

Observing the Magnetic Field Lines

⇒ with Iron Filings ⇐

Name: _____

Date: _____

Age/Grade: _____

? QUESTION

What do magnetic field lines look like around a magnet?

💡 HYPOTHESIS

I think the magnetic field lines will

because _____

🧪 MATERIALS

- Bar magnet
- Iron filings
- White paper
- Shallow tray or plastic container
- Paper towel or tissue (optional)

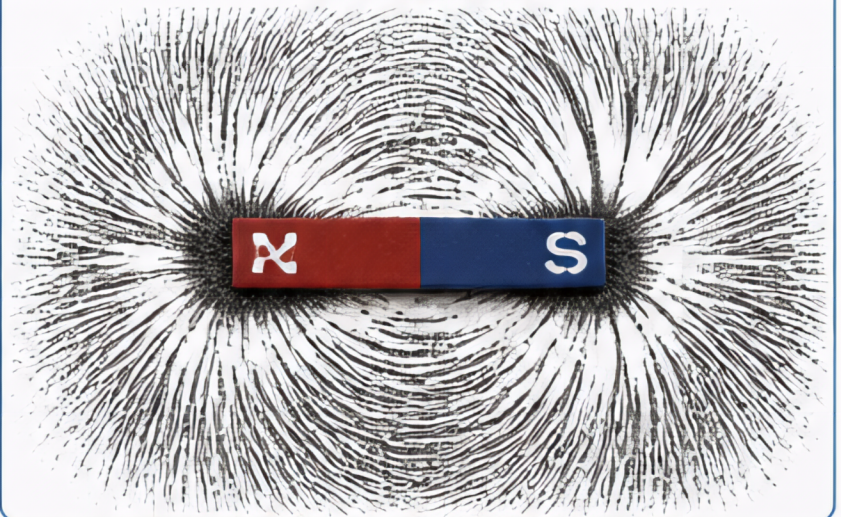
⚙️ PROCEDURE

1. Place the white paper flat inside the tray.
2. Place the bar magnet in the center of the paper.
Do not move it once it is in place.
3. Sprinkle a small amount of iron filings evenly over the paper and magnet.
4. Gently tap the sides of the tray.
Watch the iron filings move and arrange themselves.
5. Observe the pattern formed by the iron filings.
6. (Optional) Use a paper towel to gently remove the filings and try again with a different amount.

🛡️ SAFETY FIRST

- Do not put iron filings in your mouth or eyes.
- Wash your hands after the experiment.
- Keep iron filings away from small children and pets.

EXAMPLE RESULT



👁️ OBSERVATIONS

Draw the pattern you observed or describe what you saw.

✍️ CONCLUSION

What did this experiment show you about magnetic field lines?

★ THINK MORE!

How do you think the pattern would change with two magnets? Draw and explain.
