

Transcript for Video Clip 7.2

Teacher/video ID:	Hannigan, 7.2_stella_SEC_hannigan_L6_c6
Content area:	The Sun's effect on climate
STeLLA strategy:	Select content representations and models matched to the learning goal and engage students in their use (SCSL strategy D).
Context:	In this lesson on the Sun's effect on climate, the teacher introduces a new idea during a mini-lecture.

Video Clip 2

Time Code	Speaker	Discussion
00:00:00.3	T	I want to take a look at this, all right?
00:00:02.8	T	This is the ... this is the diagram that you guys are picturing in your mind, because this is the diagram that's in every book,
00:00:09.7	T	that's in every movie, that's all over the place with talking about the Earth going around the Sun.
00:00:16.5	T	Now this makes you clearly think what?
00:00:21.4	SN	We're the only planet.
00:00:23.0	T	Well, yes, that we're the only planet, you're right.
00:00:24.9	T	That's ... but I'm ... but beyond that, what does it tell you?
00:00:27.0	T	Liam, this one, it just goes right along with what you know you learned about the Sun ... about the Earth around the Sun.
00:00:31.2	SN	Is it a circle or an oval?
00:00:32.6	T	It's an oval. What an oval, right?
00:00:34.9	T	Where are we the furthest away from the Sun according to this diagram?
00:00:37.8	SN	At the edge of the oval.
00:00:39.2	T	At the edge of the oval, right here. And then do we get really close?
00:00:41.5	SN	Yes.
00:00:42.2	T	Yeah, and then we get really far away?
00:00:44.1	SN	And then we get close again.
00:00:44.9	T	All right, let me show you what diagram illustrators are doing that is so confusing to you.
00:00:55.1	T	Take a look at this.
00:00:56.4	T	What ... what would you say this is in general?
00:00:58.7	SS	A circle.
00:00:59.7	T	OK, now I want you to watch it; I want you to watch it as I do this.
00:01:09.8	T	Now what does it look like when you are looking at it from this angle?
00:01:14.2	SS	An oval.

00:01:15.7	T	Do you see how I could take a circle, and by looking at it from a different plane, a different angle, I can make a circle look like an oval?
00:01:26.3	T	Now here is what your illustrators are doing that ... They're doing you no service.
00:01:30.9	T	They're taking a path that is nearly circular.
00:01:35.1	T	It goes off by just a tiny fraction, all right?
00:01:39.7	T	They're taking a path that is nearly circular, so there's no reason, Liam, you should have thought this;
00:01:44.5	T	because you never see it pictured like this; because I wouldn't be able to see the tilt this way;
00:01:49.6	T	because my Earth would also be looking like this.
00:01:53.4	T	They want to show you what the tilt looks like, so they take the whole thing, and they turn it like this.
00:01:59.2	T	Then you can start to see if it's tilted away [from] or toward the Sun, or to the side, or away, or to the side.
00:02:06.7	T	And they make it so they think you can understand this better.
00:02:10.1	T	But they make you always believe that you've got this incredible difference between when you are at this side of things,
00:02:18.1	T	and when you're right here.
00:02:19.7	T	And this ... this is the best way I can do to try to explain to you what happens with that, and try to help you understand that
00:02:26.8	T	although you've always pictured this, this is the way it's always drawn, you're being misled,
00:02:31.5	T	because you're looking at it ... the ... from this kind of angle, OK?
00:02:36.8	T	If you looked at it straight on like this, would it look like what?
00:02:39.1	SN	A circle.
00:02:39.8	SS	A line
00:02:40.4	T	A line, sure, it would look like a line, OK?
00:02:42.8	T	This way, a little bit like an oval, and then this gets rounder and rounder and rounder and rounder.
00:02:47.5	T	So that's the first bit of information to give you.