

## Transcript for Video Clip 6.5

Teacher/video ID:	Amy Belcastro, 6.5_stella_FW_belcastro_L2_c3
Content area:	Food webs
STeLLA strategy:	Select activities that are matched to the learning goal (SCSL strategy C).
Context:	Prior to this video clip, students observed and described plants grown in the light and in the dark. They read a scientific explanation emphasizing that sunlight is energy and doesn't have any mass. In this clip, students use the data and information to consider whether sunlight is food for plants.

### Video Clip 5

Time Code	Speaker	Discussion
0:00:00.9	T	Let's go every person solo. What do you think? Write down in the packet.
0:00:05.4	SN	What?
0:00:05.7	T	I want you to use—
0:00:06.7	S	[Inaudible]
0:00:07.9	T	Either way. Wherever you write it down, you're fine. But I want you to decide whether or not sunlight is food, using evidence from the passage, OK?
0:00:21.2	T	Scotty, what do you think?
0:00:22.9	SN	I think it's not [inaudible] the scientific definition.
0:00:25.5	T	Why?
0:00:27.4	S	Because it says right here, "Sunlight is not matter."
0:00:35.6	S	So the scientific definition says that it [sunlight] needs both energy and matter to be a food. So I don't think it's a food for ... for plants.
0:00:49.3	T	Good. So does that support your idea that you had on the previous page, or does that challenge it?
0:00:55.5	S	Um ... it ...
0:01:00.2	T	Is that what you were thinking before? Were you thinking that sunlight is or is not food before?
0:01:06.1	S	Is not. I was thinking it was not food.
0:01:07.8	T	OK, so that supported your idea and gave you a reason to explain why. Good. Can you make that a complete sentence, though? "Because no matter ..."
0:01:15.7	SN	Ms. Belcastro, I think it [sunlight] is food.
0:01:17.7	T	Why do you think it's food?
0:01:19.7	S	Because it allows the plant to grow, and that's what food does.
0:01:23.7	T	What's the def— What's the scientific definition of food?
0:01:27.4	S	I forgot.
0:01:28.8	T	Where could you look?

0:01:33.5	S	In a scientific book.
0:01:36.2	T	Or?
0:01:36.7	SN	It's in the packet.
0:01:38.2	SN	In the packet.
0:01:39.2	T	Mm-hm. It's right there. OK.
0:01:42.4	S	OK.
0:01:43.0	T	OK.
0:01:44.2	S	Food is matter—building materials—that contains energy that living things can use to live and grow. And sunlight allows the plants to grow.
0:01:53.1	T	Yes. But what is food?
0:01:56.1	S	Food is ... food is magic.
0:02:02.1	S	But sunlight is still food, and one of—
0:02:05.8	T	So Harry is wrestling with something, and I think it sounds like you're all at a point that you can join Harry in this debate.
0:02:11.2	T	So this is where we're going to end the day today. And then we're just going to review the four that we've talked about. But Harry, talk us through your thinking about sunlight.
0:02:20.0	S	I said—
0:02:20.2	T	'Cause you're wrestling with this.
0:02:22.9	S	I said that sunlight is food because it— I said that if ... oh, I said right here, it helps the plant grow.
0:02:34.0	S	And in the scientific definition, it does ... said ... say food is matter.
0:02:39.4	S	But then it says “that contains energy,” and that's what sunlight has. And sunlight also has ... “that living things can use to live and grow.”
0:02:47.5	S	And that's also what sunlight allows it to do, so—
0:02:49.9	SN	But it also says it has ... it has to have matter—
0:02:52.3	SN	Yeah, but it—
0:02:52.9	SN	Yeah, but that's two reasons right there. “Contains energy and grow,” but food is matter, but- ... there's two against one right there.
0:03:03.3	SN	I don't think it helps it, though.
0:03:04.1	SN	[Inaudible]
0:03:05.1	T	What do you think? Harry's stirring up the controversy. Harry, call on someone to respond to your controversy that you're stirring up.
0:03:14.6	SN	Emmy.
0:03:15.5	SN	Well, I was just going to say if soil and sunlight isn't the food, then what is the food for plants?
0:03:23.8	SN	What's the food?
0:03:24.0	T	What a good question.

