

Transcript for Video Clip 4.5

Teacher/video ID:	Torres, 4.5_stella2-04-torres4-L3_c8
Content area:	Earth's changing surface
STeLLA strategy:	Engage students in using and applying new science ideas in a variety of ways and contexts (STL strategy 6).
Context:	Ms. Torres introduces scientists' ideas about the movement of Earth's tectonic plates.

Video Clip 5

Time Code	Speaker	Discussion
00:41:59.4	T	But this is a chart [of what] scientists believe happened with plates.
00:42:04.4	T	Plates collide. The Earth's crust gets pushed up, and mountains can form.
00:42:10.6	T	Did we find that?
00:42:11.9	SN	Uh-huh.
00:42:13.0	T	When ours came together? Plates move apart.
00:42:17.0	T	Now this question was really— These guys were figuring this one out.
00:42:22.9	T	The melted rock from the mantle oozes up to the surface and hardens to make a new crust.
00:42:30.8	T	So, Cole, you asked that question ... or I asked you the question, and you said you think it can come out of the Earth.
00:42:37.7	T	'Cause he said it opens up the Earth. And I asked him, "Do you think that the magma can come out?"
00:42:42.1	T	And he said he thinks it can.
00:42:44.0	T	So are they saying that it can here?
00:42:45.9	SN	Mm-hmm.
00:42:46.6	T	So melted rock from the mantle oozes up. So picture it.
00:42:50.7	T	M'kay? Picture that you have this closed door, and then you open up that door,
00:42:56.5	T	and something is overflowing in the inside. What's gonna happen?
00:43:01.0	SN	It's gonna come up.
00:43:02.6	T	It's gonna come up. And the surface hardens to make new crust.
00:43:07.7	T	So remember, what's magma?
00:43:12.0	SN	Melted ...
00:43:13.0	T	Melted rock. So when it comes up to the crust ... When something's melted and it cools, what happens?
00:43:18.8	SN	It kinda like forms, and it—
00:43:21.4	SN	Or it freezes.
00:43:22.2	T	Kinda like freezes, or it could harden.

00:43:25.4	SN	Like clay.
00:43:26.8	T	So here we have this rock that's melted, and it comes up, and now it's ...
00:43:31.4	SN	Crust.
00:43:32.1	T	Now it's solid. It's hard again, right? And it becomes part of the crust.
00:43:36.6	T	OK. Plates move side by side.
00:43:40.6	T	Like what we figured out at the end. And those plates move gently over time.
00:43:46.4	T	Or, Dylan, they get stuck for a while. And then they move suddenly, creating earthquakes.
00:43:56.3	SN	That's exactly what Jason said.
00:43:58.7	T	Yeah that's exactly what you guys were talking about.
00:44:01.0	T	They can move real smooth, but then all of a sudden, here's this rock.
00:44:04.8	T	It's not smooth like our— It gets stuck.
00:44:10.6	T	What do you think's gonna happen?
00:44:12.7	SS	It's gonna...
00:44:15.1	T	Jessica?
00:44:15.3	SN	Oh, it's gonna make an earthquake.