

Vocabulary

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Study the vocabulary words and definitions below.

chain reaction..... a self-sustaining nuclear reaction; it continues without the addition of outside energies

control rod a barrier that slows a nuclear reaction by absorbing excess radiation

fission splitting the nucleus of an atom into two lighter parts

fission reactor a type of nuclear reactor that splits the nuclei of atoms

fusion a nuclear reaction in which two or more nuclei are pushed together to form one large nucleus

fusion reactor a type of nuclear reactor that would combine atoms

isotope an atom or group of atoms with the same atomic number but different atomic mass than other atoms of a specific element; this difference in mass is based on a difference in the number of neutrons within the nucleus of the atom

Vocabulary

nuclear energy the energy that holds the nuclei of atoms together; it is released in nuclear reactions and may be used to produce heat, electricity, or other forms of energy

nuclear reaction a reaction that occurs when an atom is split; large amounts of energy are released

nuclear reactor a machine used to control or create a nuclear chain reaction

nucleus the center of the atom; plural: nuclei

radiation the movement of energy as a wave

radioactive describing those elements or isotopes that spontaneously decompose and give off radiation

radioactive waste the waste produced by a nuclear reactor; though unusable it still releases radiation

radioactivity forms of energy given off by nuclear material

theory of relativity the theory that there is a fundamental relationship between matter and energy; $E=mc^2$ (E stands for energy, m stands for mass, and c stands for the speed of light.)