

Want To Be Surprised?

Illustrated by Laurel Aiello

Whenever children do this activity, it is always fun to watch their faces. Children are so surprised at what they are hearing. All they have to do is allow a metal hangar with string attached to bang against a table, chair, or any solid object.

You Will Need

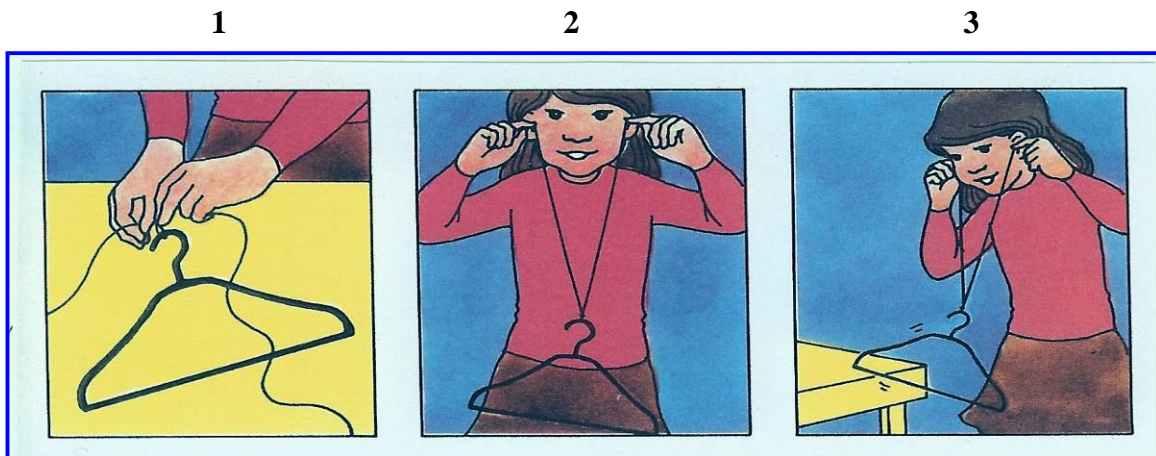
metal clothes hangar

string, about 36 inches (3 feet)

scissors

What to Do

1. Cut a piece of string that is 3 feet long (36 inches).
2. Tie the middle of the string to the hangar (Illustration 1).
3. Hold the string and let the hangar gently hit a door, chair, or table. The sound is about what you would expect. However, you should feel the string vibrating.
4. Now wrap the ends of the string 2 or 3 times around the tip of you index fingers.
5. **Gently** place your fingertips on the opening of your ears (Illustration 2). Do not stick your fingers in your ears.
6. Swing your body and allow the hangar to gently bump a chair, table, or door. (Illustration 3).



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What Did You Observe?

Are you amazed? Did you hear bell-like tones? You hear these sounds because the vibrations create sound waves. These sound waves carry the vibrations to your ears. Electrical signals are then created within your ear and these signals are sent to your brain.

Try This

Repeat the activity but this time gently place your fingertips on the bone behind your ear lobes. Did you hear bells? The hangar still makes the same sound. However, when your fingers are in your ears, more of the sound reaches your ears.

Explore

If you like this activity, make sure you try the activity *Making a String Telephone*. You will find this activity at www.pmec.org. Just click on Science Activities.