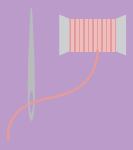
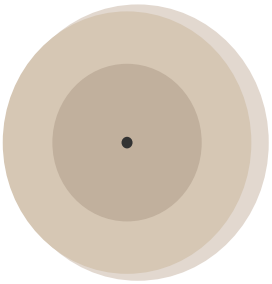
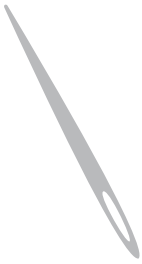
STEM CHALLENGE

You will need:

- Paper cup
- Yarn and Needle
- Paper Clip

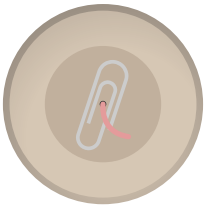



Step 1: Make a small hole in the center of bottom of paper cup using a needle.

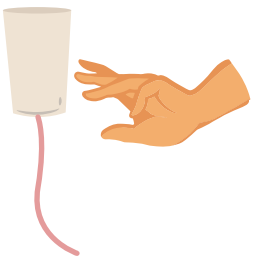



Step 2: String one end of the yarn with the paperclip.

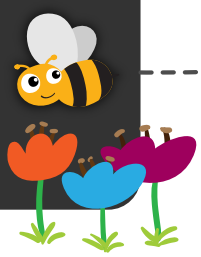
Step 3: Thread the yarn through the hole in the cup so that the paper clip is at the base of the cup with yarn hanging through.




Step 4: Wet the yarn with water and pull along the yarn with your fingers.

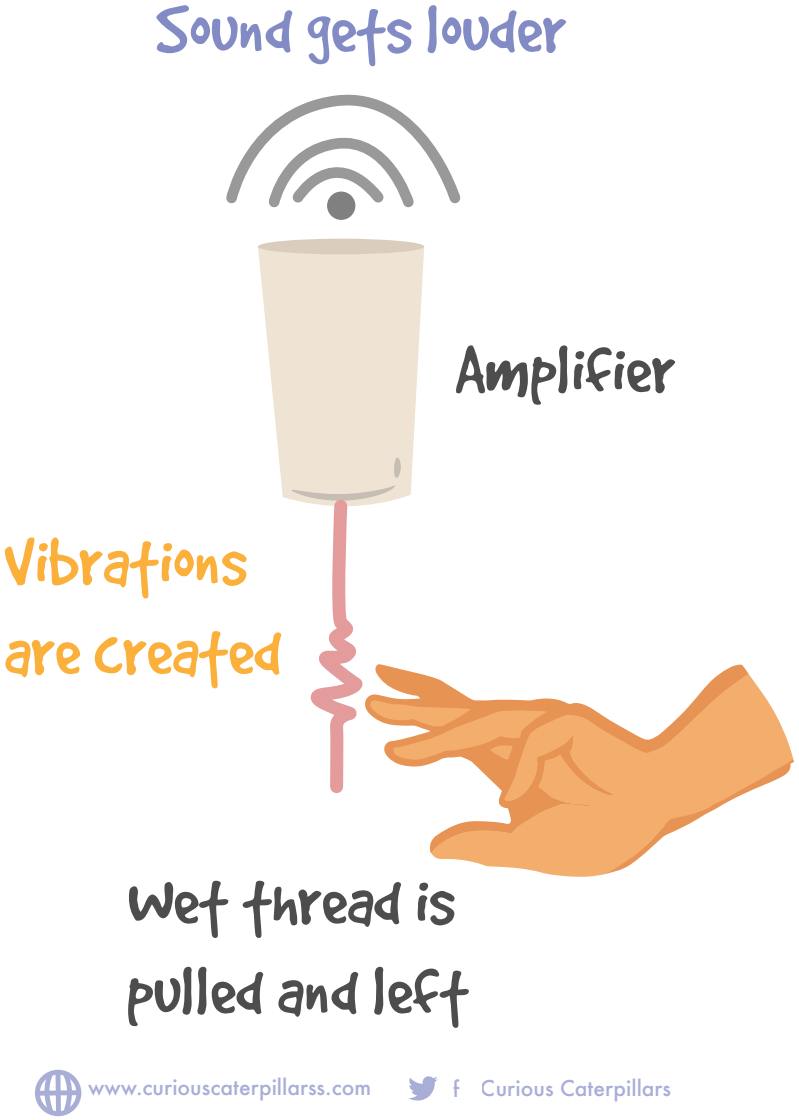


Difficulty Level – Easy
Time needed – Under 10 minutes
Grade Level – Grade I and above



Science Behind the Sound Cup

As you pull the string with your fingers, vibrations are created which travel up the string to the cup.
The cup acts as an amplifier and makes these louder.

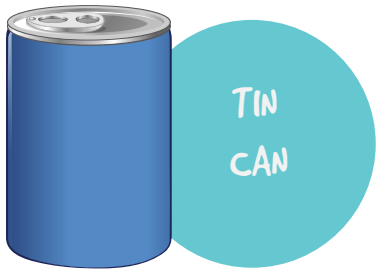


But why wet the string?

Water makes your hands and yarn stick more with each other, making stronger vibrations.

STEM Sound Cup Challenge

Try using cups of different material
– a tin can, plastic cup or paper cup.



Which one makes the loudest sound?

Use dish soap instead of water.
Is the sound louder now? Why?

Vary the length of the yarn.
Does length make a difference?