



Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences --particularly students of color and girls -- by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning. STEM@Home makes activities around science, technology, engineering, and math accessible and fun to do at home. This STEMbook activity, resources, and more are available at www.projectexploration.org/stemathome.

In this activity, you will:

Learn how sound travels by doing this really cool sound waves experiment and making your very own gong with a kitchen spoon.



Supplies Required:

Metal spoon
4 feet of string or yarn
Ruler

Video

What is sound? <https://tinyurl.com/zupdsupk>

Overview

Can you hear vibrations? Sound is simply vibrations that travel through the air or through another medium. In this experiment, hitting the spoon with a ruler makes the spoon vibrate. Those vibrations travel up through the string into your ears, which your brain interprets as sound.



Instructions

1. Tie the handle of the spoon to the middle of the string.
2. Wrap each end of the string a few times around your index fingers.
3. Hold your fingers up close to your ears and let the spoon hang free at your waist.
4. Have a friend hit the spoon with the ruler.

Observations: What can you hear when your friend hits the spoon with the ruler? Does it sound different when the string is held close versus holding the string far away from your ears? How long does the sound echo?

Now Try This! Try attaching different sizes of spoons and forks to the string to see how they each sound when hit with a ruler.

Additional Resources

1. Sound waves in action: <https://tinyurl.com/wyyxvr4j>

Share It Out

Share on social media: Record a video or take a picture of your activity and post the results online using the hashtags:

#SoundWaves
#ProjectExploration
#StemAtHome

Tag a friend and challenge them to do it, too!

For more activities like this one, go to www.projectexploration.org/stemhome. If you're interested in learning more about Project Exploration and our free events, programs, and activities, please find us on social media and be sure to follow!



Call or text us for help: 312-772-6634

www.projectexploration.org