0:03:25.6	SN	Water!
0:03:25.8	T	What a good question.
0:03:26.8	S	Water!
0:03:27.7	T	So wait, because we're not there yet.
0:03:29.6	SN	No.
0:03:29.9	T	Is sunlight food?
0:03:31.8	SS	No!
0:03:32.8	SN	Yes!
0:03:33.0	T	How ... how do you know? How do you know? Sunlight ... Is sunlight food?
0:03:38.0	SN	Yes, yes, yes!
0:03:39.1	T	How do you know?
0:03:41.2	SN	I'm going to die.
0:03:42.0	T	Andrew.
0:03:42.8	SN	What?
0:03:44.6	SN	It ... it said it does not have matter. And it—
0:03:49.6	T	So ... so what does that tell us?
0:03:54.1	S	That it's not food, because food does contain matter.
0:03:58.7	SS	[Inaudible]
0:03:59.8	T	So while Emmy is going the direction that we're going to go, she's saying, "This isn't food and this isn't food and this isn't food and this isn't food"—
0:04:08.9	SN	Oh ... oh, can I say something?
0:04:10.4	T	Raise your hand. So I'm curious—
0:04:12.1	SN	Water contains matter.
0:04:14.1	T	Sienna?
0:04:15.8	SN	My idea of how it ... the plants—
0:04:17.6	T	So wait, pause on that question. Just sunlight. Sunlight, yes or no, food? That's all we are going to discuss right now. Blake?
0:04:23.7	SN	No.
0:04:24.2	SN	I agree with Harry. I think it is food.
0:04:27.1	SN	No.
0:04:27.2	T	Why?
0:04:27.9	SN	No.
0:04:28.6	SN	Well—
0:04:28.8	T	What evidence do you have to support that?
0:04:31.0	S	Because I think that just because a plant's ... just because a plant is living doesn't mean it's living like an animal, so I don't think plants need mass ...

0:04:41.4	T	So—
0:04:41.7	SN	It could be dying slowly ...
0:04:42.2	SN	for it to be food.
0:04:43.6	SN	but not realize it.
0:04:44.5	T	So I feel that people are resistant. We're going to go through it [the scientific definition] word by word. Food has to be what?
0:04:51.6	SS	Matter.
0:04:54.7	T	That contains what?
0:04:56.3	SS	Energy.
0:04:57.9	SN	It does—
0:04:58.2	T	That?
0:04:58.5	SN	It does. Sunlight does have energy.
0:05:00.0	T	Are plants and animals living things?
0:05:02.1	SN	It [Sunlight] doesn't have matter.
0:05:03.8	SS	Yes. [Plants and animals are living things.]
0:05:04.6	SN	But wait ... wait, let me tell what I'm thinking. I'm thinking food is matter. That's one reason. But then "that contains energy."
0:05:13.1	S	That's ... that's one reason for the other reason that I'm going for, me and Blake. And then it also says "can use to live and grow."
0:05:20.5	S	That's two things right there, two against one. Boom! Blows it out of the park.
0:05:24.4	T	The problem is that it has to be unanimous. Grace?
0:05:27.5	SN	It says on the scientific definition that it [food] is matter, and here it says, "Sun provides it energy that we can ..." It says here that "this energy has no mass."
0:05:39.9	SN	Ooh!
0:05:40.1	T	So what does that prove, that Sun—
0:05:41.9	SN	It's not a food.
0:05:42.3	SN	It doesn't—
0:05:43.0	SN	It's not food.
0:05:43.4	SN	It's not a food. Kyle?
0:05:46.2	SN	It's not a food because it just has to have matter and energy. It has energy. It just doesn't have matter, so that, like, automatically makes it not a food.
0:05:57.9	SN	Well, I disagree. Everybody makes mistakes. Maybe scientists made a mistake.
0:06:03.1	SN	No. They don't make mistakes.
0:06:04.7	SN	Yes, everybody makes mistakes.