Ms Fargason's Energy Activity Clip 2

[During the middle of the period SF asks class to write in their journals their answer(s) to the following question(s): *What is energy? What is energy when you are talking about ramps, rubber bands, cars, people running, or energy drinks? Are they all the same or are they different? If they are different, explain how*. Some students work at their tables. Some students come up to talk with Ms. Fargason.]

[00:00:00.00] Ms. Fargason: Okay, now how can I give this rubber band energy?
[00:00:02.27] Kervin: Oh, you just pull it out! (Gestures with his hand moving backwards.)
[00:00:03.29] Ms. Fargason: Go ahead and do it.
[00:00:06.07] Kervin: Test it out?
[00:00:07.00] Ms. Fargason: No --- Yeah. Show me how you're going to give this rubber band energy.
[00:00:10.27] Kervin: Like this, look. (He pulls rubber band from the center back towards him.)
[00:00:12.12] Ms. Fargason: So where --- can you use your other hand now and show me where the energy is?
[00:00:16.28] Kervin: Right, um...Right here (points to a spot on the rubber band where it is pulled back the most).
[00:00:20.12] Ms. Fargason: So there is energy right there? And what's that going to do?
[00:00:24.16] Kervin: It's going to push (he lets go of the rubber band)--- It's going to push it forward (moves hand forward). More, um, more forward, and more faster.
[00:00:37.03] Ms. Fargason: Okay. Could you give this rubber band even more energy than that, is that possible? What would I do to do that?
[00:00:43.19] Kervin: Like, um, like farther for the energy. (He pulls back rubber band even further towards him than before.)
[00:00:47.17] Ms. Fargason: Pull it back even farther? And, and, um, Kevin was saying that if I stretched it this way (stretches rubber band sideways) it gave it more energy. Is that true?
[00:00:54.28] Kervin: Yes. And, and if you pull it back, like, far too (pulls sideways stretched rubber band from the center back towards him, and then lets go) ...
[00:00:59.22] Ms. Fargason: So now that's even more energy?
[00:01:02.09] Kervin: (nods in agreement)
[00:01:03.10] Ms. Fargason: And so the way I give this energy is by stretching it --- either this way (pulls it sideways) or backwards? (Moves rubber band towards Kervin.)
[00:01:08.23] Kervin: Yes.

[00:01:09.29] Ms. Fargason: Okay. Now how does the ramp get its energy?
[00:01:12.17] Kervin: Easy. It needs to be like all the way here, like...
[00:01:21.14] Ms. Fargason: (Addresses problem with another student) If you're complaining to me about a pen, there's other solutions. You're a smart lady. Figure something out. (She waves to students, and then turns back to Kervin.) Sorry.
[00:01:34.29] Kervin: Like, um, like last time we did three ramps --- Number one, number two, number three (moving along pointing to three different positions). Number two went the fastest because (inaudible) it was lower. So a ramp, if it's lower, it goes faster.
[00:01:51.12] Ms. Fargason: Does it have more energy?
[00:01:53.12] Kervin: (...nods) Yes, because it has more time to gather up the energy (moving both his hands and body up and down).
[00:01:59.11] Ms. Fargason: So when it rolling down the ramp (moving her hand in a circular motion) it's gathering up energy?
[00:02:03.13] Kervin: Yes. Like a snowball.

[00:02:04.27] Ms. Fargason: Like a snowball, (laughs) how it gathers up snow (moving her hand in a circular motion) --- but it's just gathering up more and more energy (continues to move hand in circular motion).
[00:02:11.02] Kervin: Yes.

[00:02:11.22] (Tape jumps to about 3 min 20 sec later)

[00:02:12.11] Ms. Fargason: And Kervin was saying that it's like a snowball, like if the ramp is nice and low it picks up a lot of energy as it goes.
[00:02:19.02] Tracy: Sort of, if you make it a little bit higher.
[00:02:23.01] Ms. Fargason: Oh, so you think it gets more energy if it's higher?
[00:02:26.04] Tracy: (nods in agreement). Yeah.
[00:02:26.07] Ms. Fargason: So you guys disagree.
[00:02:27.18] Kervin: I don't disagree
[00:02:29.15] Ms. Fargason: No, you do disagree with her. You do. You just weren't listening. She --- you think that it has more energy if it's lower.
[00:02:35.26] Kervin: Yeah, but... (Becomes animated)
[00:02:37.08] Ms. Fargason: But sweetheart, she says it has more energy if it's higher up. So you do disagree.
[00:02:43.09] Kervin: Yes I do, but if it's too steep--- it will crash to the bottom. But if it's low like ramp (inaudible) number one, number two, number three it will (stops talking)
[00:02:58.09] Ms. Fargason (speaking to Caleb) Hold on one second, I'm going to go back to that.
[00:02:59.28] Kervin: … It will go down faster.
[00:03:02.07] Tracy: (Goes over to counter and moves her hand from the top towards the floor.) That's why (inaudible) the angle...(inaudible) down./
[00:03:07.24] Timmy: /Energy is rolling too. But a snowball energy is going, like going around (moving his hand in a circular motion).
[00:03:08.01] Ms. Fargason: Okay. So that one has the most energy when it's on the top?