

Magnets

- A magnet will pull some metals towards itself.
- Metals that contain iron, nickel, and cobalt are magnetic. In other words, a magnet will pull or attract them.

We use magnets in many ways!

Which of the following items in a home use a magnet?

Blender	washer	dryer
Radio	can opener	dishwasher
Refrigerator	doorbell	compass

(select kitchen on the left of the screen)

[http://www.fossweb.com/modules3-6/
MagnetismandElectricity/index.html](http://www.fossweb.com/modules3-6/MagnetismandElectricity/index.html)

Uses of magnets

- Magnets were first put to use in navigation because they always point north and south.
- Magnets are used to hold, separate, control, convey and elevate products and to convert electrical energy into mechanical energy or convert mechanical energy into electrical energy.

Magnets around the House:

Headphones

Refrigerator magnets

Computer speakers

Telephone receivers

Phone ringers

Microwave tubes

Seal around refrigerator door

Plug-in battery eliminators

Floppy disk recording and reading head

Audio tape recording and playback head

Video tape recording and playback head

Credit card magnetic strip

TV deflection coil

Computer monitor

Computer hard drive

Shower curtain weights / attach to tub

Power supply transformers

Magnets inside of motors:

CD and DVD spinner and head positioner

Audio and VHS tape transport

VHS tape loader

Microwave stirring fans

Kitchen exhaust fans

Garbage disposal motor

Sump pump

Furnace blower and exhaust

Garage door opener

Bathroom exhaust fan

Electric toothbrush

Ceiling fan

Pager or cell phone vibrator

Clocks (not the wind-up type or LCD type)

Computers

Magnets in your Car:

Starter motor

A/C clutch

Interior fan motor

Electric door locks

Windshield wiper motor

Electric window motor

Side-view mirror adjuster motor

CD/tape player motor and playback

Engine speed sensors

Alternator

Starter relay

Windshield washer pump motor

Magnets have Poles

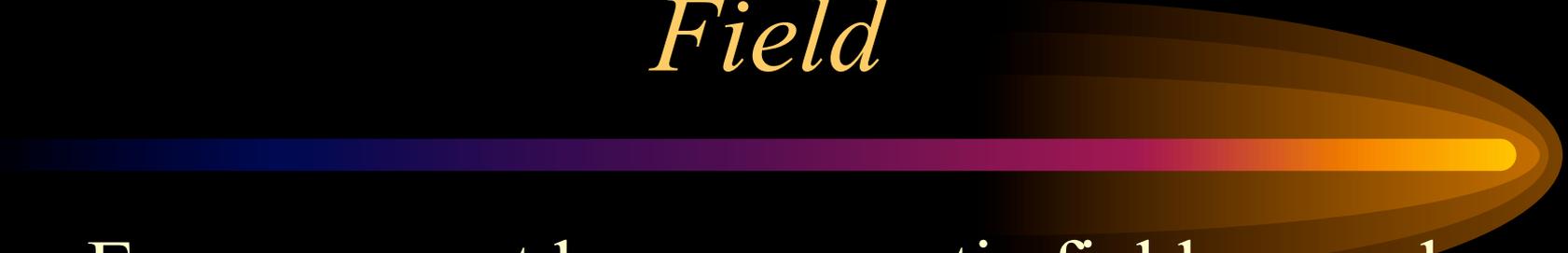
Just like the Earth has a North and South Pole, magnets also have two poles.

If you take a bar magnet and hang it from a string, the end that points north is the magnet's North Pole, and the end that hangs south is the South Pole.

