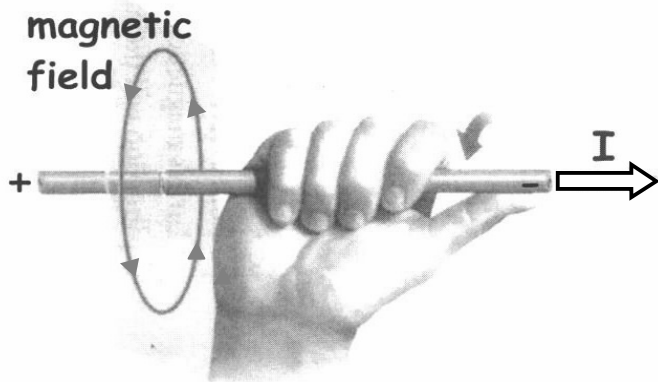


## Note-Taking Guide - Episode 1003

An electric charge at rest →

Oersted discovered that -

*Go to the lab now.*



Right-hand rule #1:

If straight wire is grasped with right hand, with thumb pointing in direction of \_\_\_\_\_, fingers will curl in direction of \_\_\_\_\_.

*Go to the lab report and use this rule to check #2 (pt A).*

For a vertical conductor,  $\odot$  means the current flows upward or out of the page.

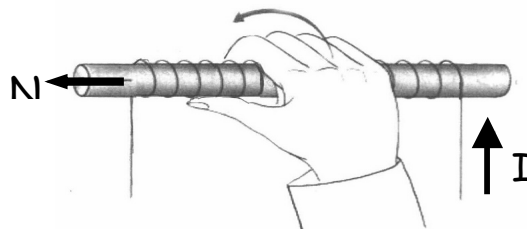
$\otimes$  means the current flows downward or into the page.

*Go to the lab now. Try to predict the results for Part B.*

Solenoid -

Right-hand rule #2:

When a solenoid is grasped with the right hand, so that the fingers curl in the direction of the \_\_\_\_\_, the outstretched thumb will point toward the \_\_\_\_\_ pole of the magnetic field.



Electromagnet -

To make an electromagnet stronger, increase the number of \_\_\_\_\_ in the solenoid and increase the amount of \_\_\_\_\_ flowing through the wire.

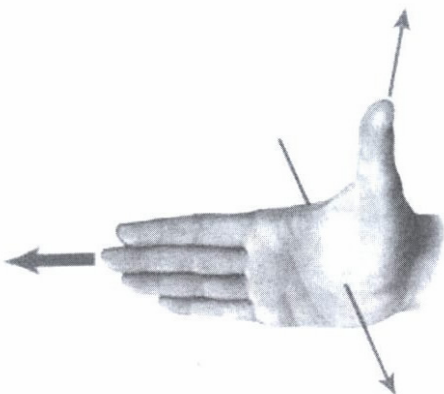
## Note-Taking Guide - Episode 1003

### Electromagnetic Induction -

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### Factors Affecting Magnitude of Induced Current:

- 1.
- 2.
- 3.



### Right-hand rule #3:

When the fingers point in the direction of the \_\_\_\_\_, and the thumb points in direction of the \_\_\_\_\_ of the wire, the palm pushes in the direction of the induced \_\_\_\_\_.

### Electric Generator-

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### Lenz's Law -

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### Electric Motor -

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