



An Australian Government Initiative



# SOUNDS OF SCIENCE

MEDIUM

**This is an audio-based Brain Break activity where participants listen to a sound and identify its source. While it may not be immediately obvious, all the sounds relate to science in some way!**

The sounds are sorted into 3 categories (easy, medium and hard), and each includes an optional hint, and an explanation about the science behind the sound.

This activity suits read-aloud delivery in person, over a PA system, or video call, and adds variety to the text-only Brain Break quizzes.



**→ TO ACCESS SOUNDS FOR THE MEDIUM LEVEL, VISIT:**

<https://soundcloud.com/soundsofscience2026/sets/medium>

## SOUND 1: SQUEAKING OF SHOES ON A HARD SURFACE

**HINT:** I squeal and I squeak with each rubbery stride, people know I'm coming, it's hard to hide

**EXPLANATION:** If you've ever been to a basketball game, you will be familiar with the sound of the players' squeaky shoes as they travel across the court. But why exactly do shoes squeak on hard floors? Shoes squeak because the rubber on the sole does not glide smoothly across a hard floor, it moves in tiny, super-fast bursts. Little patches of rubber briefly stick, lift and slip, sending fast-moving pulses through the sole, a bit like an earthquake, or flicking a ripple through a rug. The grooves on the bottom of your shoes help line up these tiny vibrations into one clear sound.

**MORE INFORMATION:** <https://www.nature.com/articles/d41586-026-00620-x>

## SOUND 2: OPENING A CARBONATED DRINK

**HINT:** A tiny cloud that's not very loud

**EXPLANATION:** When opening a bottle of lemonade or another fizzy drink, you will have heard this familiar sound. Carbonated drinks fizz because carbon dioxide gas (CO<sub>2</sub>) is dissolved in the liquid under high pressure. A small amount reacts with water to form carbonic acid, which contributes to the drink's slight sour taste. When the bottle or can is opened, the pressure suddenly drops to match the surrounding air pressure, allowing dissolved CO<sub>2</sub> to escape from the liquid. This creates the characteristic hissing sound as gas rushes out, while bubbles form, rise, and burst at the surface, producing the familiar fizz.

**MORE INFORMATION:** <https://theconversation.com/the-bubbly-chemistry-behind-carbonated-beverages-210111>

## SOUND 3: GLACIER CALVING

**HINT:** A rumble, a crack, an ice-cold stack... when this happens, there's no turning back

**EXPLANATION:** Glacier calving is when large chunks of ice break off a glacier, often forming icebergs and sometimes producing loud cracking or booming sounds. While glacier calving is a natural process, climate change is accelerating glacier melt and retreat in many places, making some glaciers thinner and less stable, which can increase ice loss and contribute to rising sea levels.

**MORE INFORMATION:** <https://www.arcticwwf.org/the-circle/stories/what-the-sounds-of-iceberg-calving-can-tell-us/> • <https://www.earthdata.nasa.gov/topics/cryosphere/glaciers/glacier-power/what-is-glacial-calving>

## SOUND 4: DRONE SOUND

**HINT:** The spinning sound lifts this object off the ground

**EXPLANATION:** If you find the buzzing of drones annoying, you're certainly not alone. But why do drones make the sound they do? Drones hum because their propellers spin very fast to push air down and keep the drone in the air. The high-pitched hum comes from the propellers spinning hundreds or even thousands of times each minute.

**MORE INFORMATION:** <https://theconversation.com/drones-to-deliver-incessant-buzzing-noise-and-packages-116257>

## SOUND 5: FLUORESCENT LIGHT FLICKERING ON

**HINT:** The question to ask is, what excites these gases?

**EXPLANATION:** Fluorescent lights work by passing electricity through a gas inside a fluorescent tube, creating invisible ultraviolet light. A special coating on the inside of the tube absorbs this invisible light and glows, producing the visible light we see. The slight flicker can happen because the electricity powering the light rapidly switches on and off many times each second, although this is usually too fast for our eyes to notice.

**MORE INFORMATION:** [https://www.healthywa.wa.gov.au/Articles/J\\_M/Mercury-and-compact-fluorescent-lamps](https://www.healthywa.wa.gov.au/Articles/J_M/Mercury-and-compact-fluorescent-lamps)



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We'd love to hear your feedback on these questions! Share your thoughts with us:

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