

Magnets: what do they pull?

Lesson at a glance

Open by holding a chunky magnet just above a paperclip so it jumps — ask how it moved without a touch. Name magnet and pull, model one wonder–think–try–notice cycle, then children point-guess for two or three tray objects. In short station bursts, pairs hold the magnet over each item and feel which jump. Each child draws one pulled object on the Investigation Journal drawing page, then a carpet talk gathers the pattern that many metal things pulled while pegs and lolly sticks did not.

Learning objectives

- Guess then try which everyday objects a chunky magnet will pull
- Draw one thing the magnet pulled

Before the bell – prep

Day before: pre-test every tray object with the lesson magnets. Pack one chunky magnet plus a mixed tray per pair (paperclip, steel lid/washer/screw, wooden peg, lolly stick; steel spoon or key only if it pulls). Aim for two clear pull and two clear not-pull items. Cover trays until Look and wonder. Keep magnets away from tablets.

Materials

Item	Qty	Per	Source	Low-cost substitute
strong chunky magnets	1	group	school kit	large fridge magnets only if strong enough to lift a paperclip from about 1 cm above the table; if it will not jump, use the school kit magnet
mixed objects tray (paperclip; steel bottle lid, washer or screw; wooden peg; lolly stick; steel spoon or key only if pre-tested)	1	group	classroom	any mix of safe steel and non-metal classroom objects (e.g. scissors stay with the teacher; use a steel bottle lid instead of a key)
shallow sorting or sharing tray	1	group	classroom	a lunchbox lid or shallow cardboard box lid
Investigation Journal page	1	pupil	provided printable	a blank A4 page for drawing

**Safety watch-point**

Chunky magnets only; keep magnets away from mouths, faces, tablets and devices. No objects in mouths. Count magnets back into the box at tidy time.

**Teaching moves**

- **Getting Started:** Have one chunky magnet and one paperclip ready in hand; keep the full trays covered. Hold the magnet just above the paperclip so it jumps. Ask once: How did it move without me touching it? Take two or three ideas only — do not name magnet or metal yet.
- **Look and wonder:** Uncover one tray. Voice magnet and pull from the callout, then model one full cycle aloud on the paperclip: I wonder, I think yes, I try, I noticed the jump and tug. Children point-guess pull or not pull for two or three objects only. Guesses are never wrong.
- **Magnet station play:** Run 2–3 short bursts of about four minutes with a clap or chime stop signal so magnets go down together. Between bursts, one-minute carpet: Who saw a jump? Which ones stayed still? Circulate with Did it jump? Can you feel a pull? Partners swap holder and watcher roles.
- **Show and draw:** Hold up the Investigation Journal page and call it the drawing page. Children draw one thing their magnet pulled; they may point to the real object while drawing. Scribe a single word only if asked. Ask pairs: Show me the one you will draw. Did you feel a pull?
- **Make-sense talk:** Carpet circle. Invite three or four children to hold up their drawing or point to the object. Revoice: So the magnet pulled the paperclip... the lid... Gently gather that many jumpers were metal (steel); pegs and sticks did not. Link to a fridge magnet at home if you have one to hold up. Oral only — no writing.

**What it should show**

Paperclips almost always jump strongly; steel bottle lids, washers and screws usually pull; wooden pegs and lolly sticks stay still. Keys and spoons pull only if steel — many classroom ones will not. A modern euro coin may pull weakly or not at all; treat that as a discovery. Affirm a clear attempt at one pulled object on the drawing page.

**Misconceptions & interventions**

- **Children say the magnet sucks or is magic.** — Accept the wonder, then revoice with pull: Feel the tug as it jumps and sticks. Keep using pull through the station bursts.
- **Children think every metal thing, or every shiny thing, will pull.** — Wonder aloud together when a steel-looking key or spoon stays still: Not every metal pulls the same. Point back to the clear pullers on the tray.



Differentiation

Emerging	Developing	Proficient
• Limit the pair to three pre-chosen objects (one strong pull, one not-pull, one maybe) and stay nearby for the first burst. • Accept pointing to the pulled object plus a simple mark on the drawing page.	• After each try, whisper Did it jump? Can you feel a pull? before moving on. • Fast finishers draw a second pulled object on the back or point to one that did not pull and tell their partner.	• Invite a new guess before each remaining object. • From a teacher-approved extras tray only, let them try one more safe item and say pull or not pull.

Cross-curricular hook

Links to Aistear play and oral language: children name, point and retell which objects jumped using pull.