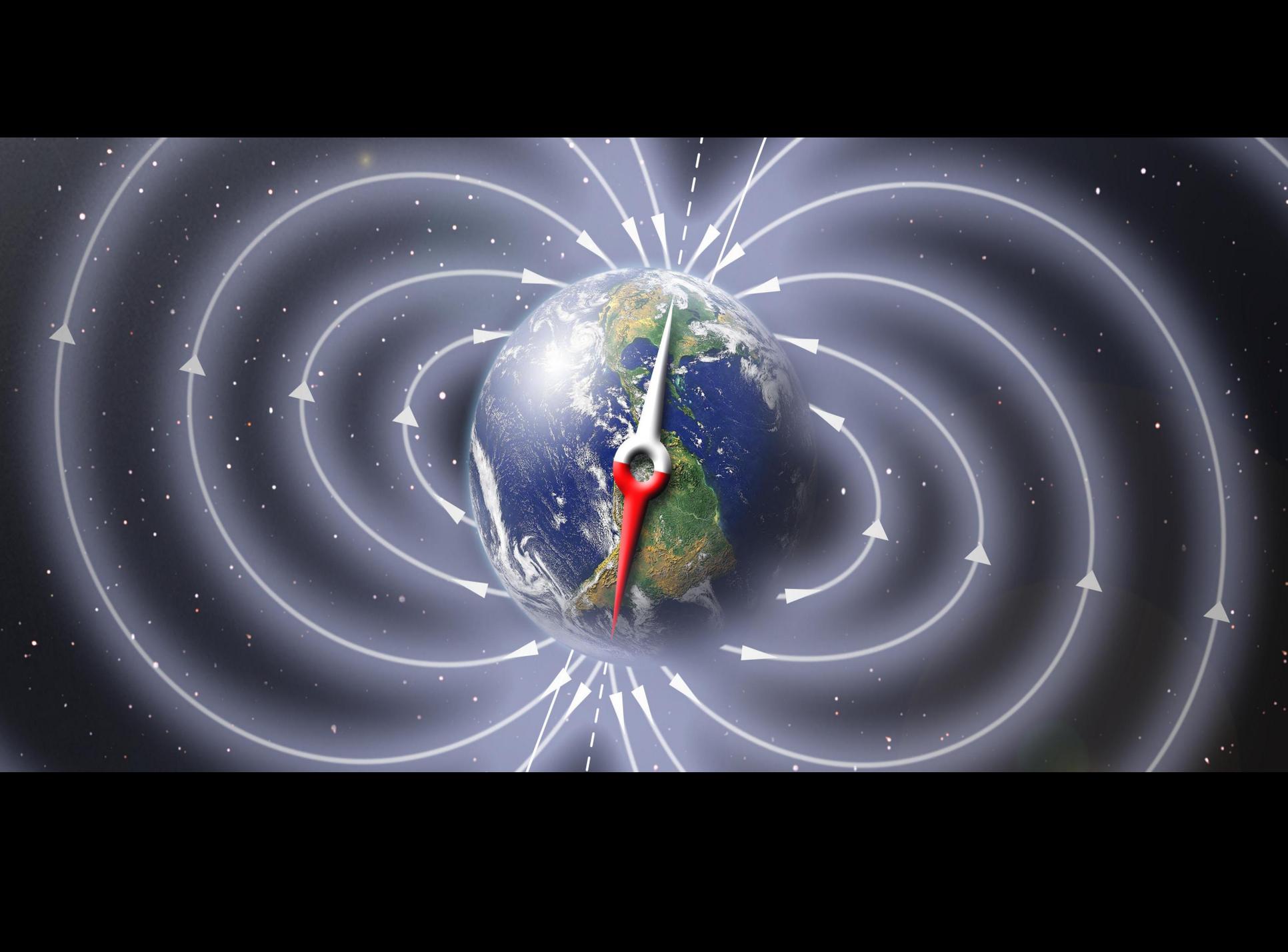
This is because the Earth is actually a HUGE magnet itself!

