Vocabulary Cards

atom	**n.** the smallest particle of a chemical element, consisting of a positively charged nucleus surrounded by negatively charged electrons. **" Negative electrons and positive protons attract each other to keep the balance."**
attraction	**n.** a force under the influence of which objects tend to move towards each other. **" The force of attraction makes a magnet stick to the fridge".**
balance	**n.** a condition in which different elements are equal or in the correct proportions. **"When an atom has the same number of protons as of electrons, it is balanced, or neutral".**

battery	**n.** a device containing one or more electrical cells, for use as a source of power. **"Some toys are run by batteries".**
circuit	**n.** a system of conductors and components forming a complete path for an electric current. **"An electric circuit needs to be closed in order to work".**
connect	**v.** join together so as to provide access and communication. **"When all the parts of a circuit are connected, we say it is closed".**

device	**n.** an invention serving a particular purpose, especially a machine used to perform one or more relatively simple tasks. **" A light bulb, a buzz, or a computer, are devices that can be connected to an electric circuit".**
electricity	**n.** a form of energy resulting from the existence o charged particles (such as electrons or protons), either statically as an accumulation of charge or dynamically as a current. **" We use electricity to light our houses, and play music".**
electron	**n.** a negatively charged particle found in all atoms and acting as the primary carrier of electricity. **"When you rub a balloon against your hair, the electrons in your hair move to the balloon, and the balloon gets negatively charged".**

energy	**n.** the capacity to do work. **"Energy makes our bodies work, plants grow, and the central heating in our homes work".**
magnetic field	**n.** region around a magnet within which the force of magnetism acts. "**The Earth is surrounded by magnetic fields, and so is a magnet".**
magnetic pole	**n.** 1. each of the points near the extremities of the axis of rotation of the earth where a magnetic needle points. 2. each of the two points of a magnet to which the lines of magnetic force are directed. **"The magnetic poles of a magnet and of the earth are called South pole and North pole".**

mains	**n.** (the mains) public water, gas, or electricity supply through pipes or cables to our homes. The wall outlets for electricity. **" The voltage coming from the mains of your home is 220 volts, and it's very dangerous".**
parallel	**n.** (of electrical components or circuits) connected to common point at each end, so that the current is divided between them. **"Parallel circuits are made with two wires running side by side".**
proton	**n.** a particle in the nucleus of an atom, with a positive electric charge equal in magnitude to that of an electron. **"When protons and electrons are the same number in an atom, the atom is neutral".**

repulsion	**n.** a force which makes objects to move away from each other, e.g. through having the same magnetic polarity or electric charge. **" Two positive atoms and two negative atoms experience repulsion".**
search	**n.** try to find something by looking carefully and thoroughly. **"Electrons travel through the electric current searching for protons".**
series	**n.** (of electrical components or circuits) arranged so that the current passes through each component successively. **"A circuit in series has a continuous circle of wire with the components connected to it".**

switch	**n.** a device for making and breaking an electrical connection. **"We add a switch to electric circuits to be able to turn on and off the electric current".**
volt	**n.** the International System Unit of electric potential. **"A 9 volt battery is safe to handle, but the mains voltage is much higher and dangerous".**
wire	**n.** metal string, used for fencing, to carry an electric current, etc. **"If the wires aren't properly connected to the battery, your circuit won't work."**