# Unit 3 - Magnetism

A) Magnetism is a _____that exists between _____

_____always create _____

- **Natural Magnetism** comes from - spinning _____ in atoms
- Electric current - Where there is _____there is always_____

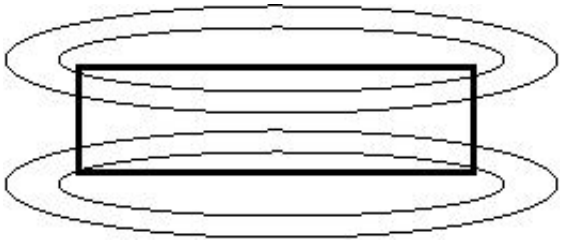
B) Magnetic Fields - regions in _____ where a magnetic _____ may be detected

We will focus on fields around:

1) current carrying _____

2) permanent and _____

***Example 1*) Magnetic _____around a Bar Magnet -** (Note: Actual Magnetic Fields contain many more lines of magnetism)



1. **Magnetic flux lines** - _____in a magnetic field.

A magnetic field is not _____.

Between each line of magnetism their exist _____

a) The _____of a _____line up perfectly with the flux lines

b) The _____on a flux line show where the _____Pole of a compass would point in that field.

**REMEMBER THIS:** Flux arrows point _____and back over again to North

c) Magnetic force strongest at the _____where flux lines are _____

d) Measuring the strength of a magnetic field

**QUESTION:** How do you measure the **strength of a magnetic field**?

**ANSWER:** Put a _____ with a known current into the field and measure the _____

_____ on the _____