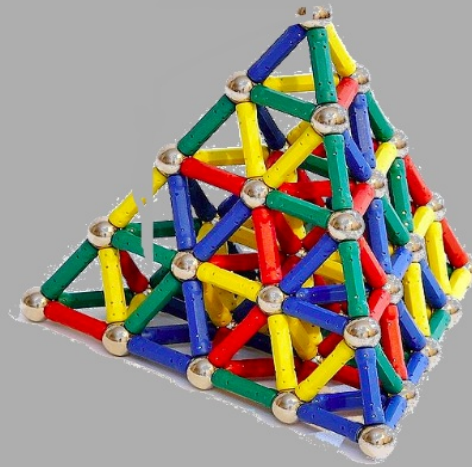


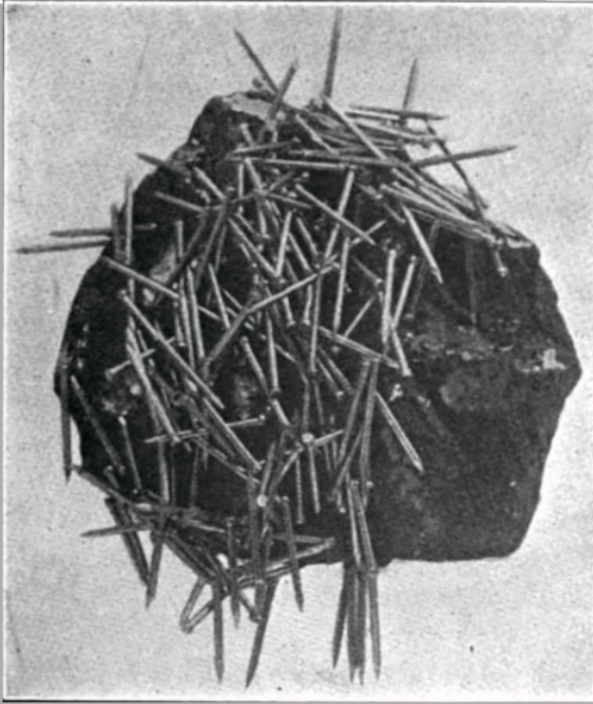
Properties of Magnets



What is a magnet, and what can it do?

Magnet: an object that attracts, or pulls on, certain materials, mainly iron and steel.





A magnet's property of attracting materials like iron or steel is called

Magnetism

Permanent Magnets:

- **Keep their magnetism for a long time**
- **Made in factories**
- **Uses: Computers, toys, refrigerator magnets**

Temporary Magnets:

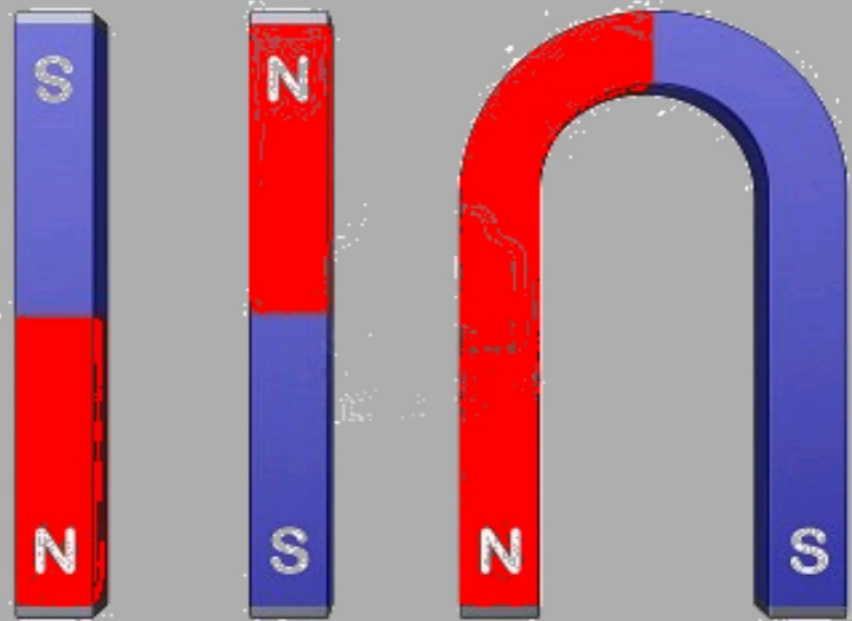
- **Do not keep their magnetism for a long time, or their magnetism can be turned off or on, like with an electromagnet.**



