# The Science of Sound

Science is fun for kids of all ages. Experiments that dazzle, models that demonstrate, and activities that fascinate are fun for children to watch and participate in. But scientific explanations are often difficult for early elementary students to grasp. By third grade, students are familiar with the scientific process, and are ready to learn the “why” behind science.

Here’s a quick and easy sound science experiment that helps to add a visual element to the science of sound. What causes sound? In this activity, your third grader will do more that just find the answer; he’ll see it for himself!

**What You Need:**

- Empty bowl
- Rubber band
- Plastic wrap
- Colored sugar crystals

**What You Do:**

1. Have your third grader cut a piece of plastic wrap big enough to cover the top of the bowl.
2. Have him put the rubber band over the plastic and around the top of the bowl to hold the plastic in place. Make sure the plastic wrap is held tight, and isn’t sagging.
3. Next, sprinkle a small pinch of sugar crystals in the center of the plastic.
4. Now, have him get down close to the cup, and say his name aloud. Watch the sugar crystals. Ask him to describe what he saw happening.(The sugar crystals look like they’re on a trampoline! They're moving!)
5. Ask him to try to explain what is happening. If he offers his breath as an explanation for the sugar moving, have him try the experiment again, only this time he should hum instead of talk, and be careful not to breathe on the sugar. Do they still move?
6. Ask your third grader to think of ways of altering his voice to repeat this test. (eg: louder, softer, singing voice, speaking voice, high pitch, low pitch, whisper, etc.)
7. For fun, try making other sounds and testing the effects of the vibrations. Try banging on a pot. Try stretching a rubber band across the ends of your fingers, and then give a pluck. Try making a clucking sound with your tongue. Observe the sugar. What happens?

**Explanation:**

Sound is created by vibrations. Have your child put his hand on his throat to feel the vibrations when he talks. These vibrations caused the plastic to vibrate, too, which made the sugar move.