

Name _____

Date _____

Engineering Technology Department

Period _____

Capacitors

_____ are widely used as parts of electrical circuits in many common electrical devices. Unlike a resistor, an ideal capacitor does not _____. Instead, a **capacitor** _____ in the form of an electrostatic field between its plates.

The most common kinds of capacitors are:

- _____ capacitors have a ceramic dielectric.
- _____ capacitors are named for their dielectrics.
- Aluminum, tantalum and niobium electrolytic capacitors are named after the material used as the anode and the construction of the cathode (electrolyte)

How does a Capacitor work?

The electric f_____ holds potential **energy**. When a load (resistor or a motor) is attached to the plates of the **capacitor**, it _____ the charge and converts the potential **energy** stored in the electric field, into _____ that drives electrons through the resistor or motor.

Electrons do not leap from one **capacitor** _____ to the other but while the **capacitor** is charging or discharging as many **electrons** leave one terminal as arrive at the other, they are not the same **electrons** but for all practical purposes you can say that changing currents _____.