AMPERES – CURRENT ELECTRICITY

Electric current is the _____.

Measures how many _____ pass a point in a conductor in 1 second.

The _____ the current, the _____ the electrons move.

Current is measured in _____ (amps) or milliamps by a device called an _____.

1 ampere = 1 coulomb of charge per second

coulomb = 6.24 x 10^{18} electrons (named after Charles Coulomb)

* 1 Amp (A) = 1000 milliamps (mA)

ELECTRIC CURRENT

- Originally people thought that electricity was caused by the flow of fluid from the "+" to the "-" terminals. This direction is called _____.

- We now know that electricity is caused by the flow of electrons from the "-" to the "+" terminals. This direction is called _____.

- **Direct current (DC) –** current flows in _____ie. from a cell

Alternating current (AC) – electrons _____ direction. ie. through an electric outlet

In North American the current reverses directions 60 times a second (60 Hertz, with 120 V)

- China – 220 V, 50 Hz
- United Kingdom -230, 50 Hz
- Taiwan - 110 V, 60Hz

CONDUCTIVITY:

Electric Current also requires **CONDUCTANCE =**

_____

The _____ depends on how _____ electrons can flow through a material.

(a) CONDUCTORS

(b) INSULATORS

SCHEMATIC DIAGRAMS:

OBJECT	SYMBOL	NOTES
Ammeter		