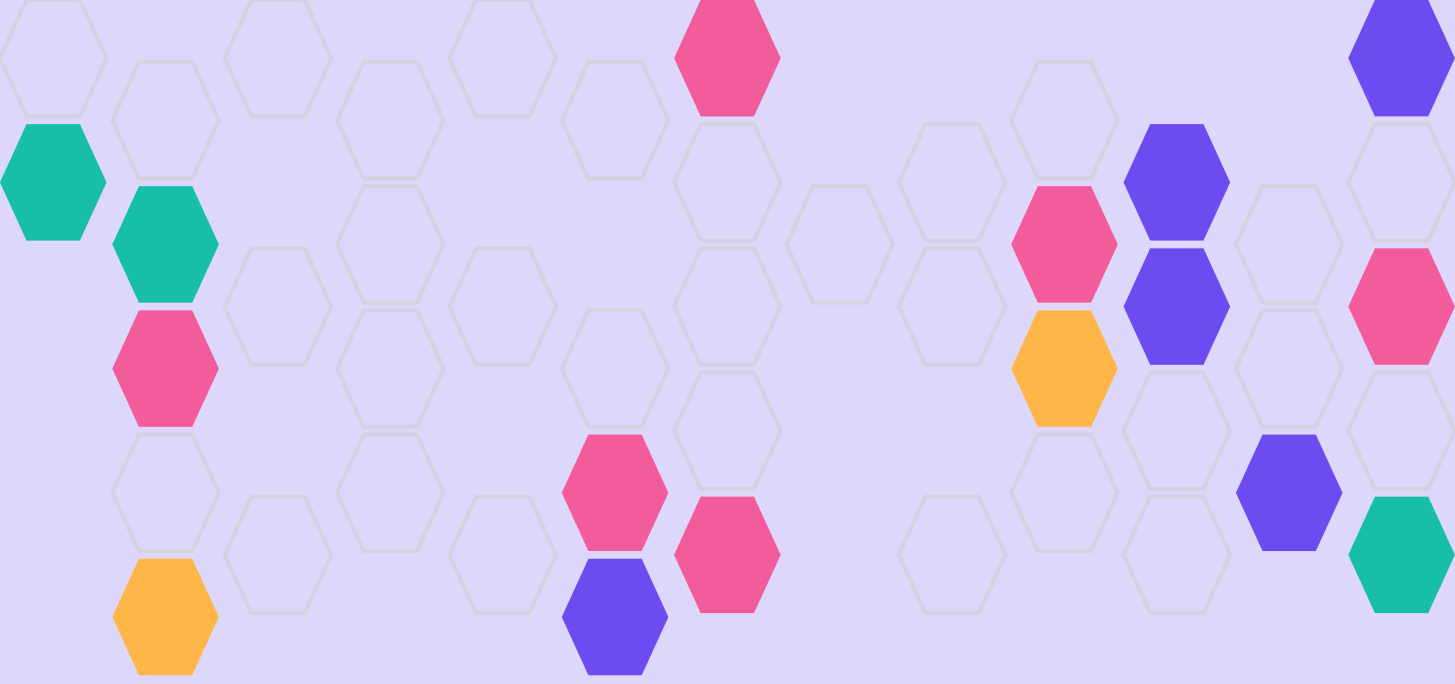




Magnetism

Poles, fields and everyday uses

Student Name · Physics · Class XI

Agenda

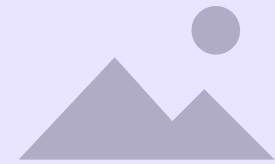
01 Introduction

