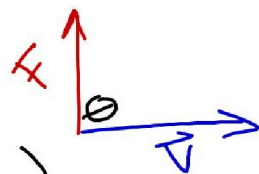
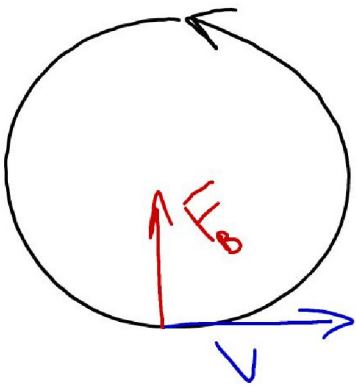


- ① for v to change KE has to change
- ② for KE to change work has to be done

- ③ $W = \Delta E = Fd \cos \theta$
 $= 0 \quad (\cos 90 = 0)$



- ④ ~~B~~ B fields do NO work on charged moving particles.



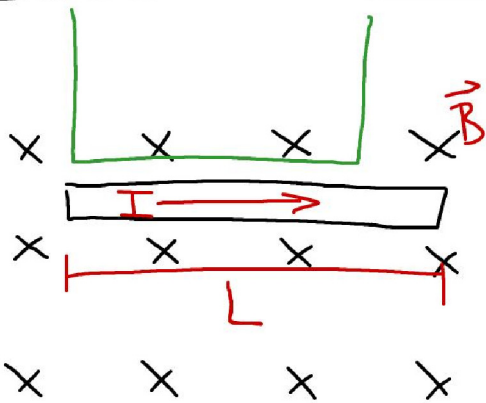
$$\Sigma F = ma$$

$$F_B = m\left(\frac{v^2}{r}\right)$$

$$q\vec{v}\vec{B} = \frac{mv^2}{r}$$



Force on a current carrying wire in a \vec{B} field



Force is Up b/c
of RHR1

$$F = qvB = q\left(\frac{d}{dt}\right)B$$

$$I(d)B$$

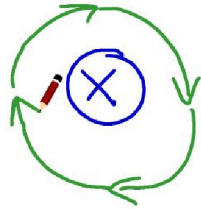
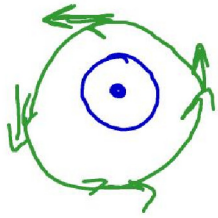
$$F = ILB$$



RHR 2

A current carrying wire causes a circular \vec{B} field.

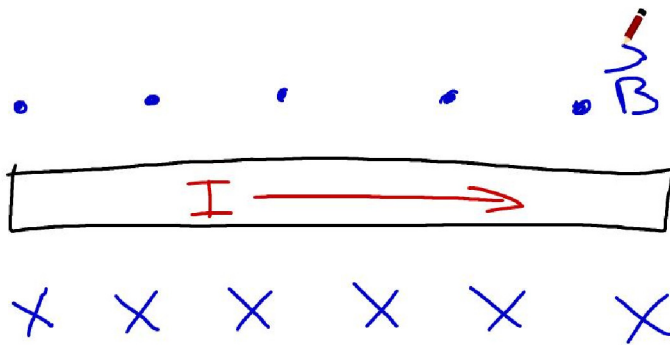
RHR 2 - tells you how to find direction.



Thumb = direction of current

Fingers: direction of field

LESSON | BACKGROUNDS



LESSON | BACKGROUNDS

B field due to current carrying wire

$$|B| = \frac{\mu_0 I}{2\pi r}$$

$$\mu_0 = 4\pi \times 10^{-7} \frac{T \cdot m}{A}$$



LESSON BACKGROUNDS



NEW LESSON 2 OPEN LESSON 3 LESSON 4 BACKGROUNDS 6 SAVE 8 SAVE AS 9 EDIT

A horizontal navigation bar at the bottom of the page. It contains several thumbnails representing different lessons or slides, numbered 2 through 9. Below the thumbnails are buttons for 'NEW LESSON', 'OPEN LESSON', 'LESSON', 'BACKGROUNDS', 'SAVE', 'SAVE AS', and 'EDIT'. A green arrow points to the 'LESSON' button.