Basic definition of an electron

What is electricity?
Electricity is the flow of electrons (negative charge) through a conductor, generating power to perform some work.

What is a resistor and what does it do?
A resistor is an electronic component that limits or controls the flow of electrical current in a circuit, to manage voltage and current levels.

What are the basic components of an electronic circuit?
The basic components of an electronic circuit include resistors, capacitors, inductors, diodes, transistors, and power sources such as batteries or...

How does a capacitor work?
A capacitor stores and releases electrical energy. It consists of two conductive plates separated by an insulating material, capable of storing cha...

What is a diode and what is its purpose?
A diode is a two-terminal electronic component that allows current to flow in only one direction. It is generally used to convert AC (alternating c...

What is Ohm's Law and how is it used in electronics?
Ohm's Law relates voltage (V), current (I), and resistance (R) in a circuit through the equation V = I × R. It is a fundamental principle used to c...

How do transistors work and what are their applications?
A transistor is a semiconductor device that can amplify or switch electronic signals and electrical power. It works by controlling the flow of curr...

Transition metal, any of various chemical elements that have valence electrons--i.e., electrons that can participate in the formation of chemical bonds--in two shells instead of only one. They occupy the middle portions of ...

Mass spectrometry, analytic technique by which chemical substances are identified by the sorting of gaseous ions in electric and magnetic fields according to their mass-to-charge ratios. The instruments used in such ...

Basic Electronic Components are electronic devices or parts usually packaged in a discrete form with two or more connecting leads or metallic pads. These devices are intended to be connected together, usually by soldering to ...

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Electric current, any movement of electric charge carriers such as electrons, protons, ions, or holes. Electric current in a wire, where the charge carriers are electrons, is a measure of the quantity of charge passing any point ...

An electron-neutrino is emitted along with a positron in positive beta decay, while an electron-antineutrino is emitted with an electron in negative beta decay. Despite such predictions, neutrinos were not detected experimentally ...

Cathode and Anode are commonly used terms in the context of electrochemistry, specifically in electrochemical cells like batteries and electrolytic cells. An anode is a negative or reducing electrode that releases electrons and ...

Whereas quarks together form nucleons within the atomic nucleus, the electrons generally circulate toward the periphery of atoms. Indeed, electrons are regarded as distinct from quarks and are classified in a separate group of ...

Molecule, a group of two or more atoms that form the smallest identifiable unit into which a pure substance can be divided and still retain the composition and chemical properties of that substance. Learn more about the ...

Covalent bond, in chemistry, the interatomic linkage that results from the sharing of an electron pair between two atoms. The binding arises from the electrostatic attraction of their nuclei for the same electrons. A bond forms ...

electric charge, basic property of matter carried by some elementary particles that governs how the particles are affected by an electric or magnetic field. Electric charge, which can be positive or negative, occurs in discrete ...

Magnetism, phenomenon associated with magnetic fields, which arise from the motion of electric charges. It can be an electric current in a conductor or charged particles moving through space, or it can be the motion ...

Electromagnetism, science of charge and of the forces and fields associated with charge. Electricity and magnetism are two aspects of electromagnetism. Electric and magnetic forces can be detected in regions ...

Electronics is all about dealing with electricity and manipulating electric current in a circuit or wiring to achieve a pre-designed objective. Electricity is flow of electrons (Negative Charge) between two points when there is a ...

Electronics, branch of physics and electrical engineering that deals with the emission, behaviour, and effects of electrons and with electronic devices. Electronics encompasses an exceptionally broad range of technology.

Basic definition of an electron

The ...