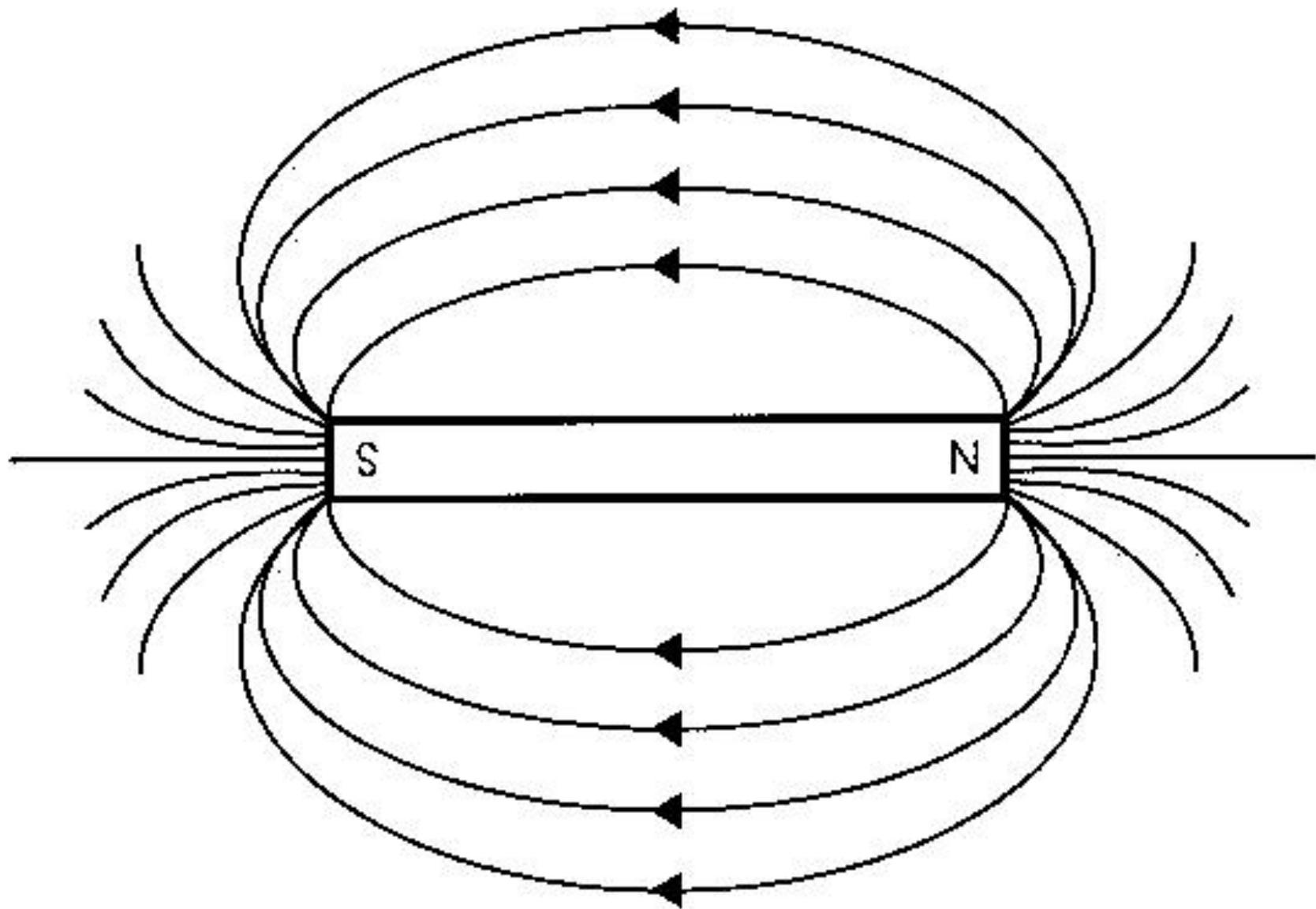
Similar magnetic poles repel, while opposite magnetic poles attract.

