

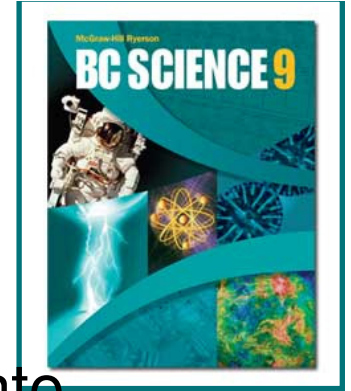
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- **for students to copy in their own hand-writing**
  - **in order to complete their class notes**
  - **if student did not have enough time in class**
  - **if student was away and missed this section**
- **for assistants and tutors to follow progress of the concepts taught**

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# 8.1 Electric Potential Energy and Voltage



- Electrochemical cells convert chemical energy into electrical energy. Connecting cells together forms batteries.
- The ends of batteries are terminals – terminals allow electrons to flow from the battery through a device that converts electric energy into different forms.

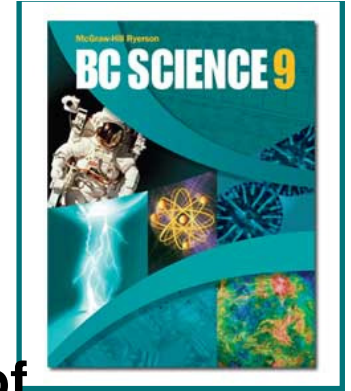
## Electric Potential Energy

- Electric energy can do work. Electric energy that is stored is potential energy; when it is moving it is kinetic energy.



See pages 270 - 271

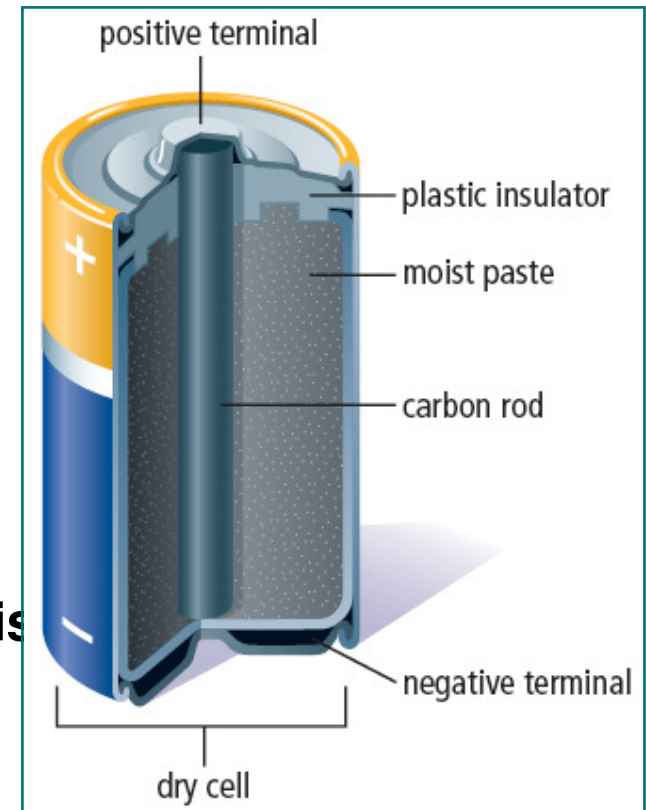
# Electric Potential Difference



- The amount of electric potential energy per coulomb of charge is called the potential difference or voltage. This can be measured with a voltmeter.
- Extra electrons will move to a location where there is less of them

## Producing Voltage

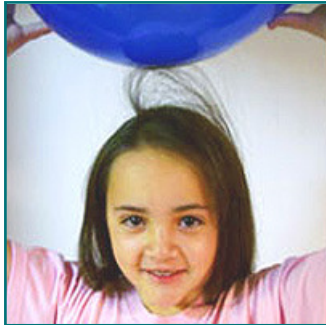
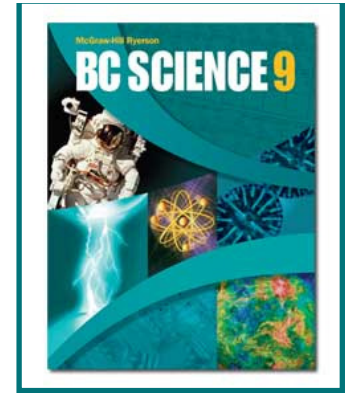
- Electrodes in an electrolyte chemically react to produce electrons and relatively difference charges on each electrode. This creates a potential difference.



See pages 272 - 273

# Source of Electricity

What sources of electrical energy do these pictures represent?



[Take the Section 8.1 Quiz](#)

See page 274