02 Concepts

03 Experiment

04 Applications

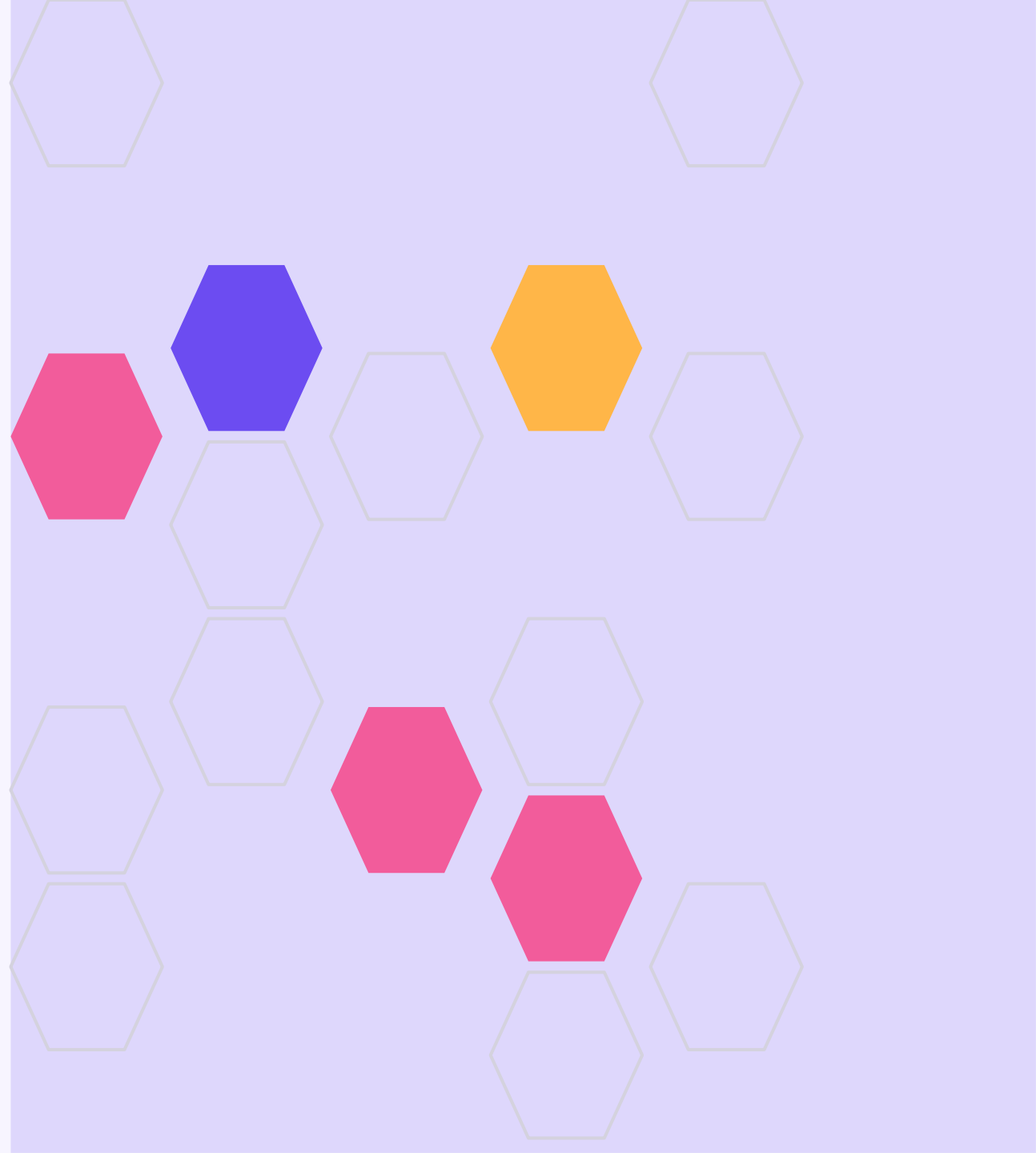
05 Summary



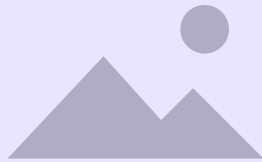
Image

01

INTRODUCTI ON



What is magnets?



