

## Transcript for Video Clip 8.2

|                   |   |
|-------------------|---|
| Teacher/video ID: | Scott Knight, 8.2_stella_et_knight_L5_c2  |
| Content area:     | Energy transfer   |
| STeLLA strategy:  | Make explicit links between science ideas and activities (SCSL strategy F).   |
| Context:          | The teacher sets up the lesson activity by engaging students in diagramming and labeling energy transfers and transformations in the crash between Mumford and Leroy from the previous two lessons. |

### Video Clip 2

| Time Code | Speaker | Discussion   |
|-----------|---------|--|
| 0:00:03.5 | T       | I'm going to record some of your thoughts up here. And just a few at that.   |
| 0:00:10.7 | T       | Gillian, what would you like to add? Where does energy come from? Where does energy go?  |
| 0:00:16.4 | SN      | Well, I put energy comes from other objects. And then energy goes to, like, us people and, like, other objects.  |
| 0:00:29.4 | T       | How does it get from one object to another object?   |
| 0:00:35.2 | S       | Like, say a toaster ... you have to plug it in to get energy. So you get energy from, like, the plug in the wall.  |
| 0:00:43.4 | T       | How does it get from the outlet in the wall to the inside of the toaster, the mechanism of the toaster?  |
| 0:00:49.0 | S       | The plug. Like, the plug that you plug into the wall.  |
| 0:00:52.7 | T       | The wires.   |
| 0:00:56.1 | T       | Great. Lex.  |
| 0:01:00.9 | SN      | Energy comes from reactions, like Mumford putting his foot on the pedals, and also other energy. And energy ... and energy goes by transferring.             |
| 0:01:16.4 | T       | Sometimes when you guys say something, it gives me goose bumps.  |
| 0:01:20.2 | T       | He just real quickly said, "Oh yeah. It comes from other energy."  |
| 0:01:24.3 | T       | He had all that kinetic energy going down the hill because he had the potential, and then he dropped in the word <i>transfer</i> ,                           |
| 0:01:29.8 | T       | which is exactly what Jilly was saying when she said, "Yeah, we've got electricity to our houses; then it gets transferred to the toaster."                  |
| 0:01:39.1 | T       | That's scientific and delicious.   |
| 0:01:42.9 | SN      | [Inaudible]  |
| 0:01:43.7 | T       | All right. Couple more. Ryland.  |
| 0:01:46.4 | SN      | Energy comes from where the object is, and energy goes to transferring, like, say, this decks ... desk had wheels,   |
| 0:01:58.3 | S       | and it moved it, and you stopped it. It tra ... it's transferring energy from kinetic energy to potential energy.  |
| 0:02:12.7 | T       | So potential to kinetic. We say it transfers from object to object, like kinetic. The costume is the same, but when it changes costume, it changes the word. |
| 0:02:25.0 | T       | So energy forms can change. I want to ask you about this. This'll close up ... If you want to borrow any of this, you're very welcome to, by the way.        |

|           |    |   |
|-----------|----|---|
| 0:02:32.3 | T  | You said where it is. Explain to me ... what does ... what does that mean?  |
| 0:02:34.8 | S  | Like, Mumford at the top of the hill; he has no kinetic energy.   |
| 0:02:40.3 | T  | Yeah. But he has all kinds of ...   |
| 0:02:42.9 | S  | Potential energy.   |
| 0:02:46.1 | T  | And I'm going to use our abbreviation here.   |
| 0:02:48.4 | SN | PE?   |
| 0:02:48.9 | T  | No, that's not gym class. Potential energy.   |
| 0:02:52.0 | T  | Wow. That's the best question you've answered all ... all lesson long. Listen, except for ... I guess this is where we're going to need to put our thoughts today: Where does that energy go? |