

Ch 6 HW:RC Notes Sec 6.2, Reinf Wks Sec 6.2  
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obj: When and how does a voltage difference produce an electric current?

### Electric Current (I)

- An electric current is a flow of electric charges from a high concentration to a low concentration.
  - \* The charges are almost always electrons.
  - \* The measure of the current is in units called amperes. (A)
  - \* The energy that is needed to operate a device is delivered by the current.

### Needed for an electric Current

- There are three parts.
  - 1) Electric circuit.
    - \* A closed path of a conductor
    - \* A clear path from high concentration to low concentration.
    - \* A closed circuit means current will flow. (on)
    - \* An open circuit is off!

## 2) Source

- Something that will have a high concentration of charges.
- A high concentration of charges is called a Voltage difference.
- Types of Sources

## 1) Cells

- \* Voltaic Cell

- \* Change chemical energy into electrical energy.

- \* 2 types of Cells

- A) Dry cell

- B) Wet Cell

- A battery is a combination of two or more cells.
- Each cell has a constant Voltage difference.

## 2) Generator

- \* Produce electrical energy from a process called electromagnetic induction.

- Voltage Difference pushes the current through a closed circuit.

### 3) Load

- Something that will cause an energy transformation.

- Loads provide a resistance to the current.

\* This results in an area of high concentration and an area of low concentration.

- Diagram of an electric circuit.