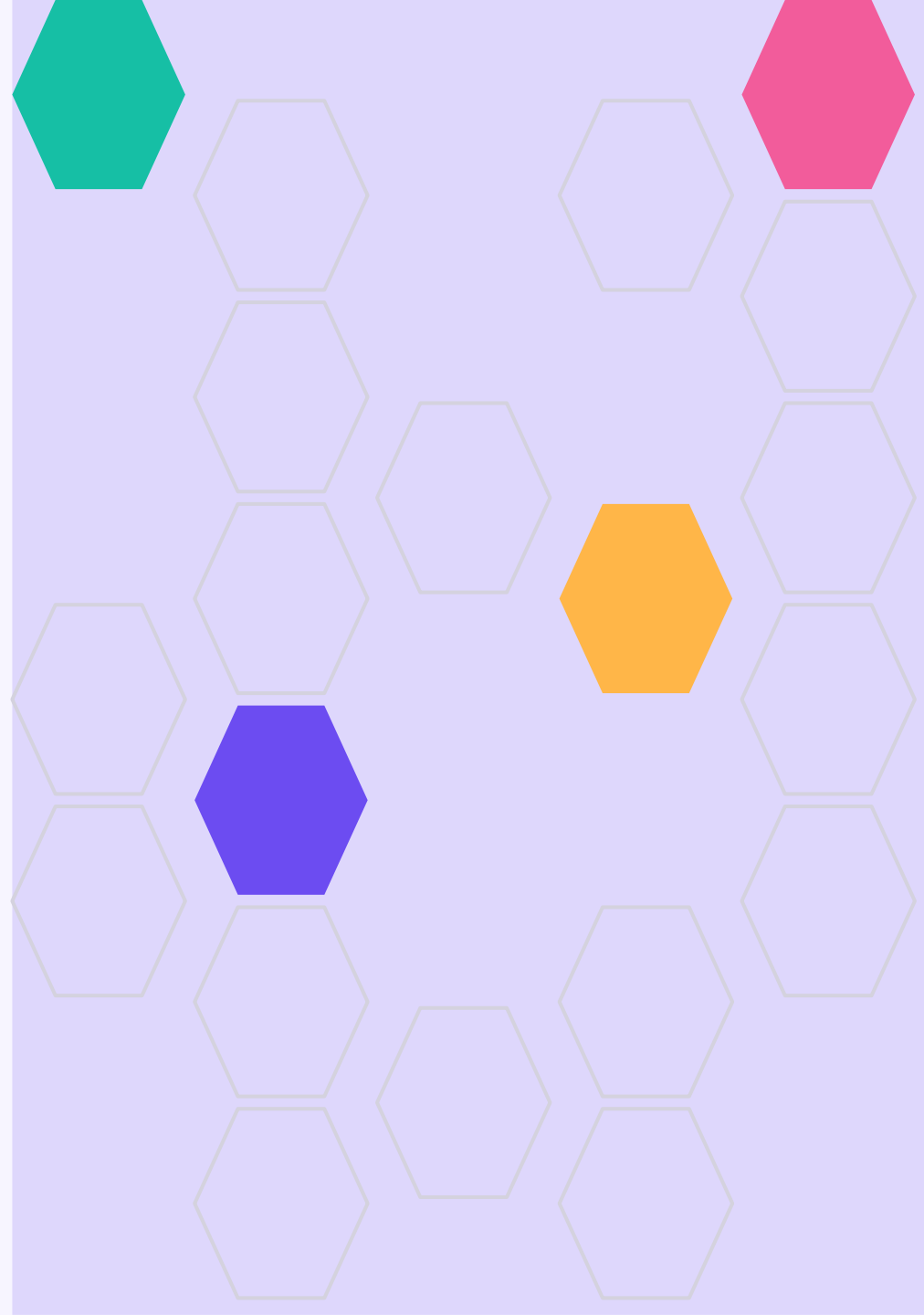
Diagram

Magnetism is the force by which magnets attract iron and attract or repel other magnets.

Every magnet has a north and a south pole. Like poles repel and unlike poles attract. The space around a magnet where its force acts is its magnetic field.

02

CONCEPTS



Key concepts

01

Poles

North and south ends of a magnet.

02

Magnetic field

Region where the force acts.

03

Electromagnet

A coil that becomes a magnet with current.

