



Lesson Plan K6: What Is Sound?

Primary Purpose: To help the children feel loved and happy about making music together!

Secondary Purposes: To help the children understand that sound is waves caused by something moving something else to make it vibrate; that we measure things in inches, mph, and Hz; that pitch is a *specific* number of cycles (waves) per second; and that each note has its own unique pitch, just like each child has their own unique voice. Show/explain a tuner. Show that fixed *do* (fifth octave C/middle C)=523.3 Hz; fixed *mi* (fifth octave E) =659.3 Hz; fixed *sol* (fifth octave G) =784.0 Hz. Practice *do, mi, sol* and playing them on the practice bells.

Resources:

1. Songs/Games:

- Delicious Music
- Children, Come and Dance with Me
- Getting to Know You
- Adios, Amigos

2. Other:

- tuner or a tuner app on a phone, tablet or computer
- your bell set
- practice bell sets, one for each child
- anything you might use to demonstrate sound/vibration/measurement, such as a rubber band and a marble with a shallow bowl or bucket of water (such as an empty ice cream bucket), measuring stick and ruler, picture of a speedometer

Preparation:

Get materials ready so that demonstrating and handing them out is quick and simple.

Plan Overview (with time approximations):

- Sing “Delicious Music” (1 minute)
- Teach about sound, vibration, measurement, pitch, and tuners (12 minutes)
- Circle up and review “Getting to Know You” (2 minutes)
- Practice singing, signing, and playing *dms* on the practice bells (10 minutes)
- Sing and “Adios, Amigos” (1 minute)



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Plan Details:

What is Sound?

Sound is waves in the air that are made when something touches something else. We call this a vibration.

Examples:

- See this rubberband stretched between my fingers? What happens when you pluck it? It makes a sound AND you can see it vibrate.
- See this marble (pebble, rubber ball, etc.)? What happens when I drop it into this bowl (bucket, etc.) of water? It makes waves. When you touch something to make it vibrate, it makes a sound wave, which is a chain of vibrating air molecules. You can't see it, but it travels so fast to your ear and then to your brain, that you "hear" it!
- Let's try to make some other things vibrate. What about this practice bell set? If I hit the board with my mallet, it makes a thunk. Why? (The board is vibrating, which causes a sound wave in the air that travels to my ear and brain.)

What is Pitch?

- What about our set of resonator bells? Let's try those. (Play *do*.) What happened? (Repeat: The metal piece of the bell is vibrating, which causes a sound wave in the air that travels to my ear and brain.) Now listen to this bell. (Play *mi*.) Is that the same sound as this bell? (Play *do*.) No. Why? What is different? (*do* is longer than *mi*.) Yes!
- The length of what you make vibrate makes different sound waves that have different pitches. If the bell is longer, the vibrations are slower, so the pitch is lower. If the bell is shorter, the vibrations are faster, and pitch is higher.

What is a Tuner?

- How do we measure how tall you are? (With a measuring stick/ruler/measuring tape/doctor's office scale) (Have a child stand up. Measure them with something.) Look! S/he is 40" tall! OK. We just measured how tall someone is in inches. Remember how we abbreviate *do*? We write *d*. We abbreviate the word "inches" like this: "in" (write it on the board or show a card with it written.)
- Have you ever driven in a car with your mom or dad? Of course! Have you ever seen how fast they are driving? Where do you look to see how fast they are driving? Yep,



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on the dashboard. You look at the speedometer, and it says “30 mph.” “MPH” means “miles per hour.” What is really fast driving?

- “Hz” is the abbreviation for the word hertz. Hertz means cycles, or waves, per second. So if there are 523 waves per second, then the sound is going to be this *do*. (Play low *do*.)
- One way we can find out how fast different sounds are traveling is by using tools like a tuner or a pitch pipe. I have a pitch pipe app on my phone that will show us. We pick a note, and it shows us the Hz of that note. Look: *mi* is 659. *sol* is 784. COOL! Each note has its very own, unique pitch, just like each of you have your own, unique voices! Isn’t that awesome?

Practice *do*, *mi*, *sol*

- Well, enough about all that good stuff for now! Let’s move! (Sing “Children, Come and Dance with Me” to get into a circle. Sing “Getting to Know You” once while moving to the right or left in the circle.)
- That was great! I love that song! Everyone please sit down. Let’s sing *do* 5x. You sing and sign with me as I play it. Here we go!(*dddd*) Great! Now let’s sing *mi* 5x. (*mmmmm*) Wonderful. And now *sol* 5x. And now we want to sign and sign *do-mi-sol* five times while I will play it on the bells. (Practice).
- Great! Now we’ll go around the circle and you each take a turn singing one note. For example, Jimmy sings “*do*,” then Sue sings “*mi*,” and then Jack sings “*sol*.” Ready? Here we go!

Practice Bells

- That was a wonderful warm up for this. Look what I brought today! (Hand out the practice bells, one set to each child.) These are practice bells! Aren’t they fun? They look like my bells, but what is different? Right! They don’t play different sounds. What happens when you hit the board with your mallet? It makes a thunk sound. Why do you think we have these if they don’t make the sounds of each note? Yes! To help teach our hands where to go when we are reading music. It takes a lot of practice to make our hands get the mallet to the correct note when we are trying to play a song. We can practice on the board and then when we have our real bells, our hands and brain will be trained and ready to play!



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- Let's try practicing *do* on our board. I will play *do* 5 times, and I want you to try to hit *do* exactly on each time with me. Ready? Mallets in the air! Play! (*dddd*) How did you do? Did you get it right on? Let's try that again. (*dddd*) Great! Now we will try it on *mi*. 5x, just like before. (*mmmm*) Great! Now let's try *sol*! (*ssss*). How are you doing? Is it hard? Easy? Anyone need help?
- NOW we're going to get harder. We are going to play *dm*. Just one time. *dm*. Are you ready? (*dm*). Excellent! Let's try it 5x. Great! Are you learning? You are! Next week we will check these boards out to you so that you can take them home and practice with the recordings on the website. Sound good? Great!

Goodbye

- Everyone carefully put your mallets and boards back into their bags. When you get that done, put it in your lap and let's sing. (Sing *Adios, Amigos* and gather up boards).