

Magnet sorting: yes or no

Lesson at a glance

Open with two empty hoops and one chunky magnet, asking who has seen a fridge magnet hold a note. Children point-guess for three or four tray objects, then take short supervised turns at one or two teacher-run magnet stations while the class choruses yes or no. Real objects go into shared pulls / does not pull hoops; the picture-sort interactive sorts nail, wooden block, scissors and rubber. Children draw one pull and one no-pull on the Investigation Journal page, then close with a fridge-magnet helper talk.

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 supervised magnet stations only: one chunky magnet and one mixed tray each (paperclip, key, metal spoon, wooden peg, crayon, plastic button). Prefer a steel paperclip and steel spoon as clear pull examples. Cover the tray until step 2. Clear tablets and phones well away. Lay two shared class hoops with simple picture labels ready on the floor.

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 (paperclip, key, metal spoon, wooden peg, crayon, plastic button)	1	station	classroom	any safe metal and non-metal classroom bits (steel nail, bottle lid, rubber, lolly stick)
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. Magnets away from mouths, tablets and phones. Count every magnet back in before anyone leaves the carpet.

**Teaching moves**

- **Look at the tray:** Show the tray briefly and name only three or four objects. For each, children point to the pulls hoop or the does not pull hoop. Model one short wonder-and-think on the paperclip, then move straight to testing — no long board talk.
- **Test with the magnet:** Model one full cycle with the paperclip at the front station, then call pairs or small groups while you stay beside the magnet. Everyone else watches and choruses yes or no. Rotate so many children hold the magnet once. After the first clear pull, say in child words: the magnet pulls some things and not others.
- **Two hoops:** Use one shared pair of class hoops where all can see. After each test, a child helper places the real object into pulls or does not pull. Ask why it goes there; if the class disagrees, re-test together at the station.
- **Sort the pictures:** Open the picture-sort interactive in explore mode. Read Does the magnet pull it? for each new card — nail, wooden block, scissors, rubber. Drag where the class calls; a wrong hoop becomes a friendly how could we check that, not a red cross.
- **Show and draw:** Hand out the Investigation Journal page. One simple drawing or mark in each group is enough. Circulate: Tell me one thing in this group. How do you know it goes there? Scribe a word if a child wants a label.
- **What did we notice?:** Lead with child language: the magnet pulled the paperclip; it did not pull the peg or crayon. Hold up a fridge magnet or point to a door catch: Does the door stay shut? Finish with hands-up on one new classroom object, then try it at the station.

**What it should show**

Expect paperclip and a steel spoon to pull; wooden peg, crayon and plastic button do not. Keys often fail (brass, aluminium or mixed alloys) — sort by what happened, not by looks. On the picture-sort, nail and scissors go in pulls; wooden block and rubber do not. Affirm hard, metal-like feel on pull objects without forcing the word metal.

**Misconceptions & interventions**

- **It will pull because it is shiny / metal-looking (gold plastic or a brass key fools them).** — Re-test at the station together. Ask: Did you feel a pull, or did it stay still? Sort by what happened, not by how it looks.
- **Magnets pull everything, or only fridge things.** — Point at both filled hoops and restate the anchor: the magnet pulls some things and not others. Hold up the peg beside the paperclip so both results stay visible.



Differentiation

Emerging	Developing	Proficient
• Guide the magnet with your hand over theirs and let them join the yes/no chorus as watchers first. • Accept one mark or scribble per hoop on the Journal; scribe a label word if they ask.	• Prompt: Did you feel a pull? Stick or no stick? Why does this one go in that hoop?	• Ask them to name a second tray object that felt the same as the first pull, and say what felt the same about the pull group.

Cross-curricular hook

Links to early Maths sorting and classifying — two groups by a yes/no property, said in simple oral Irish if useful (tarraingíonn / ní tharraingíonn).