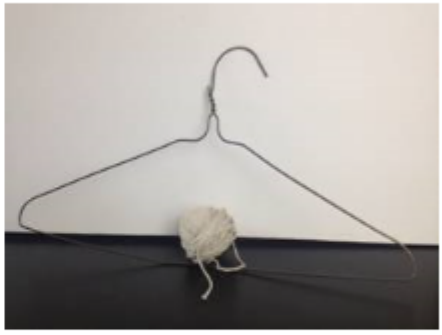
Clanging Coathanger Sounds!



You've just got to give this experiment a go! I've got to be honest, the equipment looks a bit basic but doing this experiment is an almost magical experience and a phenomenal way to get children thinking about sounds!

What do I need:

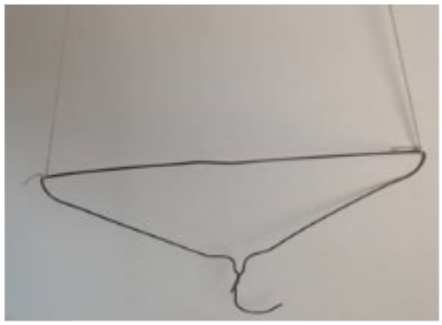
- A old-school metal coathanger
- Some string

How do I do it?

STEP1 - Cut two lengths of string each around 40cm long.

STEP2 - Tie one length of string to each of the corners of your coathanger and that's it, you've made your "clanging coathanger"!

STEP3 - Time to give it a go, hold one bit of string in each hand and swing your coathanger into something solid, (like you desk!), does it make much of an impressive noise? Thought not!



STEP4 - To really put it to good use wrap one piece of string round one finger and the other piece of string round on finger of your opposite hand. The put your fingers in your ears and once again bang the coathanger on your desk! Sounds just a little bit different, doesn't it!

What's going on?

How come it sounds so awesome? Well, the first thing is to consider is: 'how come it makes a noise at all'? Every sound you've ever heard in your life is caused by a vibration and in this case it's the metal coathanger that's vibrating.

So how come putting the string in your ears makes a difference? This is all to do with how sounds travel. As the sound travels through the air, the molecules in the air are far apart and the sound is poorly transmitted. When you've got your fingers in your ears the sound travels through the string and the molecules are much closer together, so you get to hear the true sound!

More Fun Please - Experiment like a real scientist!

- Does it have to be string that you use?
- What else could you try?
- What could you replace the coathanger with? - oh, get out there and show your friends too!