

# Electric Circuits and Current: Objectives and Vocabulary

By referring to the various handouts, notes, lab activities and homework covered during this unit, then at the end of this unit of study, each student should be able to:

1. Explain what an electric circuit consists of, and describe what open, closed, series, and parallel circuits are.
2. Know the symbols used in electric circuits.
3. Describe how electric circuits are protected, and know the benefits and drawbacks of fuses and circuit breakers. Also know the two types of circuit breakers.
4. Define potential difference, electrical current and resistance. Also know the units of measurement for each, and the instruments they are measured with.
5. Compare and contrast the types of electric current, alternating (AC) and direct (DC). Also know examples of devices that use each type.
6. Know how Ohms Law is used to show the relationship between potential difference, current, and resistance using  $V=IR$ , and calculate one if given data for the other two.
7. Know what the function of a battery is, and the two most common types of batteries in use today.
8. Explain what electrical corrosion is, its causes, and how to prevent or reduce it.
9. Explain the difference between electrical power and electrical energy, and how to calculate them when given the formula.

## Vocabulary:

electric circuit	circuit breaker	alternating current
open circuit	potential difference	direct current
closed circuit	electrical current	Ohms Law
series circuit	electrical resistance	battery
parallel circuit	voltmeter	wet cell
circuit symbols	ammeter	dry cell
fuse	ohmmeter	corrosion
electrolyte	electrical power	electrical energy