

Section 8-1

The Nature of Magnetism



Magnetism

Touch a bar magnet to a paper clip.

What happens?

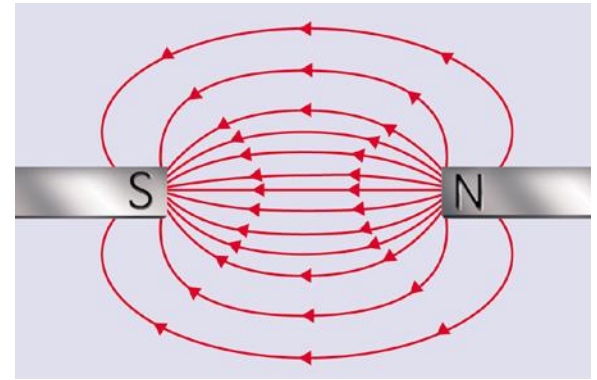
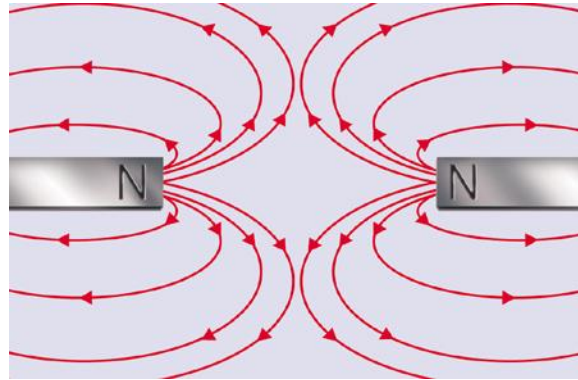
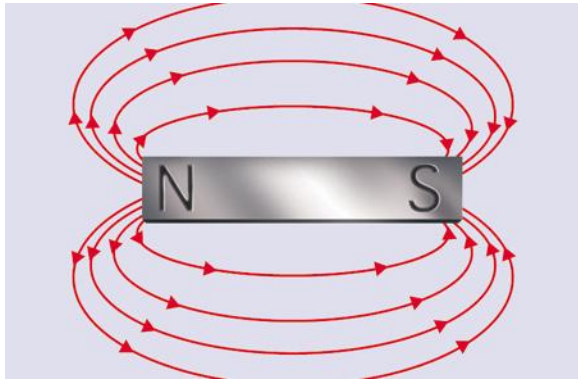
Place the paper clip on the far side of a desk. Slowly move the magnet toward the paper clip.

What happens?

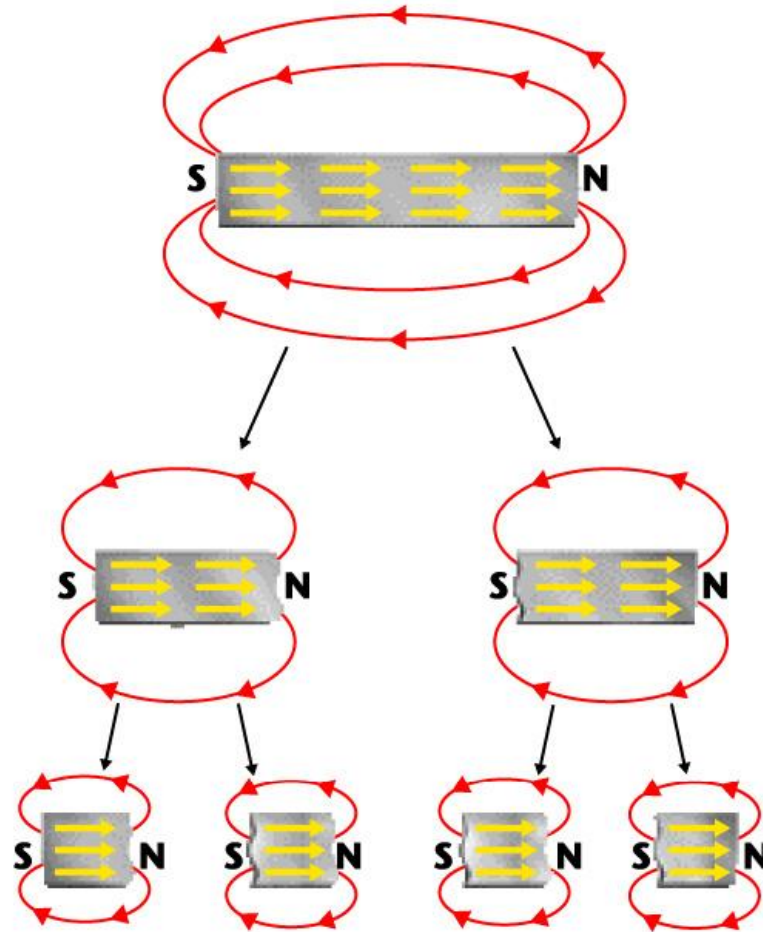
Use a ruler to measure the distance between the magnet and the point of attraction.