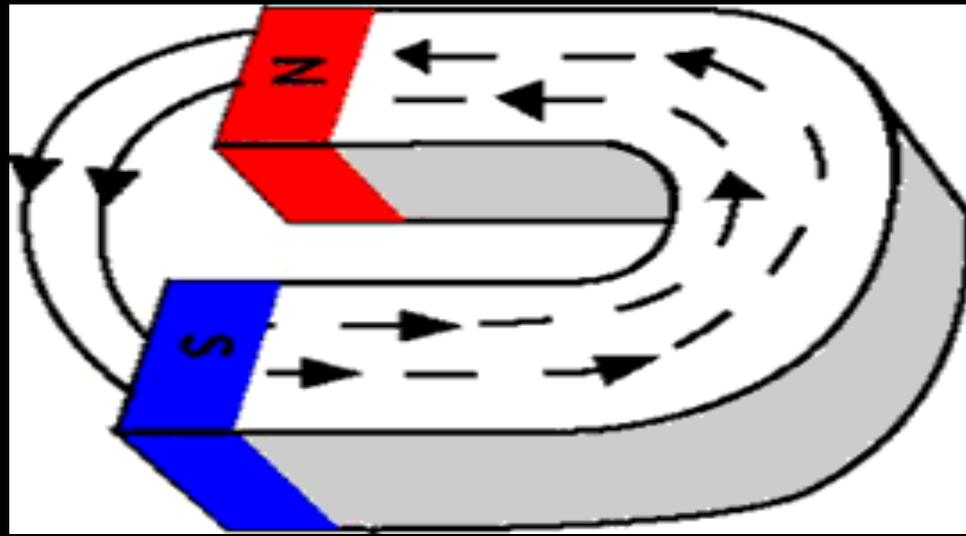
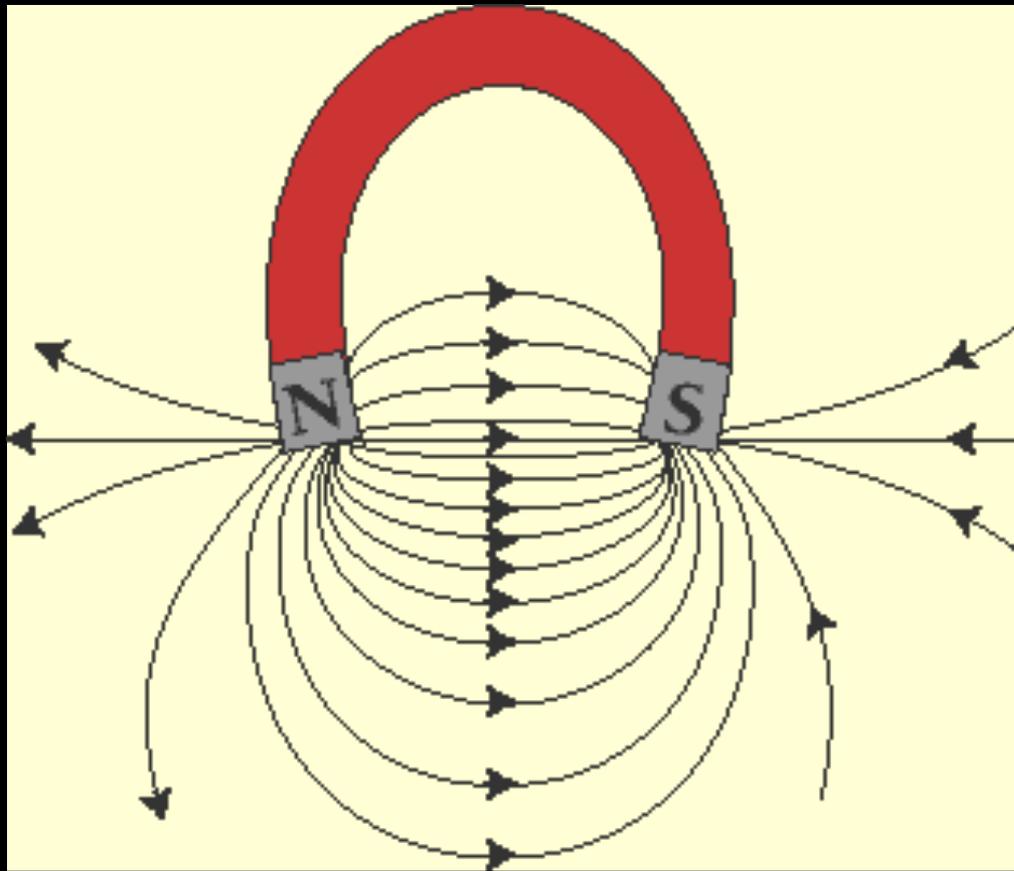
Magnets also have a Magnetic Field

