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| I:\Cross Gates Primary\Cross Gates Primary LOGO.jpg | **DT: Torches** | | | **I:\Cross Gates Primary\Cross Gates Primary LOGO.jpg** |
| **Year Group: 4** | **Subject Focus: DT** | **Term: Summer 1** |
| **Key Knowledge:**   * Identify electrical products and explain why they are useful. * Help to make a working switch. * Identify the features of a torch and how it works. * Describe what makes a torch successful. * Create suitable designs that fit the success criteria and their own design criteria. * Create a functioning torch with a switch according to their design criteria.    **Useful and Reliable Websites**  * [BBC Bitesize - Design and Technology](https://www.bbc.co.uk/bitesize/subjects/zfr9wmn) * [Primary Homework Help](http://www.primaryhomeworkhelp.co.uk/) * [Tech Club - Making a Torch](https://www.techclub.org/projects/make-a-torch) | | **Technical Knowledge:**  This is a **series circuit**: the **battery** contains stored electricity and this is used to power the bulb. When the **switch** is turned on, the **electrical** current flows through the **conducting** material.    **Facts:**   * The word "torch" is commonly used in British English for what is referred to as a "flashlight" in American English. * LED (Light Emitting Diode) torches consume less power and last much longer than traditional light bulbs. * The first torches were made using gas or oil, which were bulky and not very safe compared to modern designs. * The UK is home to one of the largest manufacturers of torches and lighting products in the world! | **Key words:**   |  | | --- | | **Battery: Made from two or more cells that provide electrical energy to power a circuit.** | | **Conductor**: A material that allows electricity to flow through it, such as a metal. | | **Design Criteria**: A set of instructions for the project. | | **Electricity**: A type of energy that is usually invisible and can be made or stored to make things work, such as moving or heating objects. | | **Insulator**: A material that does not let electricity flow through it, such as plastic. | | **Series Circuit**: A closed circuit where the current flows in one path. | | **Switch**: A part of a circuit that can open or close to allow electricity to flow or stop it from flowing, such as a light switch that turns on or off. | | **Test**: To find out whether something works as it should. | | **Torch**: A battery-powered light that can be carried. | | **Wire**: A thin piece of copper that conducts electricity and connects circuit components together. | | |

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