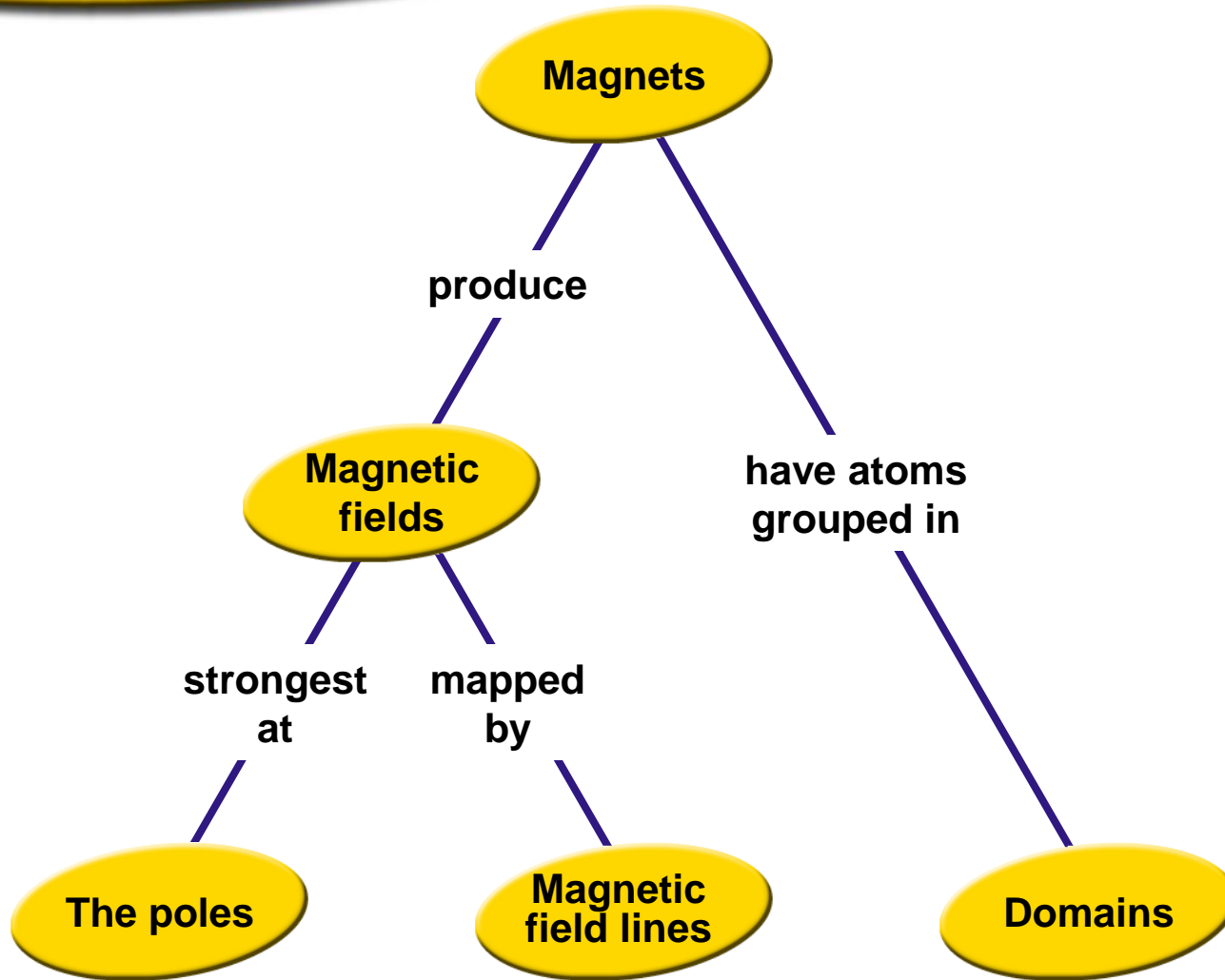


Magnetism



Magnetism





Section 8-2

Magnetic Earth



Magnetism

Magnetic Declination:

