

## Electricity and Magnetism Review

Energy Ability to do work. It has no mass and is not a form of matter. It just changes from one state to another.

Forms of energy Heat (thermal), Electrical (computer, lamps) light, wind, hydrolic, nuclear

Thermal energy (heat energy) Friction produces heat when you rub your hands. A burning candle and a bon fire on the beach is changed to heat and light energy. To increase temperature you need to add energy.

Electrical energy An incandescent light produces heat and light energy. You need electrical energy to turn on the oven, T. V, computer.

Static electricity Positive + charge attracts to a negative - charge. Like charges (positive + and positive + ) repel each other.

Magnetism Opposites attract. Force is greatest at the poles. It's attracted to iron. Like poles repel. The stronger the magnet the more it attracts.

Circuits With an open circuit the light will not go on

Insulators rubber, wood, plastic, paper

Conductors copper, iron, steel, metals, gold, aluminum

Electromagnets You need a power source for it to work. When a wire is coiled around a nail it becomes a magnet. Telegraph, telephone t.v.