

## Vibrations: Building a Bee Buzzer (3-5)

### The SCIENCE of SOUND:

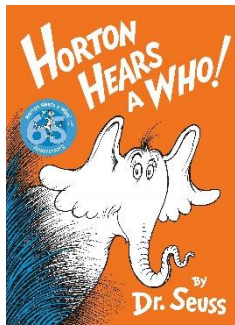


Sound waves can't be seen but they help us figure out the world around us. We hear because sound waves travel into our inner ear and vibrate against our eardrum, sending a signal to our brain. We can see and feel their effect on objects.

Example: Put your hand to your chest and hum. What do you feel?

Bees don't buzz with their mouths! That is because buzzing is the sound of the wings beating together.

### LITERACY CONNECTION:



*Horton Hears a Who* by Dr. Seuss is a great book to get kids thinking about sound.

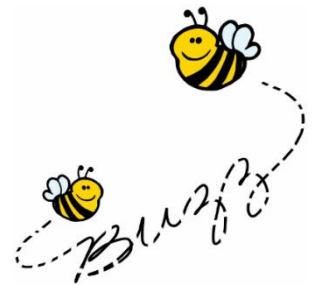
- Why could Horton hear the Whos when no one else could?
- What could the Whoville residents do to be LOUDER?

Don't have this book at home? There are great videos of this and other books online. You can also watch [Horton Hears a Who](#) online.

### ACTIVITY: BEE BUZZER

Materials: 1 note card, 2 eraser caps, 1 popsicle stick, 1 piece of string (~2'), 1 rubber band

1. Fold the note card in half and decorate the OUTSIDE
2. Place one eraser cap on each end of the popsicle stick
3. Place the folded note card over the stick and staple it in place
4. Tie the string next to one eraser
5. Stretch the rubber band around the stick, from one eraser to the other
6. Make sure you have space, OR go outside and swing your buzzer!



**What is happening?** When you spin the buzzer, moving air causes the rubber band to vibrate. Sound is produced by those vibrations, in the same way that vibrating strings on a guitar or violin produce sound. The sound is amplified - made louder - by the index card.

For step-by-step instructions, watch the video at: [Bee Buzzer STEM Activity](#)

*This at-home educational activity is from the Literacy Coalition of Palm Beach County's literacy-based Stories & STEM program. Stories & STEM is made possible with support from Prime Time Palm Beach County, Inc., which receives significant funding from the Children's Services Council of Palm Beach County, Inc.*

*Having fun? Send pictures or video links of you and your Stories & STEM projects to [csharkey@literacypbc.org](mailto:csharkey@literacypbc.org)*