



# THE INVISIBLE FORCE FIELD!



With the help of a grown up, this experiment uses a “sensory bottle” style setup so you can see how the magnet pulls things without even touching them!



## WHAT YOU NEED



A clear plastic bottle



A handful of metal paperclips (or iron filings if you have them)



A strong magnet (like a wand or a refrigerator magnet)

## GROWN UP TIP!

Corn syrup works even better than water because it is thicker—so the paperclips move slower and it looks extra magical!

## WHAT TO DO

1

Fill the bottle with water or clear corn syrup (syrup makes the movement slower and more “magical”).



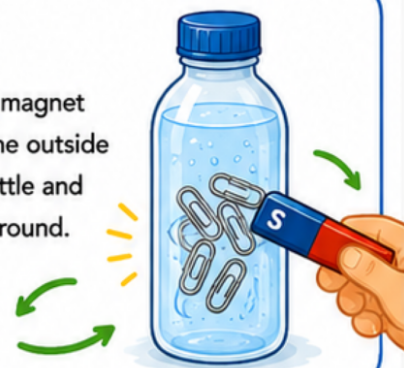
2

Drop the paperclips into the bottle and screw the cap on tight.



3

Hold the magnet against the outside of the bottle and move it around.



## WHAT HAPPENS

The paperclips will “jump” and follow the magnet through the plastic!



Even if the magnet isn't touching the clip, the **magnetic field** (the invisible arms of the magnet) can reach through the water and the plastic to pull them!



### TRY THIS!

Try moving the magnet fast... then slow! Which do you like better?



### LOOK CLOSER!

What happens if you move the magnet up, down, or around the bottle?



### SCIENCE IS AWESOME!

Magnets have an invisible force field that is all around them!

