Cup Telephone for kids

The Peabody Workshop · Make Some Noise · grades K–3rd · 15 minutes

Let's build a telephone that needs no batteries at all! Sound is a shake, and a tight string can carry the shake from one cup to the other. This easy build costs nothing if you have the things below at home. One step is a grown-up's, and each one is marked.

Safety

- Small parts! Keep them away from little brothers and sisters.

What you need

- Paper cups: 2
- String or yarn: a long piece, as long as a room
- Paper clips: 2
- A pencil

Tools: Kid scissors.

Steps

1. A grown-up does this one. A grown-up pokes a small hole in the bottom of each cup with a pencil. Push the pencil from the inside out, slowly. The hole only needs to fit the string.
2. Cut a long piece of string, as long as your room. Longer is fun, but the string has to stay tight, so pick a length you can stretch out.
3. Push one end of the string through the hole, into the cup. Twist the end to a point, or wrap a little tape round it, so it slides in.
4. Tie the end inside to a paper clip, so it can't slip out. The paper clip is bigger than the hole, so it holds the string when you pull.
5. Do the same with the other cup on the other end.
6. Walk apart with a friend until the string is tight and straight. Don't let the string touch anything: a chair or a wall soaks up the sound.
7. Talk into your cup while your friend holds theirs to an ear.

Test it

How many big steps apart can you still hear a whisper? Count in steps: more is better. Try it twice and keep the better number.

Why it works

Your voice shakes the bottom of the cup. The tight string shakes too, all the way along, and shakes the bottom of the other cup. That cup shakes the air inside it, and your friend's ear

hears the shake as your voice. A floppy string can't pass the shake along.

Make it better

1. Try a longer string, or a fishing line.
2. Let the string go floppy: can you still hear?
3. Add a third cup tied to the middle of the string for a party line.

Free at peabody.kids/build/cup-telephone