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| **I:\Cross Gates Primary\Cross Gates Primary LOGO.jpg**  | **Electricity** | **I:\Cross Gates Primary\Cross Gates Primary LOGO.jpg** |
| **Year Group: 6** | **Subject Focus: Science** | **Term: Autumn 1** |
| **Key facts*** Electricity was not invented - it was discovered by humans. The energy was always there on Earth but needed someone to find that spark.
* The brightness of a bulb is affected by the voltage in the circuit - the lower the voltage, the dimmer the bulb.
* Changes to components in a circuit has an effect on the brightness of its bulb or the volume of its buzzer.
* Electricity comes from the power station, the wind, the sun, water and even an animal’s poo!
* Electricity is a type of energy that builds up in one place (static), or flows from one place to another (current electricity).
 | Components of a circuit and their symbols. | **Key words:**

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| battery | A device that stores chemical energy until it is needed. A battery is a collection of cells. |
| Bulb / lamp | Converts electricity to light or heat.  |
| buzzer | A component that can create an audible tone or make a sound.  |
| cell | A device that stores chemical energy until it is needed. A cell is a single unit. |
| circuit | A path that an electrical current can flow around. |
| component | A part or device within a circuit.  |
| motor | Converts electricity to movement.  |
| resistance | The difficulty that the electric current has when flowing around a circuit. |
| switch | Opens and closes the circuit.  |
| voltage | The force that makes the electric current move through the wires. The greater the voltage, the more current will flow. |

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| **Did you know?*** Lightning is caused by the discharge of electricity in the atmosphere.
* Electricity travels at the speed of light. That's more than 186,000 miles per second!
* **Alessandro Volta** – Italian physicist who is credited with inventing the battery
* **Edith Clarke** – American scientist who was the first woman to be professionally employed as an electrical engineer in the United States
* **Benjamin Franklin** - most credited for discovering electricity in 1752. In an experiment, he attached a wire to a kite in a thunderstorm, which showed that lightning consists of electricity.
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| **Exciting books / web links:**<https://www.makerspaces.com/squishy-circuits/><https://www.bbc.co.uk/bitesize/topics/zj44jxs><https://www.stem.org.uk/resources/community/collection/12390/year-6-electricity> | **Parents as partners:*** Investigate how much the electricity for school or home costs and how we could save money.
* Write a persuasive letter to parents or others in the community encouraging them to use less electricity.
* Discover how life different in times before electricity? What electrical devices do we have now that weren’t around in the past?
* Create electrical games such as an ‘Operation’ style game or a steady hand game where a hoop must be moved without touching a metal wire.
* Encourage your child to research how electricity is used in the modern world
* Create a fact file about Alessandro Volta, Edith Clarke or Benjamin Franklin.
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