

Name _____

Date _____

Period ____

Engineering Technology Department

What is a resistor?

A resistor is an electrical component that limits or regulates the flow of electrical _____ in an electronic circuit. Resistors can also be used to provide a specific _____ for an active device such as a _____.

All other factors being equal, in a direct-current (DC) circuit, the current through a resistor is inversely proportional to its _____, and directly proportional to the voltage across it. This is the well-known _____. In alternating-current (_____) circuits, this rule also applies as long as the resistor does not contain inductance or capacitance.

Resistors can be fabricated in a variety of ways. The most common type in electronic devices and systems is the _____. Fine granulated carbon (graphite) is mixed with clay and hardened. The resistance depends on the proportion of carbon to clay; the higher this ratio, the lower the resistance.