

Clip name	Student Interview: Initial ideas about sound
Grade/Content	Grade 1: Sound
Unit Focus	For you to hear a sound, an object must vibrate which then causes the air all around it to vibrate. Sound moves in all directions from the sound maker. When the vibrating air hits your eardrum, it makes your eardrum vibrate and you hear sound. If the vibrations are large it is a loud sound and if they are small it is a quiet sound.
Focus Question	Why do we hear sound?
Context	A first grade student is responding to a series of questions from an interviewer about what makes sound and how sound travels. The interview occurred prior to an instructional unit on sound.

I: Interviewer S: Student
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00:00 I Okay, let's try it like this. Try going like this.

00:07 SN/I Yeah. / Okay. What do you see happening?

00:10 S It's, like, going up and down.

00:15 I Isn't that what you say you felt in here?

00:17 S Yeah.

00:18 I Do you think that there might be something about going up and down that has to do with sound?

00:25 S Yeah.

00:27 I Yeah? Tell me about that.

00:28 S Like, when you, like, do this, it makes sound, but when you do this, it doesn't really make any sound.

00:41 I Mm-hm.

00:42 S But when it goes up and down, it makes sound.

00:45 I Okay, so let's think about that card. What were you doing with that card that made sound?

00:51 S The, like, just...

00:55 I Did that have anything to do with what- what's happening here?

01:00 S Yeah, it, like, I went, like, up and down.

01:04 I Oh, okay. Do you think all sound has something to do with going up and down?

01:12 S Maybe not.

01:14 I Okay. Can you tell me about that? What sound might not have something to do with going up and down?

01:21 S This.

01:22 I Okay, tell me about that.

01:24 S/I Like- / You think that makes a sound?

01:26 S You just pick it up and then it makes a sound. 'Cause it's so, like, crunchy and stuff.

01:32 I Uh-huh. Yeah, it's really crunchy.

01:33 S Like, you just pick it up and it makes a sound.

01:36 I Okay. So sometimes we can make a sound here and sometimes we can make a sound here. How is it that we hear those sounds?

01:47 S Mm. 'Cause these things, they're, like, making sounds like that.

01:58 I Mm-hm.

02:00 S And you can hear it because you're close by.

02:14 S Because it doesn't- you can't really hear it far away. You just can, like, kind of hear it but not really.

02:24 I Okay. Do you have any idea why?

02:28 S Mm-mm.

02:29 I Okay, so I want you to draw me a picture. And I just drew a bell, and that bell- does it look like a bell to you?

02:37 S Mm, yeah.

02:38 I Sort of? Okay. Well, we're going to imagine that that bell is making a sound. I'm going to take these away, 'cause we're just imagining now. Thank you.

02:48 I And I want you to draw me a picture of how you think that bell makes a sound and how you might hear that sound.

02:59 S Like- like, can I draw a picture of how you might, like, hear it or something?

03:04 I Mm-hm. You- you mentioned that you can hear it better if you're closer and you can't hear it very well if you're far away.

03:13 I So I don't know if that somehow can work into your picture or not. Tell me what you think is going on with the sound that you can hear it.

03:23 S Hm? A sound that you can hear it? What do you really mean? Like- like far away and close by?

03:34 I Yeah, something like far away and close by. Why is it that I can hear your voice?

03:40 S Because you're close by.

03:41 I I'm close by. How do I hear your voice?

03:45 S 'Cause you're near.

03:46 I Okay. Do I hear you with my nose?

03:54 S/I No. / No? Are you sure?

03:56 S Yeah.

03:57 I How do I hear you?

03:58 S With your ears.

04:00 I What happens- what happens in my ears that let me hear, do you know? Have any idea?

04:06 S Like, eardrums.

04:08 I Oh. Eardrums? What are they?

04:13 S They're like things inside your ears that help you hear.

04:18 I Do you know how they do that?

04:20 S Mm-mm.

04:21 I So let's- why don't you draw a picture of you on there, and then tell me how do you think that that picture- how that sound gets from where it's being made to your ears?