

# Edexcel IGCSE Physics

## Chapter 6 - Magnetism and Electromagnetism

### Practical Flashcards

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Investigate the magnetic field pattern for  
a permanent bar magnet between two  
bar magnets



# Method 1: Iron filings



# What equipment is needed?



## What equipment is needed?

- Iron filings
  - Paper
- Bar magnets



# Outline the method



## Outline the method

1. Sprinkle iron filings onto a sheet of paper
2. Place the permanent bar magnet onto the paper
3. Add another magnet
4. Experiment with like and unlike poles facing each other



# What will happen to the filings?





What will happen to the filings?

They should move into the shape of the magnetic field.



# Method 2: Plotting Compasses



# What equipment is needed?



## What equipment is needed?

- Bar magnets
  - Paper
- Plotting compasses



# Outline the method



## Outline the method

1. Place the permanent bar magnet onto a plain piece of paper
2. Place a plotting compass somewhere on the page and draw an arrow in the direction the needle points
3. Move the compass and repeat
4. Join up the arrows



# What will the diagram show?



What will the diagram show?

The magnetic field around the magnet.

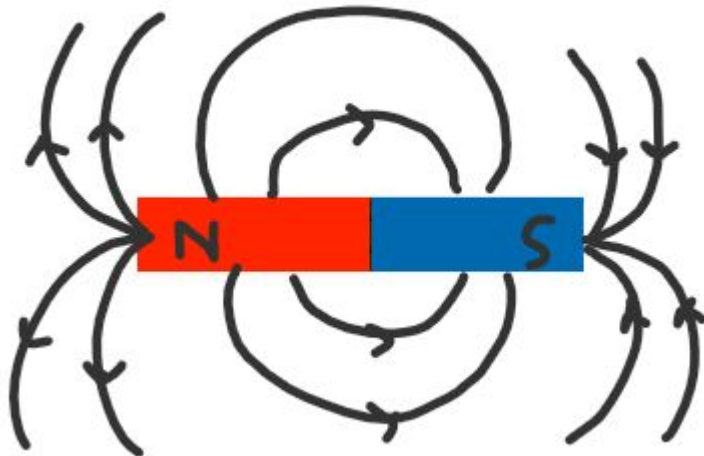




What does the field look like around a  
bar magnet?



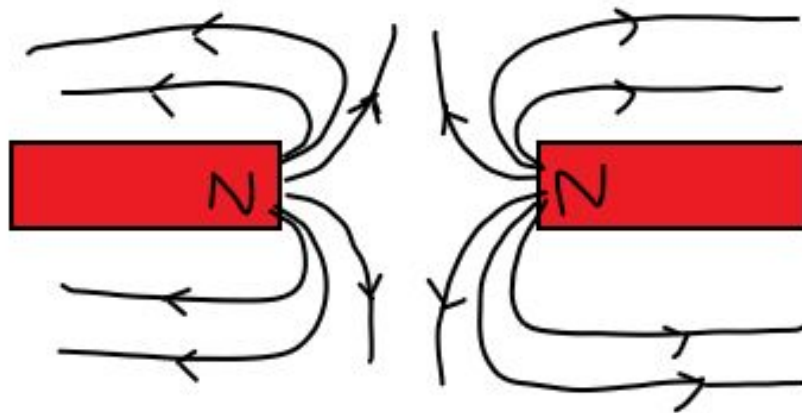
# What does the magnetic field look like around a bar magnet?



What does the field look like between  
like poles?



# What does the field look like between like poles?



What does the field look like between unlike poles?



# What does the field look like between unlike poles?