North and South Poles

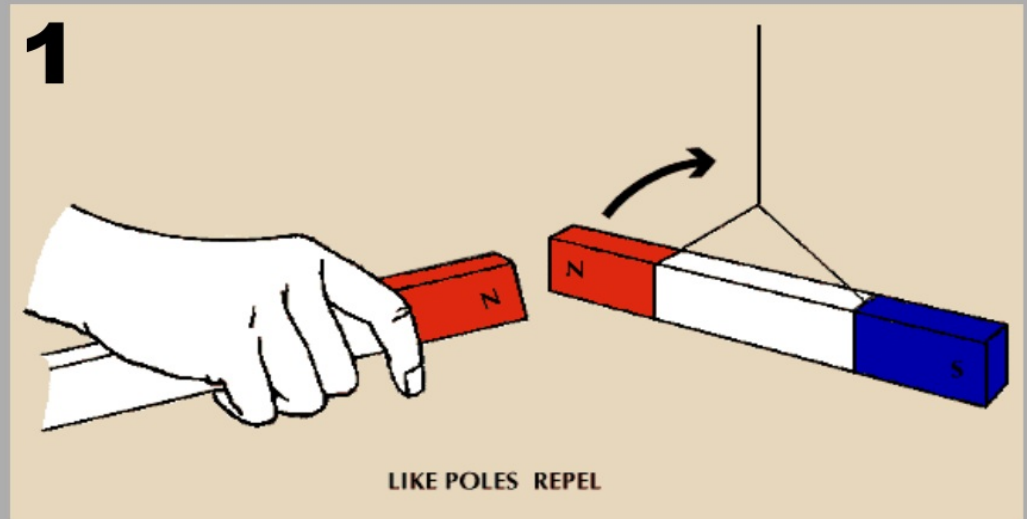
North Pole: the end of the magnet that will point north if allowed to hang freely.

South Pole: the end of the magnet that will point south if allowed to swing freely.

