

Circuit Circus Vocabulary

Electricity: Energy produced when electrons flow from one atom to another. Electricity is generated by passing a wire through a magnetic field or by rotating a magnet past a wire. There are two basic kinds of electricity-static and current;

Static: Build up of electrons and then passing them on

Current: Steady flow of electrons from a source, through a conductor to an appliance and back to the source.

Generator: A machine that changes mechanical energy into electrical energy by moving a coil of wire in a magnetic field. Generators are used to turn turbines to bring power to our homes and businesses. Power sources:

Fossil fuels like wood or coal are burned to produce heat to create steam.

Hydroelectric power uses dams to harness the energy of flowing water.

Nuclear reactors split atoms to release heat energy used to create steam.

Windmills are used in areas where the wind blows regularly.

Solar cells collect energy from the sun.

Chemical energy comes from the reaction of two or more chemicals such as in a battery or in the human body.

Battery: A device that creates electricity from chemical reactions.

Conductor: A material that lets electricity flow through it (metal, water).

Insulator: A material that does not allow electricity to move through it (wood, plastic, glass).

Circuit: A route around which an electric current can flow. Beginning and ending at the same point. There are 2 types of circuits- series and parallel.

Magnetism: The ability of iron, steel, nickel or cobalt to attract other pieces of iron, steel, nickel or cobalt (either permanent or temporary).

Electromagnet: A piece of metal (iron or steel) that becomes a temporary magnet when electricity flows through it, creating a magnetic field.