

Sound is a wobble



Lesson at a glance

Open with hands on throats while humming — what can they feel? Children share partner ideas about what happens when something makes a sound, then watch rice jump on a cling-filmed drum and try a flicked ruler, a plucked elastic band and another hum at their desks. Name the shaking as a wobble (vibration) on the drum interactive, check what wobbled each time, and draw one sound maker in the Investigation Journal.

Learning objectives

- Feel and describe that sounds are made when something wobbles or vibrates
- Draw one thing that wobbled to make a sound

Before the bell – prep

Night before: stretch cling film tight over an empty biscuit tin or small drum and secure it; have a pinch of dry rice ready. Set one ruler and a few elastic bands per pair; clear desk edges so rulers can overhang. Keep the drum out of sight until the exploration step.

Materials

Item	Qty	Per	Source	Low-cost substitute
30 cm plastic or wooden ruler	1	group	classroom	a sturdy strip of firm card about 30 cm long
elastic bands (medium size)	3	group	classroom	a rubber hairband or a short piece of stretchy fabric
small drum or empty biscuit tin with cling film stretched tightly over the open top	1	class	classroom	an empty yoghurt tub or ice-cream tub with cling film stretched over the top
dry uncooked rice	1	class	supermarket	dry lentils or couscous grains
Investigation Journal page	1	pupil	provided printable	a blank page with the heading My wobble that made a sound

**Safety watch-point**

Twang rulers and bands gently, away from faces; no aiming bands. Class-friendly drum taps only. Rice is not for eating — wipe spills and wash hands if it hits the floor.

**Teaching moves**

- **Getting Started:** Hum with your own hand on your throat so the class can copy. Keep it short and surprising — ask two or three children what they feel and accept buzz, tickle or shake. Do not hand out rulers, bands or the drum yet.
- **What do you think?:** Pose the big question, then think-pair-share. Collect three or four ideas on the board in the children's words (air comes out, it shakes, the thing hits something). Leave them up; do not name vibration or correct misconceptions yet.
- **Feel the wobble:** Run the whole-class drum first: wonder, predict, one gentle tap, observe rice jump then settle, and voice that the skin was wobbling. Then send pairs to desks for ruler, band and throat only — circulate asking 'What is moving? When does the sound stop?' Finish with a quick shared drum look so every child sees the rice up close. Keep IWB on the beat you are on.
- **What did you notice?:** Whole-class oral share only — no drawing yet. Revoice toward shake, buzz, jump, wiggle, still. If someone thinks only the hit makes the sound, point back to the rice still dancing after the tap.
- **See the wobble:** Drive the drum interactive in display mode on the IWB. Lead with the picture: watch the skin, then name wobble/vibration and sound after they have looked. Note the rings are a picture of the idea — we cannot see air wobble. Keep any Hear-it volume class-friendly, or leave tone off.
- **What was wobbling?:** Hold up each real object and take choral or volunteered answers: free end of ruler, the band, throat/voice box, drum skin. Draw out: every time we heard a sound, something was wobbling; when the wobble stopped, the sound stopped. Link back to the board predictions.
- **Draw a wobble that made a sound:** Pupils draw one clear example on the Investigation Journal page — ruler, band, throat or drum with rice; a simple label is a bonus. Circulate with one quiet question: 'What was wobbling in your picture?' Fast finishers may add a second tiny sketch or whisper an everyday home example to a partner.
- **What we found out:** Lead the class join-in: 'Sound is what we hear when a wobble reaches our ears.' Invite two or three everyday notices (speaker, fridge, school bell). Collect kit, brush rice into the bin, wipe desks; wash hands if rice was handled from the floor.

**What it should show**

Rice should jump/dance on the drum skin when tapped and settle when the skin goes still. The free end of the ruler and the elastic band should be felt wobbling only while they sound; the throat buzzes during a hum. A group that 'hears' sound with nothing moving usually flicked then waited too long — re-feel during the sound. Success: each child felt or watched at least one wobble and can point to the part that moved in their drawing.





Misconceptions & interventions

- **Sound is only air leaving the mouth, or only loud bangs count as sound.** — Point back to the silent-looking ruler and band still making a twang, and the quiet hum in their throat. Ask: was air shooting out of the ruler, or was something wobbling?
- **Only the hit or pluck makes the sound — not the ongoing wobble after.** — Tap the drum once and hold attention on the rice still dancing after the tap. Revoice: the sound lasts while the skin keeps wobbling, then both stop together.
- **The eye or the ear makes the sound.** — On the IWB drum scene, trace from the shaking skin along the rings to the ear. Say: the sound starts at the wobbling thing; the ear only receives it.

Differentiation

Emerging	Developing	Proficient
• Stay with the teacher at the drum station and use one word for what they feel (jump, shake, buzz); draw the drum with rice and point to the skin. • Partner holds the band or ruler while they only feel and say whether it is still moving.	• Try all three desk examples and name what was wobbling each time before choosing one to draw with a simple label.	• Compare a soft tap and a slightly stronger tap on the drum and say which wobble looked bigger. • Add a second tiny sketch or name an everyday wobble at home (speaker, washing machine) to a partner — not an on-device task.

Cross-curricular hook

Link to Music — feel the wobble of a classroom drum, guitar string or tuning fork the same way they felt today's sound makers.