Fleet U 9/12/01 - dynamics -> circuits, current, voltage, resistance

Begin by finishing up Jim N's discussion of electrostatic force and fields
analogy of mountain and relief map

Discussion of moving charges. If charges are in a conductor, what happens?

battery bulb and single wire. Connect so it lights. (Worksheet part 1)

what are critical elements of this electric circuit?

Discuss this in terms of model of electrons. What are important elements in this?
designed to arrive at:
II. A / IIB in worksheet
current, resistance, voltage?

How do these relate?
to arrive at ->
V= IR

series and parallel (current splits / adds): water analogy for batteries; turnstiles/chairs for resistors.

worksheet: III A/ B

Discussion of Alternating Current:
still transmit energy/ power, but instead of DC we use AC b/c:
- transformers (allow cheap transmission -> high power... little current)
- naturally start w/AC
- easy to go from AC-> DC but not visa versa