



**MEMORY CYCLE:  
ARTIFACTS RE-SONIFIED**

The Science  
of Sound



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## Experiment One: See the Vibrations

### Materials

A plate, dish, or bowl	Plastic wrap	Salt	An elastic band	A speaker, or a metal bowl and spoon
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### Method

1. Stretch plastic wrap over the top of your plate, dish, or bowl, so it looks like a drum.
2. If possible, use an elastic to secure the plastic wrap in place. Make sure the plastic wrap is as tight as possible across the bowl.
3. Sprinkle a small amount of salt on the plastic wrap.
4. Point the speaker at the bowl and turn it on, as loud as it will go. Watch the salt move! If you don't have a speaker, you can hit a metal bowl next to the bowl with the plastic wrap and salt, and it should have the same effect.

### Experiments (make a hypothesis before trying these out!)

- A. What will happen if you play the music more loudly or quietly?
- B. What will happen if you play sounds with higher or lower pitches?
- C. What will happen if you play the sounds closer to the speaker, or further away from the speaker?



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## Experiment Two: Re-Sonification

### Materials

A metal slinky      Cups, cans, or tubs of different sizes and materials      A metal spoon

### Method

1. Poke one end of the slinky into the bottom of a cup, and twist it so one full coil of the slinky is resting inside the bottom of the cup. You might need to poke a hole in the bottom of the cup first.
2. Hold the bottom of the cup at shoulder height, with the slinky dangling downwards. Bounce the cup up and down, and listen to the sounds the slinky makes.
3. Use the metal spoon to tap the slinky, and listen to the way the vibrations this causes change the sound.

### Experiments (make a hypothesis before trying these out!)

- A. What will happen if you use a cup that is made of the same material as your first cup, but which is bigger or smaller?
- B. What will happen if you use a cup that is the same size, but made of different material?
- C. What will happen if you attach the slinky to something that isn't cup-shaped?



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