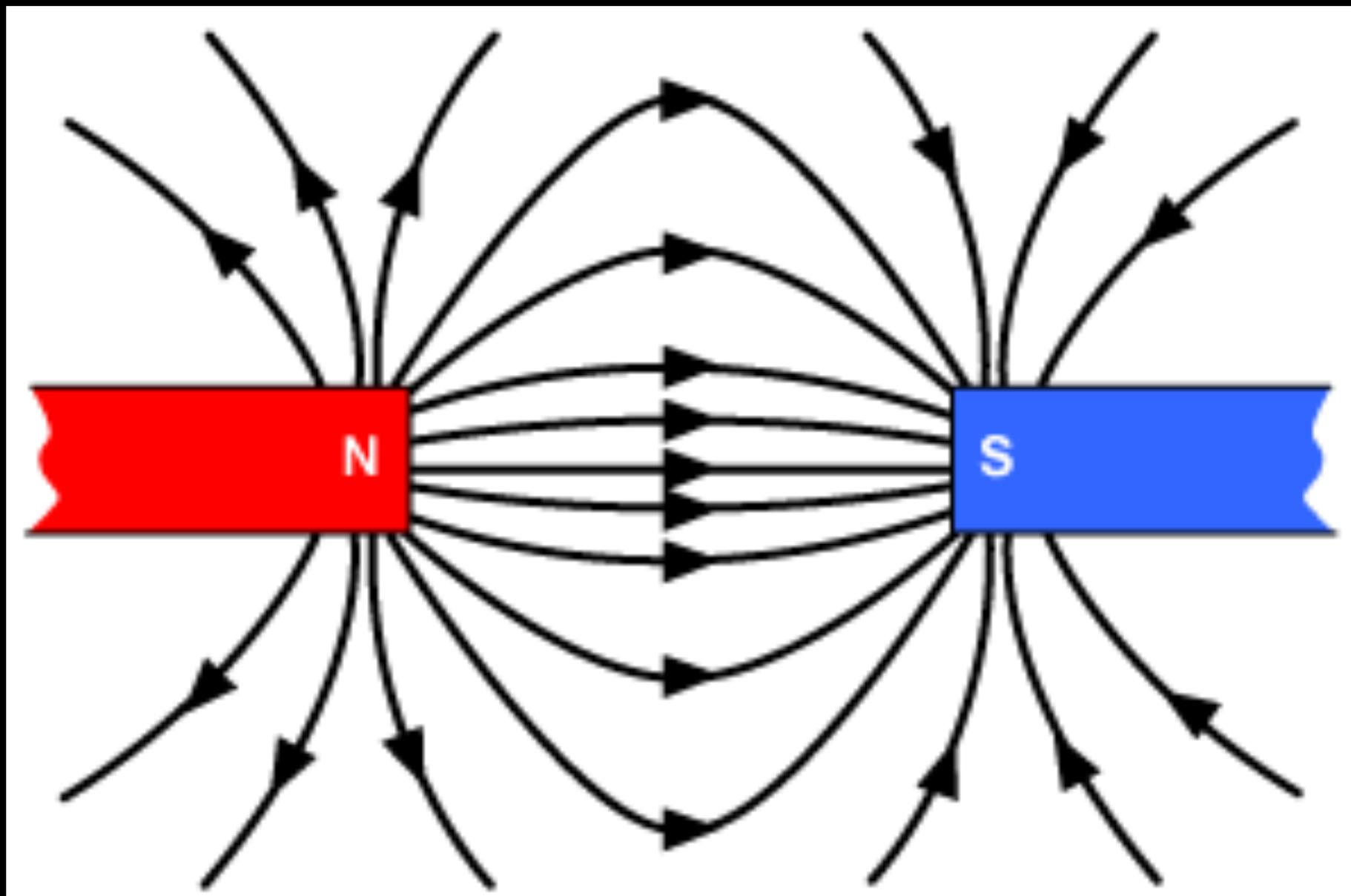


- Every magnet has a magnetic field around it. It can be thought of as a line of force running from the north end of the magnet to the south end of a magnet.
- Earth's magnetic field is what causes the needle of a compass to point north and south.









*The following links can help you
learn more about magnets:*

- http://www.bbc.co.uk/schools/revisewise/science/physical/12_fact.shtml click next after reading the facts to take a quiz!
- Complete this activity to explore magnetic fields
<http://www.galaxy.net/~k12/electric/fields.shtml>
- Ten facts about magnets:

[http://tm.wc.ask.com/r?
t=c&s=a&id=30780&sv=za5cb0dc7&uid=2d0b76
90bd0b7690b&sid=3d0b7690bd0b7690b&p=
%2flinks&o=0&u=http://www.execpc.com/
~rhoadley/magbasic.htm](http://tm.wc.ask.com/r?t=c&s=a&id=30780&sv=za5cb0dc7&uid=2d0b7690bd0b7690b&sid=3d0b7690bd0b7690b&p=%2flinks&o=0&u=http://www.execpc.com/~rhoadley/magbasic.htm)