Making an electromagnet



Coil

Wrap wire round a nail



Connect

Attach to a cell



Test

Pick up pins



Switch off

Pins drop

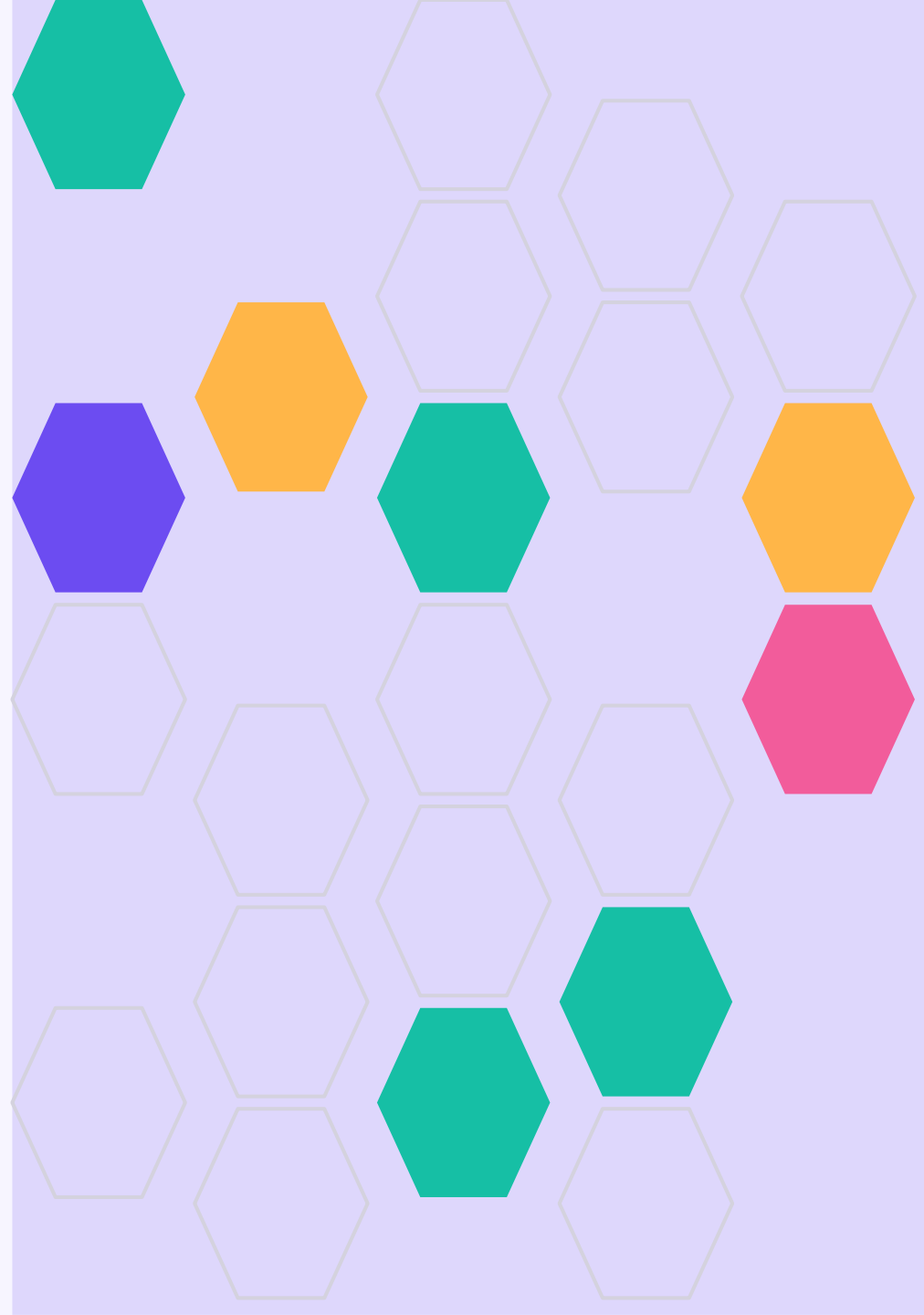
Magnetic or not?

Object	Material	Attracted?
Paper clip	Steel	Yes
Coin (most)	Alloy	Varies
Pencil	Wood	No

Reference values for illustration.

