P5 – Electric Circuits

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| **Key Word** | **Definition** |
| Static Electricity | Electric charge that is not moving around a circuit, but has built up on an object, eg. Comb or rubbed balloon. |
| Charge | Electric charge is a basic property of matter. |
| Electrons | A tiny particle which is part of an atom.  |
| Electric Field | A region where an electric charge experience a force. |
| In Series | A way of connecting electric components so that all in a single loop. The charges pass through them all in turn.  |
| In Parallel | A way of connecting electric components that makes a branch in the circuits so that charge can make round more than one loop. |
| Electric Current | A flow of charges around an electric circuit. |
| Ammeter A | A meter than measures the size of an electric current in the circuit. |
| VoltageSYMBOL: I | The voltage is the push exerted on the charges in an electric circuit. The voltage between two points in a circuit means the ‘potential difference’ between these points. |
| Electric Circuit | A closed loop of conductors connected between the positive and negative terminals of a battery or power supply. |
| Resistance | The resistance of components in an electric circuit indicates how easy or difficult it is to push charges through it. |
| Ohms Law | The result that the current, I, through a resistor, R, is proportional to the voltage, V. |
| Voltmeter | A component that measures voltage. |
| Potential Difference | The difference in potential energy (for each unit of charge flowing) between any two points in an electric circuit.  |
| Power | The rate of which work is done by the battery.  power = current x voltage |
| Kilowatt Hour | The amount of electrical energy converted by a 1kW appliance, left on for 1 hour. |
| Efficiency | The percentage of energy supplied to a device that is transferred to the place we want. Efficiency = Energy usefully transferred  Total energy suppliedx 100% |
| Transformer | An electrical device consisting of two coils of wire wound on an iron core. An alternating current in one coil causes a changing magnetic field which induces and alternating current. |
| Electromagnetic Induction | The name of the process in which a potential difference is generated in a wire where the magnetic field changes.  |
| National Grid | System of overhead and underground cables that carry electricity around the country. |