



Classroom Transcript: Consensus Discussion

- 1 Teacher: Alright, what are some things that we need to definitely put up as part of this? Yeah?
- 2 Student 1: For our drawing, we should somehow show electricity going through a battery through
3 the wire.
- 4 Teacher: Alright, do you guys all agree? We should show electricity, and a battery, and a wire?
- 5 Students: Mm-hmm (affirmative).
- 6 Teacher: Yeah?
- 7 Student 2: Wait, we're doing it step by step but just-?
- 8 Teacher: Well I want to be able to put a model up here.
- 9 Student 2: Yeah, yeah, I know but-.
- 10 Teacher: Do you agree with what Student 1 said?
- 11 Student 2: Mm-hmm (affirmative)
- 12 Teacher: Alright, does everyone agree that we just put a battery up there?
- 13 Student 2: No. An iPad.
- 14 Teacher: An iPad?
- 15 Student 3: I mean couldn't we have the iPad and then add the battery?
- 16 Student 1: Right. We could.
- 17 Student 4: No but it doesn't switch the current.
- 18 Teacher: Say that again?
- 19 Student 4: The battery doesn't switch the current.
- 20 Teacher: The battery doesn't switch the current? So you're saying the iPad switches the current?
21 Is that important to figuring out how the speaker works?
- 22 Class: Yes.
- 23 Teacher: Okay, so what should we show it connected to?
- 24 Student 2: The battery.
- 25 Students: iPad.

- 26 Teacher: I'm still hearing battery and iPad, why should it be the battery? And why should it be the
27 iPad?
- 28 Student 5: iPad because it switches the currents.
- 29 Teacher: And why? What's that?
- 30 Student 2: It switches currents?
- 31 Teacher: Right, remember from the reading-
- 32 Student 2: But I thought, because Student 4 said something about ...
- 33 Student 4: When?
- 34 Student 2: Oh ... never mind, that makes so much sense now, yeah.
- 35 Teacher: Alright, and why is that important that the iPad switches the currents? Why does that
36 matter?
- 37 Student 2: Vibrations.
- 38 Student 5: The microphone.
- 39 Teacher: Hold on, you are skipping step one and step two, and you're going straight to step three.
40 I agree that switching the current gets the vibration, but how? What are the steps in
41 between?
- 42 Student 4: They repel and cause forces to attract.
- 43 Teacher: So it switches between repulsive and attractive forces, which cause the vibration, which
44 causes?
- 45 Student 6: Sound
- 46 Teacher: Perfect. Alright, so I'm going to draw an iPad in here, I'm just going to put it over here.
47 Does that sound okay? I know what you guys are thinking, that looks exactly like an
48 iPad.
- 49 Student 2: No.
- 50 Teacher: You're welcome, I am a brilliant artist. What should be connected to the iPad? What did
51 we say?
- 52 Students: The wire. The aux cord.
- 53 Teacher: The aux cord. Beautiful. And what is connected to that?
- 54 Students: The alligator clips.
- 55 Teacher: Beautiful. And what is connected to that?
- 56 Student 4: The wire to the coil. (overlapping talk)

- 57 Student 2: No, there's supposed to be two alligator cords!
- 58 Teacher: Ok.
- 59 Student 2: No, no, no! Alligator clips not aux cords.
- 60 Teacher: Ok.
- 61 Students: And the coil.
- 62 Teacher: All right, I have a question. We've been showing the coil in a lot of these head on, like
63 with a circle. But if we want to be showing the forces. It's hard to show the forces coming
64 out of- sorry you are just totally not seeing anything since I'm doing that behind your
65 head. It's hard to show forces going into or out of the paper. Can we turn it kind of
66 sideways?
- 67 Students: Yes
- 68 Teacher: I'm going to give you a couple options. Either we turn it completely sideways and we
69 kinda see that. Is that ok?
- 70 Students: No.
- 71 Teacher: We could do it just barely sideways like this. Is that ok?
- 72 Students: Yeah.
- 73 Student 2: Or you could do it like that, but just fold it straight
- 74 Teacher: What's that?
- 75 Student 2: Just like that, but in a circle motion.
- 76 Teacher: This one here? Well I don't want to do that.
- 77 Student 2: No, no, no. Just like the line motion.
- 78 Teacher: This one here?
- 79 Students: Yeah
- 80 Teacher: Oh, so you're saying like this?
- 81 Student 2: Yeah.
- 82 Teacher: Does that make sense?
- 83 Students: Oh yeah.
- 84 Teacher: Are we ok with that?
- 85 Students: Yeah
- 86 Teacher: Ok.

The Final Class Consensus Model:



