

Review: Induction

- Faraday's Law

- Magnitude of induced EMF given by:

$$\varepsilon = -\frac{\Delta\Phi}{\Delta t} = -\frac{\Phi_f - \Phi_i}{t_f - t_i}$$

- Lenz's Law

- If magnetic flux (Φ) through loop changes, an EMF is created in the loop to oppose the change in flux

- EMF \longrightarrow current ($V=IR$) \longrightarrow induced B-field.

- Flux decreasing \Rightarrow B-field in same direction as original
- Flux increasing \Rightarrow B-field in opposite direction of original