

^M00:01:13

So you think you'll be able to fill it up here and the water's going to go all the way up to here? Okay, give it a try. Monica thinks that we can pour water through here and it's going to go all the way up into here. You don't think so? Why don't you think that's going to work?

>> [Inaudible].

>> It's hard for the water to climb up. Monica, why do you think that will work? So Matthew says he doesn't think it's going to work because it's hard for the water to climb up.

>> And there's a hole.

>> There's a hole there, that's a good thing you noticed that.

>> Yeah, well what if it goes through that? There's a hole at the back of it too.

>> That's true.

^M00:01:55

[Inaudible]

^M00:02:01

You could put this more over the water table.

^M00:02:05

>>And a funnel --

^M00:02:08

Pour water through there? Okay, okay, give it a try.

^M00:02:14

[Background noise]

^M00:02:24

Do you see the bubbles?

^M00:02:26

>>If you keep pouring more water, it's going to get heavier.

^M00:02:50

Deepening Our Understanding: Literacy and Mathematics Behaviours in Block Play

[Music]

^M00:00:05

>> Aidan remember this?

^M00:00:08

[Background Conversations]

^M00:00:27

>> I need to come [inaudible]. I'm visiting you.

^M00:00:32

>> Oh sorry. Got to come this way.

^M00:00:37

Got to come this way.

^E00:00:39

^B00:00:41

Got to come this way.

^E00:00:43

^B00:00:46

And don't go in my garage okay?

^M00:00:50

You're just visiting me right?

^M00:00:52

>> Hello.

^M00:00:53

>> Hello.

^M00:00:54

>> This is only for one snow machine.

^M00:00:56

That's what my sign says.

^M00:01:00

>> Hey, you want to come to my house? I have a big parking lot.

^M00:01:03

>> I do. I'm going with my snow machine.

^M00:01:08

>> My big parking lot's right here.

^M00:01:10

[Inaudible Remarks]

^M00:01:18

[Background Conversations]

^M00:01:23

>> I'm going to put my snow machine in the garage.

^M00:01:26

[Background Conversations]

^M00:01:37

[Music]