03

EXPERIMENT



Experiment

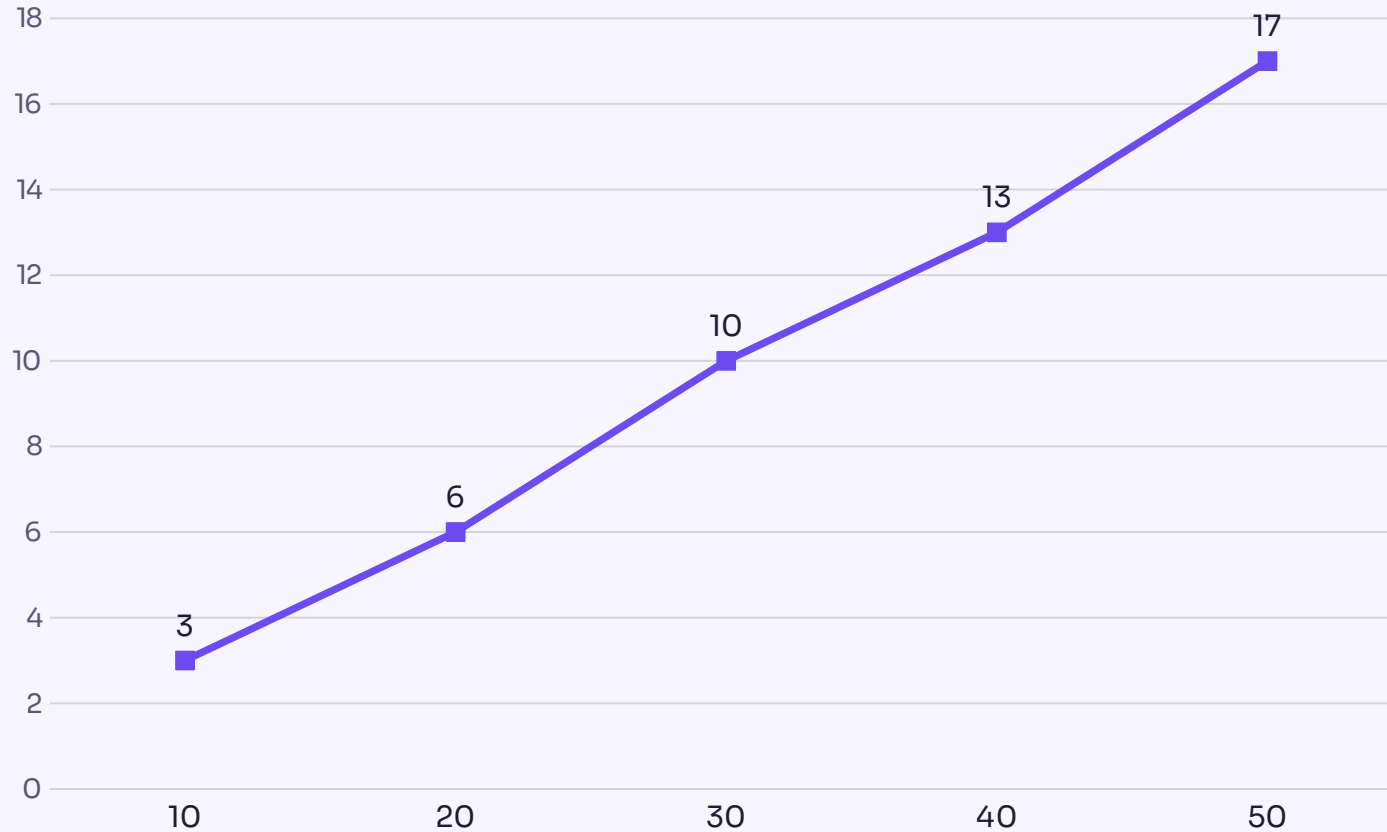
- Sprinkle iron filings on paper over a magnet
- Tap the paper gently
- Observe the field pattern
- Draw the field lines

SAFETY

**Keep magnets
away from phones
and cards.**

RESULTS

Pins lifted vs number of coils



Electromagnet strength
(sample data).

Sample data for illustration — replace with your own figures.

