



NAME \_\_\_\_\_

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## Pictures You Can Hear: The Ox-cart MUSSORGSKY "Oxcart" from Pictures at an Exhibition

### SCIENCE OF SOUND



Just like you can paint pictures with a brush and paint, music can paint pictures with sound! This music in this episode is one of the pictures you can hear, painting a picture of an ox pulling a very heavy cart full of rocks. But how is the sound created? Let's find out!

### HOW IS SOUND MADE?

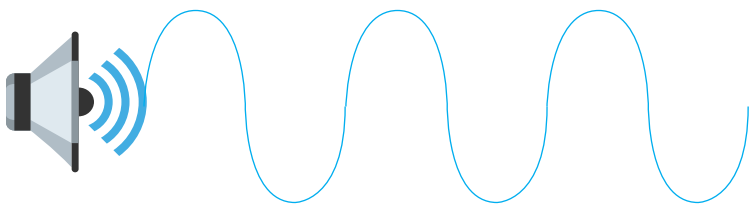
**Sound** is a type of energy you can hear made by **vibrations**. How does this happen?

1. When an object is disturbed (for instance, hitting a drum!), it causes the object to vibrate, or move quickly back and forth.
2. This causes the air around it to vibrate, creating soundwaves that travel through the air.
3. Soundwaves reach your eardrum, which makes you hear sound!

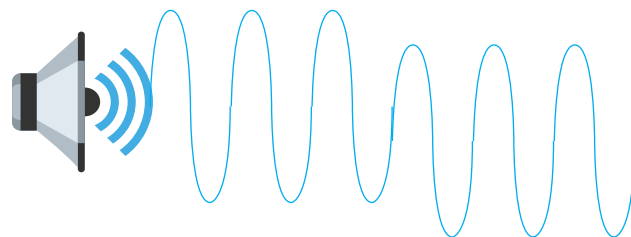
Watch [this video](#) to see how it works!

There are lots of different sounds we hear every day. Each sound is different in volume and pitch.

**Volume** is how loud or soft the sound is, and **pitch** means how high or low the sound is to our ears.



**When soundwaves move slowly and are farther apart, the pitch is low.**



**When soundwaves move fast, the sound is higher in pitch.**



## QUICK QUESTIONS

1. Can you name three animals that make high-pitch sounds?

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The soundwaves for high-pitch sounds move FAST or SLOW. [Circle one]

2. What animals make low-pitch sounds? Name three.

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The sound waves for low-pitch sounds move FAST or SLOW. [Circle one]

3. Do the ox and cart make high or low sounds? \_\_\_\_\_