

Transcript for Video Clip 2.1

Teacher/video ID:	Dieken, 2.1_stella_WC_dieken_amber_c1
Content area:	Water cycle
STeLLA strategy:	Ask questions to elicit student ideas and predictions (STL strategy 1). Ask questions to probe student ideas and predictions (STL strategy 2).
Context:	Amber is a 5th-grade student. In this clip, she is interviewed about her ideas regarding how clouds form. The interview occurs before her class has studied the water cycle.

Video Clip 1

Time Code	Speaker	Discussion
Prior to clip: <i>[Student said she thought there was water in clouds.]</i>		
00:11:26.21	I	OK. Why do you think that the clouds have water inside of them?
00:11:31.06	S	Because maybe they just picked up some water from right here, and they're going down that way.
00:11:35.26	I	OK. So if the cloud did not have water, will the cloud be empty or will it ... will it even be there? What do you think?
00:11:46.21	S	Um, I think that it would. It'd still have water in it because clouds are made out of water too.
00:11:54.10	S	And so I would think it wouldn't be empty, but it could just be, like, traveling somewhere, like that way.
00:12:03.12	I	Oh, OK. So clouds are made of water. So even if it didn't pick up the water, it still has water by itself?
00:12:10.19	S	Mm-hm.
00:12:11.08	I	Are clouds made of anything else besides water?
00:12:14.00	S	Um ... I'm not sure.
00:12:18.01	I	You're not sure? OK. So when you're saying "water in the clouds," do you mean—and I'm going to give you three choices—
00:12:28.16	I	Do you mean solid water, liquid water, or gas water?
00:12:32.14	S	Gas.
00:12:33.06	I	Gas. Excuse me. Have you ev— Do you know that gas water has a special term?
00:12:41.04	S	Mm, no.

00:12:44.04	I	OK. So we won't use that term. So you were saying that the water in the clouds is actually gas water?
00:12:51.22	S	Gas. Mm-hm.
00:12:52.19	I	OK. Why do you think that?
00:12:55.18	S	Because if it's water, it would be like a [clump]. And ... But other things in it might change it.
00:13:05.11	S	But I think it's a gas because if you, like, if the wa— if the cloud's full of water and you're in a plane and you go through it ...
00:13:15.17	S	if it's made of water, you'll ... the windows would be all wet. But if it's not made of water, it's kind of like a gas, you'll get like a little bit of mist.
00:13:24.10	I	Mist.
00:13:24.27	S	You won't get, like, rain.
00:13:27.06	I	OK. So mist is the same as gas?
00:13:33.03	S	Um ... um, I'm not sure. But, like, I know that water can turn into a gas.
00:13:42.29	I	OK. So you know water can turn into a gas, and you think that gas is what makes up the cloud?
00:13:51.03	S	And also other things, but I'm not sure what they are.
00:13:54.10	I	OK. Other things. You think other stuff that's, like, in the air?
00:13:59.23	S	I think ... I'm not sure, but I, um, I'm not sure.
00:14:09.22	I	OK, that's fine. All right, let's ... OK, I want to ask about mist in a little bit.
00:14:17.23	I	But for now, is there gas water anywhere else in this picture besides the clouds?
00:14:25.25	S	Um ...
00:14:30.27	S	I'm not—
00:14:35.06	S	I don't know about that.
00:14:36.23	I	OK. But we know that there's liquid water here and here. Is there— Oh, and you also said a little bit here by the trees?
00:14:43.07	S	Yeah, just like if the trees— or it rained or something like that.
00:14:48.02	I	OK. Is there any solid water [in the picture]?

00:14:52.14	S	Um ...
00:14:58.12	S	probably not, because I don't see, like, any, like, solids or ... Well, I'm not ... I don't know. I don't think so [inaudible].
00:15:09.12	I	But what do you think a ... solid water might look like in this picture?
00:15:13.11	S	Like, either like an ice cube or, like, maybe like an ice rink or a pond that's frozen.
00:15:23.02	I	OK. OK. So that might be solid water?
00:15:26.22	S	Mm-hm.
00:15:27.17	I	OK. Let me think if I want to ask any more questions about that picture.
00:15:36.10	I	I'm curious, thinking back to these clouds and how they pick up water—and you called that evaporation?
00:15:46.00	S	Yeah, I call evaporation when the clouds are above the water, and the water ... the water is traveling up to the cloud.
00:15:53.16	I	Oh. OK. So water is traveling up to the cloud, and that's evaporation?
00:15:57.01	S	Mm-hm, mm-hm.
00:15:58.01	I	So what's ... what's making the water travel up to the clouds?
00:16:03.12	S	I think that it's gravitation ... No. I think ... I thought it was gravitational pull, but—
00:16:14.06	I	Hm, that's a pretty big word, or pretty big phrase.
00:16:17.10	S	Yeah. I'm not sure about that.
00:16:20.19	I	OK. So when you say that the water is being taken up—or how do you say it, rising up to the clouds?
00:16:28.23	S	Mm-hm.
00:16:29.19	I	Is it liquid water that's rising up?
00:16:33.00	S	Yeah.
00:16:34.02	I	And can you see that?
00:16:35.08	S	No.
00:16:36.00	I	No.
00:16:37.00	S	So then it won't be liquid water. I think it would be a gas.

00:16:40.14	I	Oh, so somewhere you ... you learned something about gas being visible or not visible.
00:16:47.05	S	Mm-hm.
00:16:48.00	I	What ... can you tell me about that?
00:16:49.15	S	Well, if you ... Well, some of the gases you could see, like if you're boiling water, and the water is first a liquid when you put it in a pan.
00:16:58.23	I	Mm-hm.
00:16:59.04	S	And then it goes on to, um, the pot or the plate, and like, it's getting boiled, and it starts to, like, blow smoke out.
00:17:09.03	S	That's like a gas. The water turns into a gas.
00:17:12.12	I	OK.
00:17:13.00	S	And, uh, you could see that gas.
00:17:16.01	I	Uh-huh.
00:17:17.00	S	But if, like, let's say if you're ... if you're in the middle of a pond, and there's clouds above you, and it's evaporating,
00:17:23.28	S	you don't know it, because the— I think, like, it's small. It might look like mist. I'm not sure.
00:17:30.21	I	OK.
00:17:31.12	S	But I don't think that you can visibly see it; like you'll see, like, a waterfall that's going up like that.
00:17:39.05	I	OK. OK. Wow, that's very clear.