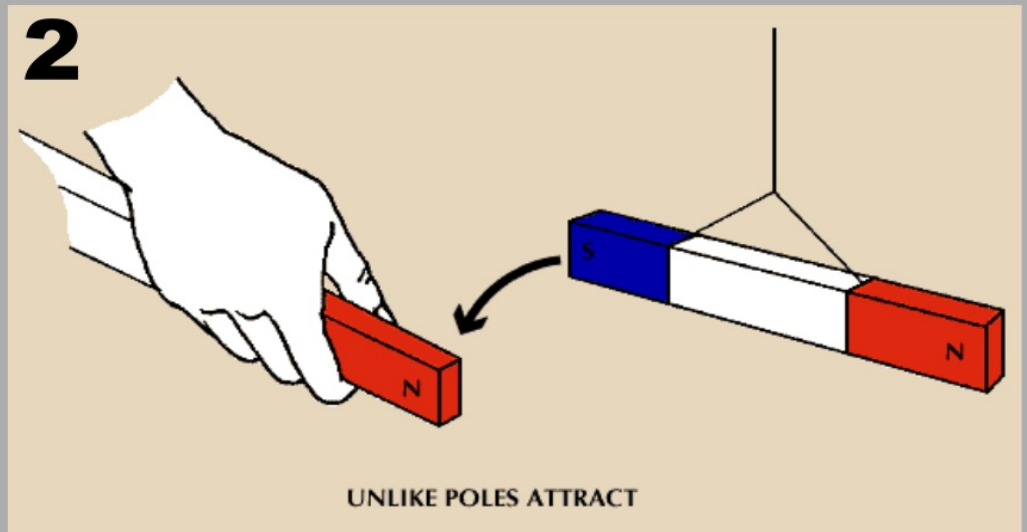


North and South Poles

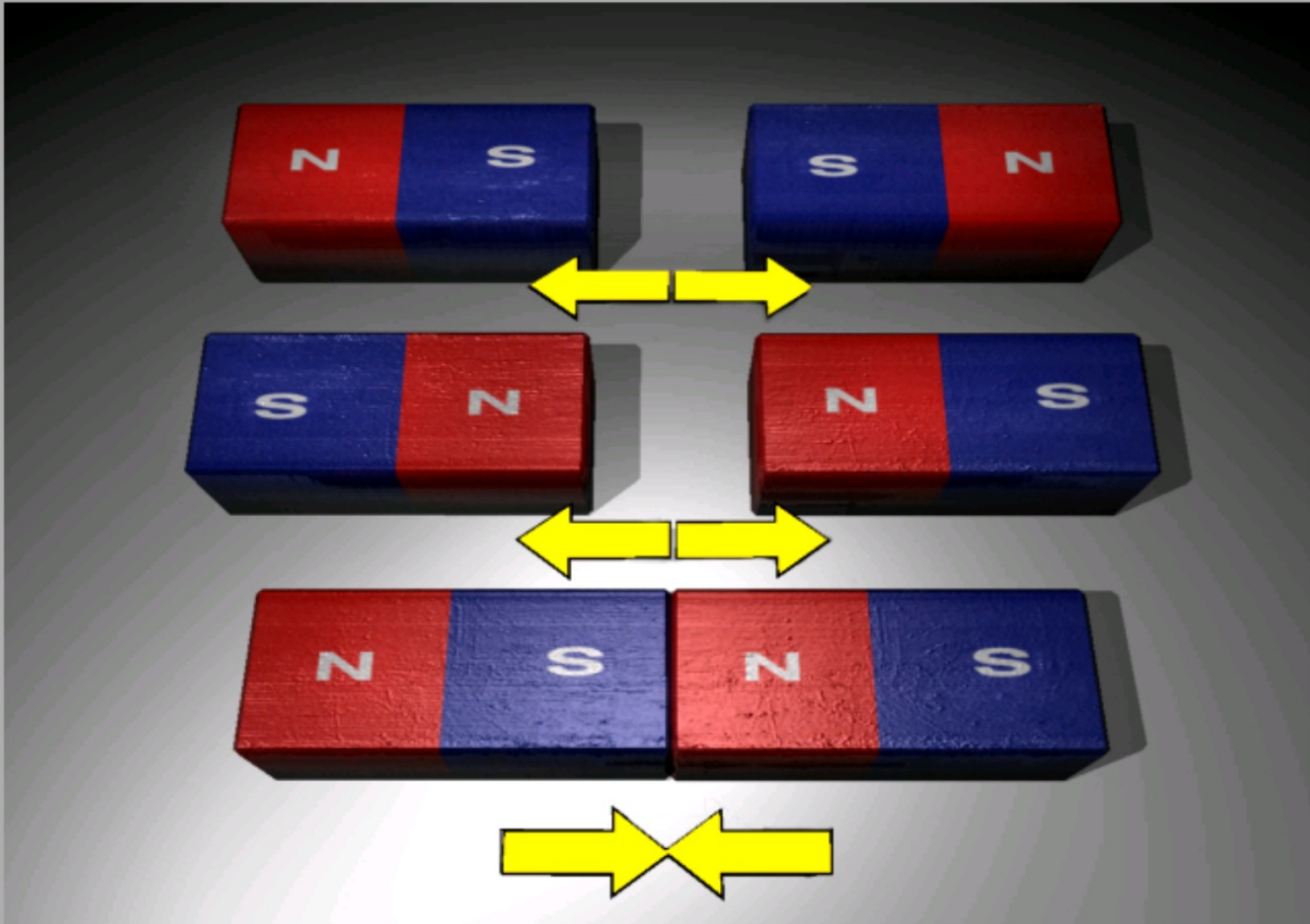
1. If you move the north pole of one magnet near the north pole of another, they move apart.



2. If you move the north pole of one magnet near the south pole of another, they move together.



Opposites Attract, Like Sides Repel



Maglev Trains: Magnetic Levitation



MLX01
World Record for Faster
Vehicle on Rails: 361 mph

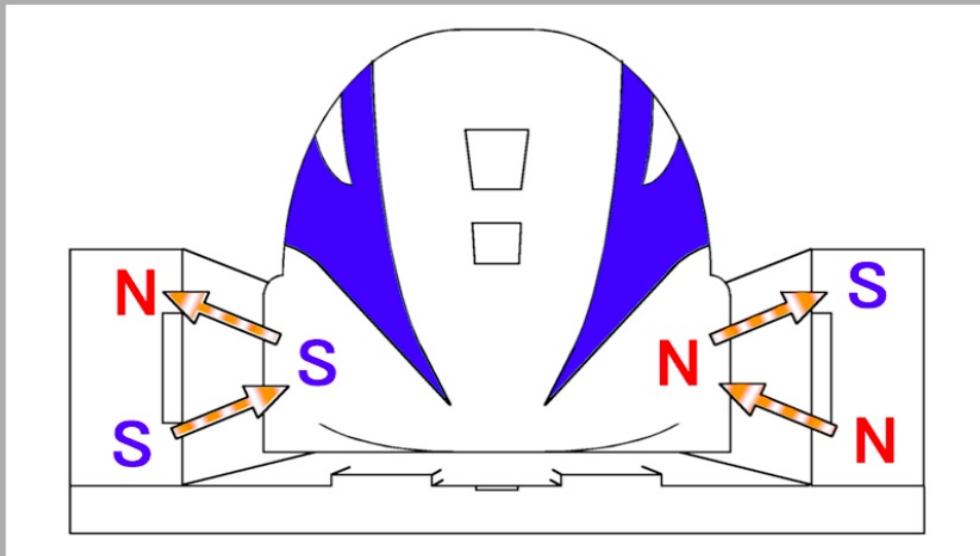


Diagram showing how the MLX01 levitates (left) and moves forward (below).

