

# [ Camp Carolina ]

presented by **TAR HEELS TOGETHER**

Please build and try the String Telephone before this session.

## **Make a String Telephone**

### **What you will need:**

- 2 paper cups
- A sharp pencil or sewing needle to help poke holes
- String (kite string and fishing lines work well)

### **Instructions:**

1. Cut a long piece of string, you can experiment with different lengths but perhaps 20 meters (66 feet) is a good place to start.
2. Poke a small hole in the bottom of each cup.
3. Thread the string through each cup and tie knots at each end to stop it pulling through the cup (alternatively you can use a paper clip, washer, or similar small object to hold the string in place).
4. Move into position with you and a friend holding the cups at a distance that makes the string tight (making sure the string is not touching anything else).
5. One person talks into the cup while the other puts the cup to their ear and listens, can you hear each other?

### **What is happening?**

Speaking into the cup creates sound waves which are converted into vibrations at the bottom of the cup. The vibrations travel along the string and are converted back into sound waves at the other end so your friend can hear what you said. Sound travels through the air but it travels even better through solids such as your cup and string, allowing you to hear sounds that might be too far away when traveling through the air.

Source: <https://www.sciencekids.co.nz/projects/stringphone.html>