

PHYSICS - X-PART-4 CLASS 12



VIDEO

Solenoid

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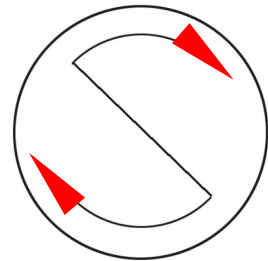
Magnetic Effect of Electric Current



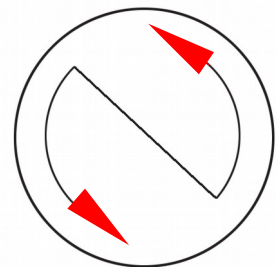
- ◆ A solenoid is an insulated wire wound in the shape of a helix.

How we can recognise the direction of magnetic field and the polarity of a current carrying solenoid.

- ◆ The end of the solenoid at which current flows in the clockwise direction will be the South Pole.



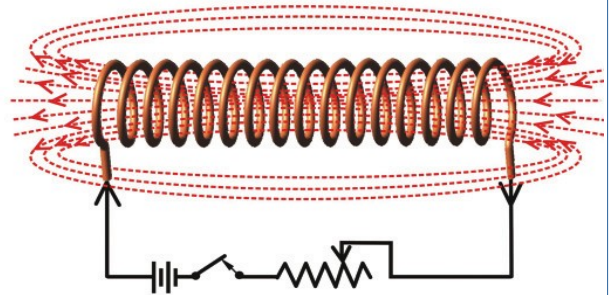
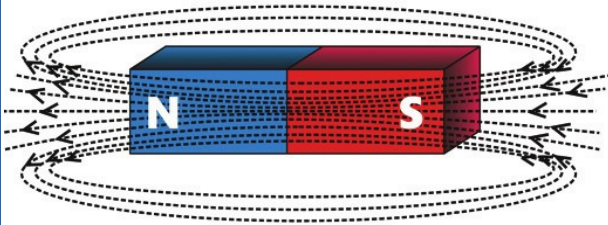
- ◆ The end of the solenoid at which current flows in the anticlockwise direction will be the North Pole.



The factors affecting the strength of the magnetic field of a solenoid carrying current.

- ◆ Intensity of electric current.
- ◆ The number of turns of the solenoid.
- ◆ The area of cross section of the solenoid.
- ◆ The area of cross section of the soft iron core.

Analyse and compare solenoid and bar magnet



worksheet

Bar Magnet	Solenoid
* The magnetism is permanent	* The magnetism is temporary
* Permanent magnet	* Electromagnet
* Weak magnetic field	* Strong magnetic field
* Strength cannot be changed	* Strength can be changed
* Polarity is fixed	* Polarity can be reversed