

# Dancing Sprinkles

**Ever wondered if you can see sound?  
Well, in this experiment, you'll turn music into motion.**

**Ages: 9 - 11    Under 30 minutes**

Any vibrating thing (like a speaker) will make a sound. As the speaker vibrates and creates sound, it pushes the air around it, setting up a vibration in the air - that's a sound wave! In this experiment, the vibrations move through the plastic wrap, pushing and shoving the sprinkles around.

## MATERIALS

- Re-closable plastic bag
- Wireless speaker
- Bowl or vase, large enough to fit speaker
- Plastic wrap
- Device (phone or laptop) connected wirelessly to fit the speaker

## STEP-BY-STEP TUTORIAL

- 1** **Step 1**  
Gather your materials.



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- 2) **Step 2**  
Turn on the speaker and place it in the bowl.



- 3) **Step 3**  
Stretch the plastic wrap across the top of the bowl. Make it as tight as you can, with as few wrinkles in the wrap as possible.



- 4) **Step 4**  
Pour some sprinkles into a re-closable plastic bag. Then seal the bag, leaving a pocket of air, so the sprinkles have room to dance!



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- 5 **Step 5**  
Place the bag on top of the plastic wrap on the bowl.



- 6 **Step 6**  
Using your device, find different songs and turn up the volume to watch the sprinkles dance. For the best results, download a tone generator and see what happens when you play.



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## LEARN MORE

As the tones change, the vibrations change, and the sprinkles move as if they are dancing. You'll see the sprinkles move away from where the vibrations are the strongest. To observe what happens to the sprinkles when you play a single sustained note, link your device to a tone generator. A pure tone will create a consistent, unchanging vibration in the plastic. Instead of dancing around, the sprinkles should collect in places where the plastic isn't vibrating, making patterns that depend on the frequency of the pure tone.

## SOURCE

<https://www.kiwico.com/diy/stem/quick-easy-experiments/dancing-sprinkles>

KiwiCo was founded to nurture children's creativity and problem-solving skills through hands-on projects, making it easier for parents to provide enriching activities. The company simplifies the process of building, exploring, and creating together by designing fun and educational experiences that foster creative confidence. With a growing team of designers, experts, and kid testers, KiwiCo aims to equip children with the skills they need to face future challenges. Founder and CEO Sandra, an engineer and mother of three, created KiwiCo to inspire curiosity and exploration in families.