The angle between geographic north and magnetic north

Van Allen Belts:

Two doughnut-shaped regions between 1000 and 25,000 Km above the Earth's surface that contain high-speed particles

Solar Wind:

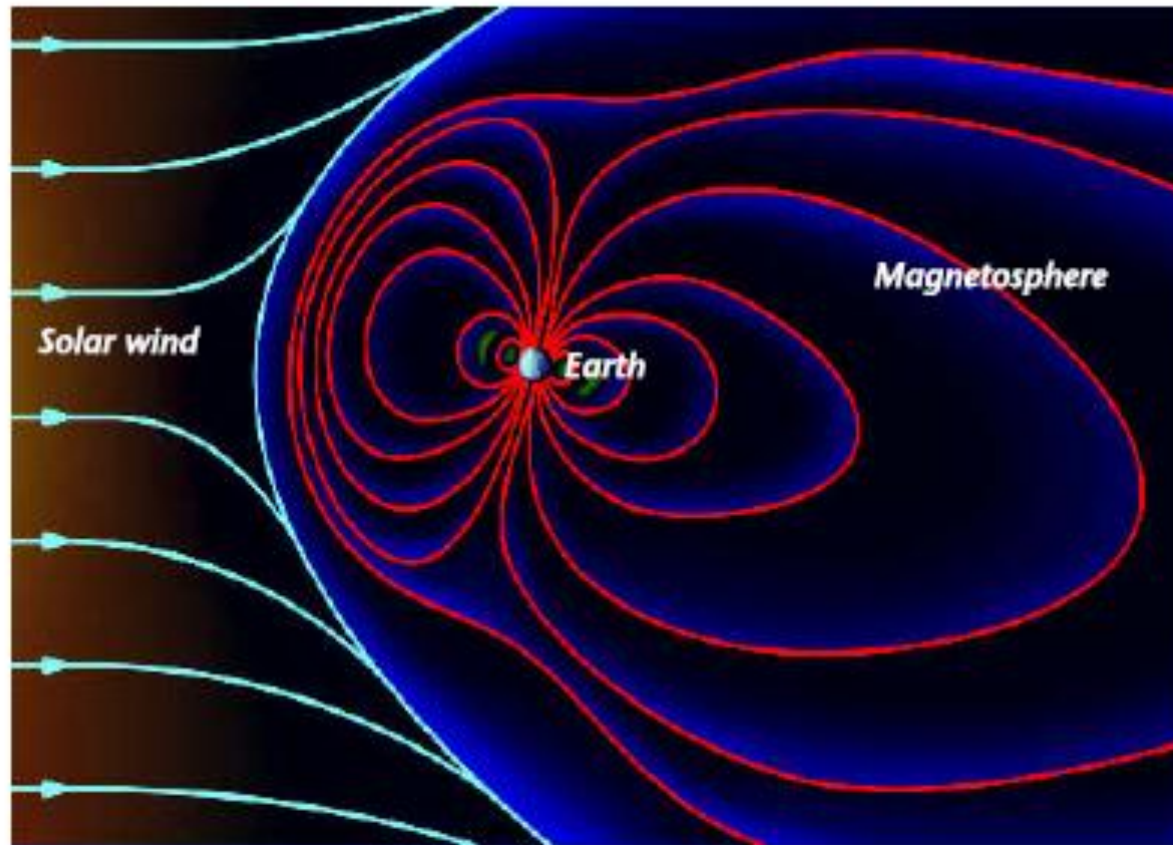
Electrically charged particles flowing at high speeds from the sun

How does solar wind effect the Earth's magnetic field?

They cause it to stretch out on the side of Earth experiencing night



The Magnetosphere



What is an aurora?

A glowing region caused by charged particles from the sun interacting with atoms in Earth's atmosphere

- **Northern Hemisphere: aurora borealis**
- **Southern Hemisphere: aurora australis**

