

Magnet sorting: yes or no

Lesson at a glance

Open with two empty floor hoops and one chunky magnet — pulls versus does not pull. Junior Infants point-guess on a few tray objects, then take short adult-supervised turns at a magnet station while the class choruses yes or no. Real objects go into the shared hoops; the picture-sort interactive extends the sort with nail, wooden block, scissors and rubber. Children draw one pull and one no-pull in the Investigation Journal and name that magnets pull some things and not others.

Learning objectives

- Test objects with a magnet and sort them into pulls or does not pull
- Say that magnets pull some materials and not others

Before the bell – prep

Set one or two teacher-supervised stations only: chunky magnets (no small neodymium), mixed tray of 8–10 large objects (rim-taped food tin, spoon, wooden peg, crayon, plastic brick). Two floor hoops with picture labels. Clear tablets and phones away. Print one Investigation Journal page per child.

**Materials**

Item	Qty	Per	Source	Low-cost substitute
strong chunky magnets	2	class	school kit	large fridge magnets (still chunky; never small loose magnets)
mixed test objects (empty food tin (rim taped over), metal spoon, wooden peg, crayon, large plastic building brick), eight to ten chunky objects in all	1	station	classroom	any chunky safe metal and non-metal classroom things: a steel biscuit tin lid with the edge taped, a big wooden block, a plastic beaker, a fabric scrap
sorting hoops	2	class	classroom	two trays, two hoops drawn with masking tape on the table, or two labelled baskets
small trays for objects	1	station	classroom	a shallow box lid or plate
fridge magnet or classroom magnetic catch (for the close)	1	class	classroom	point to a magnetic whiteboard edge or door catch already in the room

Safety watch-point

Chunky magnets only; adult at every active station; stop mouth play at once; keep magnets off tablets and phones; count every magnet back before children leave the carpet.

Teaching moves

- **Getting Started:** Hold up one chunky magnet and the two empty hoops. Keep the object tray covered. Ask who has seen a fridge magnet hold a picture. Do not set the full tray out yet.
- **Look at the tray:** Reveal the tray briefly. Name only three or four objects (tin, peg, crayon, spoon). Children point to the pulls hoop or the does-not-pull hoop. Model one short 'I wonder / I think' on the tin, then move straight to testing — no board explanation of what magnets are made of.
- **Test with the magnet:** Stay beside the station. Model a full cycle on the taped tin, then call pairs for short turns while the rest watch and chorus yes or no. Prompt: Did you feel a pull? Stick or no stick? Only active testers hold the magnet. After the first clear pull, say aloud: the magnet pulls some things and not others.
- **Two hoops:** Use one shared pair of class hoops where everyone can see. After each test, a helper places the real object. Ask: Why does this one go here? What did the magnet do? If the class disagrees, re-test at the station so evidence settles it.
- **Sort the pictures:** Open the picture-sort interactive in explore mode. Read the same question each time: Does the magnet pull it? Drag nail, wooden block, scissors and rubber as the class calls the hoop. A wrong hoop is a friendly 'how could we check?' chat, not a red cross.
- **Show and draw:** Hand out the Investigation Journal page now. Children draw one thing that pulled and one that did not. Circulate: Show me the one the magnet pulled — how do you know? Scribe a label if needed. If drawings are swapped, point back at the class hoops and re-sort orally.
- **What did we notice?:** Stand by the real objects still in the hoops. Point and say in child language: the magnet pulled the tin; it did not pull the peg or the crayon. Hold up a fridge magnet or door catch: Does the door stay shut? Finish with one new classroom object — hands up, then try it at the station.

What it should show

The taped tin pulls every time; peg, crayon and plastic brick do not. Spoons and keys often fail (brass, aluminium or mixed alloys) — accept the evidence and sort by what happened. Keep the tin as the dependable pull. Picture-sort: nail and scissors go in pulls; wooden block and rubber do not. Children typically notice that pull objects feel hard and metal-like.

Misconceptions & interventions

- **It will pull because it looks shiny / metal-looking — gold-coloured plastic or a brass spoon fools them.** — Keep talk on what we feel and see when we try. Re-test the shiny no-pull object at the station and sort by the result, not the look.
- **The magnet pulls everything, or I already know without trying.** — Point at the two hoops after testing: some stuck, some stayed still. Re-voice the anchor line — the magnet pulls some things and not others — and place the object only after the try.

**Differentiation**

Emerging	Developing	Proficient
• Test with your hand over theirs at the station; let them point to the hoop while you place the object. • Scribe the Journal labels; one simple drawing each side is enough.	• After their turn, ask them to tell the watchers yes or no and why (felt a pull / stayed still). • When sorting, prompt: What did the magnet do?	• Name a second tray object that felt the same as their first pull or no-pull. • In the close, predict pull or not on a new classroom object, then check at the station.

Cross-curricular hook

Links to Maths early sorting — two groups by a felt property (pulls / does not pull) using real objects in shared hoops.