Paperclip Chains

KIDS HANDS-ON | RUN AT 10:55 | 20 MIN

The point

Iron touching a magnet **becomes a magnet itself — temporarily**. Each clip passes the pull to the next, and the whole chain lives or dies with the real magnet.

Materials

- Strongest magnet per child (the neodymium discs shine here)
- Box of steel paper clips
- Scrap card for a scoreboard (optional)

Steps

1. Hang one clip from the magnet.
2. Touch a second clip to the **bottom of the first** — it holds, touching no magnet. Add a third, and more.
3. Contest: **whose chain grows longest before it falls?** Count the clips out loud.
4. Feel the ends: first clip grips hard, **last clip barely holds** — the field fades down the chain.
5. The reveal: **lift the top clip off the magnet** — the whole chain rains down. Everyone runs this ending.

> *Say: "Each clip borrowed the magnet's power and passed it down the line, like a bucket brigade. Take the magnet away — and every clip goes back to being a plain clip."*

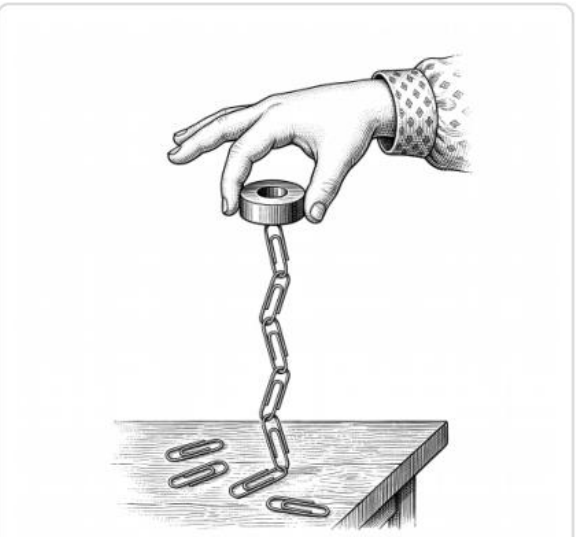


Fig. 3 — every clip in the chain is a borrowed magnet

TEACHER PREP

Count the discs out of the lidded box as you hand them over; write the number down. Weak magnets stall at 2–3 clips — give this activity the strong ones.

SAFETY

Neodymium discs are a **swallow hazard** — count them out, count them back, out loud, every time. Discs nowhere near electronics.

What to watch for

- Clips hanging tip-to-tip (magnetic), not hooked through each other (mechanical)
- A child noticing the grip weakening down the chain unprompted

EXPECTED RESULT

Chains of 4–8+ clips from a strong disc; the last clip holds at a distance impossible without the clips between — each clip **conducts the field along**. Off the magnet, all magnetism vanishes at once.