Glossary

capacitance
amount of charge stored per unit volt

capacitor
a device that stores electric charge

defibrillator
a machine used to provide an electrical shock to a heart attack victim's heart in order to restore the heart's normal rhythmic pattern

dielectric
an insulating material

dielectric strength
the maximum electric field above which an insulating material begins to break down and conduct

electric potential
potential energy per unit charge

electron volt
the energy given to a fundamental charge accelerated through a potential difference of one volt

equipotential line
a line along which the electric potential is constant

grounding
fixing a conductor at zero volts by connecting it to the earth or ground

mechanical energy
sum of the kinetic energy and potential energy of a system; this sum is a constant

parallel plate capacitor
two identical conducting plates separated by a distance

polar molecule
a molecule with inherent separation of charge

potential difference (or voltage)
change in potential energy of a charge moved from one point to another, divided by the charge; units of potential difference are joules per coulomb, known as volt

scalar
physical quantity with magnitude but no direction

vector
physical quantity with both magnitude and direction