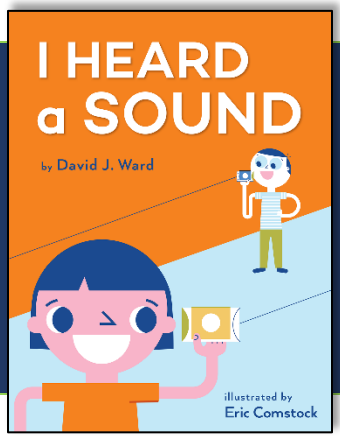

I HEARD A SOUND

by David J. Ward
illustrated by Eric Comstock

HC: 9780823437047 • Ages 6–9

About the Book

Learn the science of sound with easy experiments and examples from everyday life.

Crickets, clarinets, and vocal chords: All vibrate. All make sound.

Here is science learning at its best: a **kid-friendly**, **accessible text**, with **bold, retro-style illustrations**, and **hands-on experiments** you can try at home!

Using everyday items like straws, balloons, rulers, and wax paper, readers can:

- See how sound can pass through a string
- Use four straws to hear high and low sounds
- Show how vocal chords work
- Use wax paper to see sound vibrate
- Learn how sound waves work

And much more! Glossary included!

Classroom Discussion & Activities

- **Demonstrate an understanding of the word *vibrate*** by listing things in the room that vibrate (i.e., the heating and the air-conditioning system). What kinds of sounds do you hear? Are they high sounds and low sounds? Which are loud and which are soft? Discuss the difference between a high and a low sound and between a loud and a soft sound. How is an announcement made by a teacher in the classroom different from one made by the principal on the intercom? Explain how each sound represents vibration.

- **Review the definition of *sound waves*.** At home, listen for outside sounds at night and in the daytime. How are night sounds different from daytime sounds? Explain why it is easier to hear specific sounds at night. How does the experiment with the spring toy on page 8 offer an explanation?

- **Listen to the melodious sounds of a variety of musical instruments** on the following website: beginband.com/sndclips.shtml. Which instruments make the high sounds and which ones make the low sounds? Identify the instruments that are similar to the trombone and require the musician to vibrate their lips to play the notes. Explain how the woodwind instruments work. How does the musician control the loud and soft sounds of an instrument? Discuss how an orchestra or a band demonstrates the scientific facts about sound.

- **Consider the way the vocal cords work,** and discuss why singers open their mouth wide when they are singing loud, high notes. How does this explain the concepts of *vibration* and *sound waves*.

- **Play a game of "gossip."** Cover your ears and listen as someone reads a short sentence. Then tell the sentence you heard to another person whose ears are covered. Then see how the original sentence differs from this one. How does covering your ears muffle the vibration of the voice and cause the ear drum to hear incorrectly? It's common for babies and toddlers to wear ear coverings at concerts, sporting events, and fireworks displays. Explain why this is important.

Guide prepared by Pat Scales, retired school librarian and independent consultant, Greenville, South Carolina.

About the Creators

David J. Ward, author of *I Heard a Sound*, entered college to study radio and television but quickly found his true passion was science. He finished with a master's degree in geology. After working as a geologist for seven years, David became a high school science teacher and has been teaching ever since. The classes he teaches are physics, astronomy, geology, and earth science. David lives in Colorado with his wife and two boys. He like to play basketball, hike in the mountains, and play bass guitar.

Eric Comstock, illustrator of *I Heard a Sound*, was encouraged to pursue a career in the arts after taking an illustration class in college. After working in advertising for 11 years, he shifted gears and took up freelance illustration. Eric is inspired by music, and his passion for children's books grew from their colorful expression, which reminded him of music on the page. He collects old jazz albums to open up his creative pathways and stir up new ideas. Eric lives in Austin, Texas, where he and his wife, who is also an artist, work together while raising four kids and one dog.