



4E).

Musical coat hanger

Turn a metal coat hanger into a gong.

YOU WILL NEED:

A metal coat hanger with two pieces of string attached to the corners,
A spoon.

SAFETY:

No real safety issues.

INSTRUCTIONS:

- 1). Put your index finger through each loop and hold it up so that the coat hanger dangles.
- 2). Have a friend tap the hanger with the spoon.
Can you see and feel it vibrating?
Can you hear it?
- 3). Now put your fingers in your ears and bend over so that the hanger hangs freely.
Have a friend tap the hanger again with the spoon.
What can you hear this time?

EXPLANATION.

When hit, the vibrating coat hanger makes the air around it vibrate.

The molecules in the air are too spread out to easily pass on the vibrating sound waves.

The molecules in solids are close together and the sound waves pass easily from one to the next.

The string and your finger are a solids and so the vibrations of the hanger pass all the way to your ears.