

Transcript for Video Clip 4.1

Teacher/video ID:	Fowler, 4.1_mspcp_gr.2_matter_fowler_L6_c10-c11
Content area:	Properties of matter
STeLLA strategy:	Engage students in using and applying new science ideas in a variety of ways and contexts (STL strategy 6).
Context:	In this lesson on properties of matter, students review what they learned in previous lessons and share examples of changes in matter they've observed outside the classroom.

Video Clip 1

Time Code	Speaker	Discussion
00:00:00	T	So I want you to think about a time that you either saw a liquid turn into a solid [or] a solid turn into a liquid or maybe a gas outside of our classroom.
00:00:11	SN/T	Um ... / Could've been something you did at home. Could've been something you saw naturally.
00:00:15	SN	Uh-uh-uh-uh-uh.
00:00:16	T	Jeremiah.
00:00:18	SN	Um ... the snow is melting.
00:00:21	T	OK, and what do you think caused the snow to melt?
00:00:24	S	The Sun.
00:00:25	T	And what does the Sun provide?
00:00:27	S	Heat.
00:00:28	T	Heat. Snow melting. Now I have a ... I had a conversation with a few friends about this last week.
00:00:35	T	But you know when we come out of lunch?
00:00:37	SN/T	Yeah. / We go around the side of the building.
00:00:38	S	Mm-hm.
00:00:39	T	There's still ice hanging out there, and we haven't had snow in forever. Anybody want to go ...
00:00:44	SN	Oh!
00:00:45	T	have any ideas of why there's still ice hanging out over there?
00:00:47	E	[Inaudible]
00:00:49	T	Namaya.
00:00:50	SN	Because there's sha ... shade.
00:00:52	T	Shade. And so what does the shade stop [from] happening?
00:00:56	S	It stops the Sun from getting the heat.
00:01:02	T	And then that stops what from happening?
00:01:05	S	Melting.

00:01:06	T	Perfect. Because that side of our building never sees the Sun. So there's nothing there to heat it up. It just kind of hangs out.
00:01:13	T	So it's ... it may be there for quite a while longer. So we notice that the ice doesn't melt in the shade.
00:01:20	T	'Cause it's missing ...?
00:01:22	SN	Heat.
00:01:23	T	Heat. Nice job! Ice doesn't melt in the shade. OK. Anything else?
00:01:34	T	Jilissa, where have you seen changes in matter outside of our classroom?
00:01:38	SN	Can it be at home?
00:01:39	T	Yeah. Absolutely.
00:01:41	S	'Cause I saw when I came home, soda, and they dropped mints in it, and it exploded.
00:01:49	T	Ooh, can you say that louder?
00:01:51	S	At home, when I came home, I saw my sister. She had put soda, and she put three mints in it, and it exploded outside.
00:01:59	T	Yeah. Probably your parents weren't very happy about that. So she saw her sister [take] a couple mints ... you know, like the mints [in] your drink or mints you take in your mouth.
00:02:08	T	And she dropped them in soda, and the soda, like ... What ... Did it do the same thing as the baking soda in vinegar? So what did it create?
00:02:16	S	[Inaudible]
00:02:17	T	Well, what did it create, though? What ... what do we say the fizzies were? The baking soda and the vinegar? What type of matter?
00:02:26	S	Mm ... um ... Can I have time to think?
00:02:32	T	Mm-hm. Anybody want to help? Ashlynn.
00:02:35	SN	Bubbles.
00:02:36	T	Bubbles. And what are bubbles? What kind of matter are bubbles?
00:02:41	S	Air. Gas.
00:02:42	T	Gas. So you saw a soda fizz with mints. Soda fizzes with mints. So we know that it produced a gas.
00:02:55	T	I'll make sure we're not going too far over. OK, good. All right. Something else you guys have seen?
00:03:02	T	Ava, what have you seen outside the classroom with matter changing?
00:03:06	SN	Um ... when rain turns into ... rain turns into hail.
00:03:18	T	Ooh, hail. That's interesting. Have you guys ever seen hail?
00:03:22	SN/T	Yes. / We haven't done our weather unit yet, so we're going to get into a lot of detail about that.
00:03:25	SN	I saw it.

00:03:26	T	Who can raise their hand and tell me what hail is for those of us that haven't seen it? Although it's quite a common thing in Colorado.
00:03:30	SN	Ooh.
00:03:31	T	Leah, what's hail?
00:03:33	SN	Hail is a type of snow, but kind of usually with rain. These are ... it's a little kind of ice cubes, and it goes ... and it goes on the ground really hard from clouds.
00:03:44	T	OK. And what type of matter is hail?
00:03:47	S	Uh ...
00:03:48	SN	Definitely a solid.
00:03:50	T	Is it a liquid, a gas ...
00:03:52	SN	Solid?
00:03:54	T	It's a solid. OK, so you guys have seen hail as a solid. These are perfect.
00:04:03	T	Ava. When have you seen a change in matter outside the classroom?
00:04:06	SN	Um ... when a baby apple turns into apple ... a big apple tree.
00:04:14	T	OK. And how is that a change in matter?
00:04:18	S	Because the apples, I think, start out as kind of flowers. And they turn into a real apple tree.
00:04:36	T	OK. Is there a change in matter or not? What do you think?
00:04:44	T	So I know you missed yesterday, so it's kind of confusing, but we talked about changing matter, like going from a liquid to a solid and a solid to a liquid,
00:04:51	T	or then going from a liquid and a solid and producing a gas, and it's something totally new.
00:04:56	T	Do you think any of that happens with a tree ... apple tree?
00:05:04	S	Um ... it's a solid?
00:05:05	T	Yeah. Well, it stays a solid the whole time, right? It just changes ... it changes shape and size. But yeah, that's a change in matter, I would say.