Real-world applications

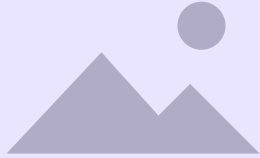


Image 1

Compass

Navigation



Image 2

Motors

Fans and vehicles



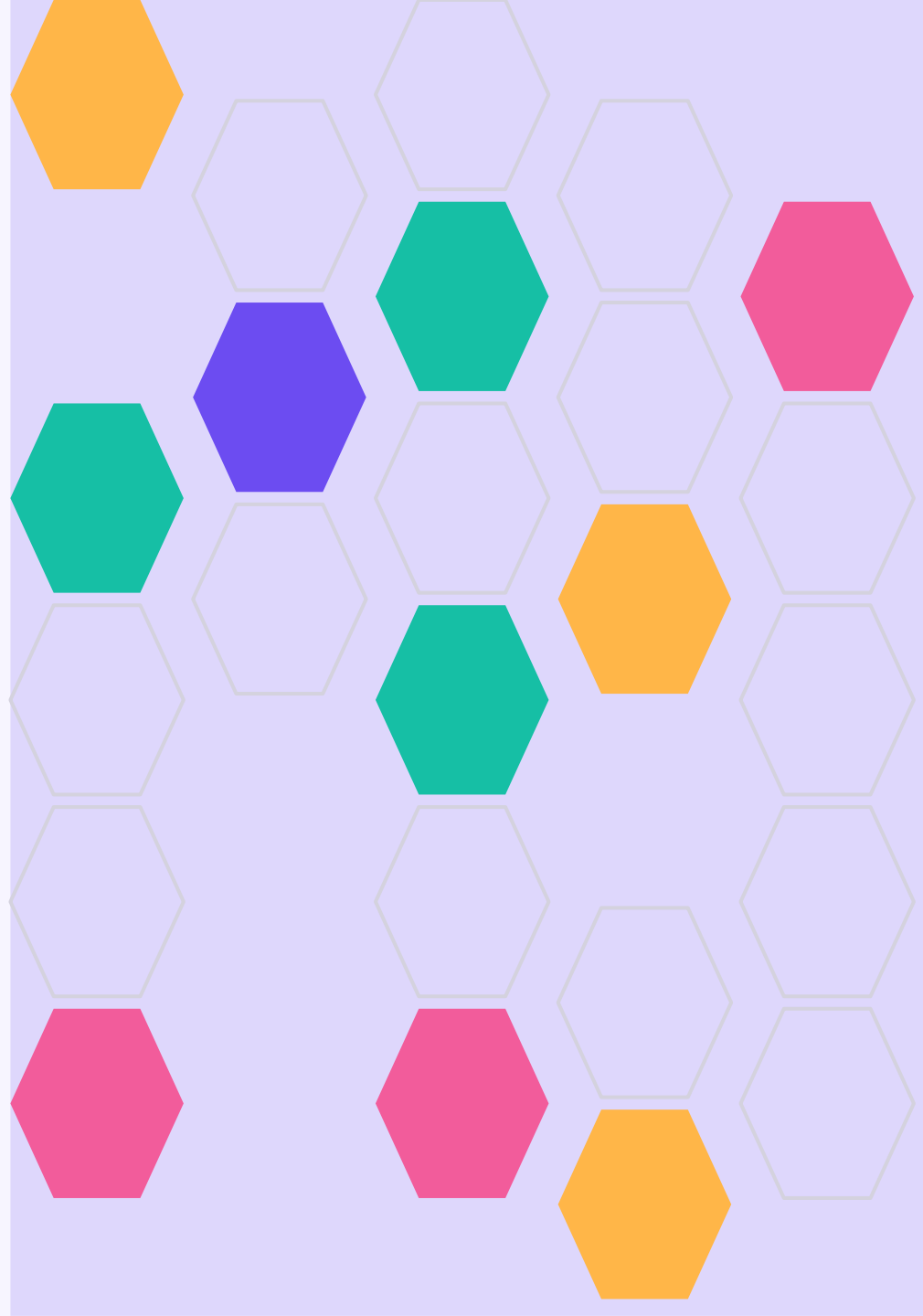
Image 3

Medical

MRI scanners

04

SUMMARY



Quick facts

2

poles in every magnet

Earth

behaves like a giant
magnet

Maglev

trains float on magnets

Summary

- Magnets have two poles
- Like poles repel, unlike attract
- Fields can be seen with iron filings
- Current can create magnetism



Thank you

Questions?

Student Name · Physics