

Transcript for Video Clip 8.3

Teacher/video ID:	Wilde, 8.3_mspcp_gr.3.forces_wilde_L4_c8-9
Content area:	Forces
STeLLA strategy:	Make explicit links between science ideas and activities (SCSL strategy F). Link science ideas to other science ideas (SCSL strategy G). Highlight key science ideas and focus question throughout (SCSL strategy H).
Context:	In this lesson on forces and motion, the teacher defines the word <i>friction</i> , and students identify real-world examples of friction.

Video Clip 3a

Time Code	Speaker	Discussion
0:00:02	T	What we are gonna do? There is a word for this force that's happening. Does anybody know what the word is ...
0:00:10	SN/T	No. / ... that makes something slow down?
0:00:12	T	So if I've got the car, and I'm ... I push it and it stops. What is the word of the force that stops the car?
0:00:23	T	Does anyone know? Cole?
0:00:25	SN	Negativity?
0:00:26	T	Not negativity. I like what you're thinking, though, 'cause you're thinking, "Well, maybe that'll stop it, and it's got a force going this way." I like what you're thinking.
0:00:34	SN	What's negativity? What's negativity?
0:00:38	SN	Nobody knows.
0:00:39	T	Basically he's trying to say that it's a force that stops it.
0:00:40	SN	I don't know [inaudible].
0:00:42	SN	Once my sister was talking about negativity to me.
0:00:44	SN	Like negative and positive.
0:00:45	T	OK. What is the force that is stopping the car? Brandon, do you know? Shh.
0:00:51	SN	[Inaudible]
0:00:53	SN	Blocking?
0:00:54	T/S	What? / Blocking?
0:00:55	T	Not blocking. I like what you're thinking, though, 'cause you're kind of thinking about the hands pushing back. Is that what you're thinking?
0:01:02	T	OK. So maybe blocking. Not quite. Xander?
0:01:04	SN	How 'bout ... I-I think that, like, in, like, adding on to what Cole said, like, with the negativity and the positivity. Like, the positive is where you push it,
0:01:18	S	but negative is where it tries to stop it.
0:01:21	T	Ohh. OK, so you're thinking of just the force that's pushing back, you maybe would call negativity. There's another word for it.

0:01:29	SN/T	Um ... / Hailey? Don't [you] wanna try? Lucy, do you wanna give it a try?
0:01:33	SN	Yeah.
0:01:34	T	OK.
0:01:36	S	I think it is, um, gravity stopping it.
0:01:48	T	OK. You're thinking gravity/ It's not gravity. This word starts with an <i>F</i> .
0:01:55	T	No? Do you wanna give it one more shot, Xander?
0:02:01	SN	Faytivity?
0:02:02	T	No, it's not called <i>faytivity</i> . It's actually called <i>friction</i> . Has anyone ever heard of the word <i>friction</i> ?
0:02:09	SS/SS	Yes. / No.
0:02:10	T	OK. I'm seeing some people raise their hand. So I need you to please open up your journal if it is not open already.
0:02:19	T	We are gonna add the word <i>friction</i> , and I'm gonna put that up here for you.

Video Clip 3b

Time Code	Speaker	Discussion
0:02:25	T	We have three examples of some friction on your tables. We've got the carpet, the tile, and the sandpaper.
0:02:34	T	Are there any other examples of friction in daily life that you can think of?
0:02:41	T	So if I roll something and it eventually stops, that'll be an example of friction. Can anyone think of something?
0:02:51	T	Giselle, what are you thinking?
0:02:53	SN	Skin.
0:02:54	T	Skin. Why skin?
0:02:55	S	Because skin's kind of bumpy, and it'll eventually stop. It's kind of like the tile or the sandpaper [inaudible].
0:03:01	T	So you're saying, like, if I roll the car down my arm?
0:03:04	S	Yeah, like if you have short sleeves and a sh- or a t- or a tank top on, and you roll it down. But, like, if it doesn't fall,
0:03:12	S	it would just stop eventually somewhere on your arm or hand.
0:03:14	T	OK. Interesting. OK. I like your thoughts. It would definitely do that. Rachel.
0:03:22	SN	If you're kicking a soccer ball,
0:03:24	T/S	Uh-huh. / and it would keep going and eventually will stop, because it—
0:03:28	T	So what would be the friction in that case? What would be the force acting against it?
0:03:33	S	[Inaudible]
0:03:34	T	What?
0:03:35	S	Pulling.
0:03:36	T	I can't hear you.
0:03:37	S	Pulling.

0:03:38	T	Pulling. Well, what would be the friction? 'Cause we know that the carpet acts like friction with the car. What would be the friction with the ball?
0:03:47	T	What would cause the friction?
0:03:49	S	The kick.
0:03:50	T	The kick is the force, right? What slows the ball down?
0:03:54	S	[Inaudible]
0:03:56	T	What is the object that slows the ball down?
0:03:58	S	The grass.
0:04:00	T	The grass. That's a great example, Rachel. So if I kick a ball, and I'm in the field outside, the grass'll eventually slow the ball down, right?
0:04:09	SN	Mm-hm.
0:04:10	T	Absolutely it will.
0:04:11	SN	Because some of them are tall, [and] some of them are small, but it's still stuck to the ground. The roots have really strong because they get [inaudible].
0:04:19	T	Yeah, the grass isn't coming out, is it? Excellent. Are there any other examples? Kai-Kailey.
0:04:26	SN	If I roll the car down the ... roll the car across the carpet.
0:04:32	T	Oh. Why would the carpet be a good example?
0:04:35	S	Because it's really bumpy, and it can stop it.
0:04:38	T	OK, so Kailey is saying this carpet on our floor right now is a great example. I have to agree with you, Kailey. That would be a fantastic example.
0:04:46	T	What do you think? Would the carpet that we're standing on stop the car more quickly, or would the car go further than with the carpet that we used in our experiment?
0:04:59	SN	The carpet right there.
0:05:00	T	So would this carpet stop it faster, or would the carpet I'm standing on stop it faster?
0:05:05	SN	That one. The one you're standing on.
0:05:06	SN	The one in your hand.
0:05:07	T	Aubrey, what do you think? Shh.
0:05:08	SN/SN	The one that you're standing on. / [Inaudible] will stop it faster because it's more like bumpy.
0:05:09	T	Shh.
0:05:13	T	Which one did you say? This one or that one?
0:05:15	S	This one.
0:05:16	T	That one'll stop it faster?
0:05:17	S	Mm-hm, because it's, like, bumpy on ... The carpet isn't like ... It's straight up, so it's a little bumpy.
0:05:24	T	OK. So this one that I'm standing on is a little smoother. Is that what you're saying?
0:05:28	S	Yes.

0:05:29	T	So [the car] might go further. Interesting. What are some other really good examples?
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