

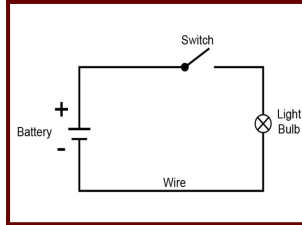


Aspire Curriculum Knowledge Organiser: Grand Designs

Big Question: How can I used recycled materials and electrical components to make a torch?

Year 4

Spring



Big Ideas	What? Key Knowledge Takeaways	Key Vocabulary	Definition
<p>I can collaborate with my peers to create a design criteria, including purpose and audience.</p> <p>I can create designs using annotated sketches/pictorial representations to communicate my ideas.</p> <p>I can use technology to research and develop my ideas.</p> <p>I can order the main stages of the making process.</p> <p>I can identify the strengths and areas for improvement in my work.</p> <p>I can identify famous designers and begin to discuss their impact on the world.</p>	<p>A torch is a battery powered light source. It should be portable, lightweight, sturdy, comfortable to hold, easy to turn on and off and bright enough to see by.</p> <p>The first battery powered torch was patented by David Misell. Today, Maglite is the most famous and recognised torch manufacturer.</p> <p>A torch contains an electrical circuit. An electrical circuit provides a path that carries an electrical current.</p> <p>For an electrical circuit to light a bulb, you'll need an electrical source (a battery), two wires, and a light bulb.</p> <p>A switch in circuit will enable you to turn the bulb on and off. When the switch is open, the circuit is broken and electricity will not be able to flow around the circuit and the bulb will not light up. When the switch is closed, the circuit is complete and electricity can flow, lighting up the bulb.</p>	<p>circuit</p> <p>wires</p> <p>cell/battery</p> <p>switch</p> <p>bulb</p>	<p>A circuit is a complete path around which electricity can flow.</p> <p>Wires are long, thin and flexible pieces of metal used to carry electricity.</p> <p>In a circuit, the battery is the main source of energy that provides a voltage which allows the current to flow through.</p> <p>A component within an electrical Circuit which enables the flow of electricity to be turned on and off.</p> <p>A light bulb is an electrical component that produces light.</p>

Who? Famous People

Thomas Edison	Carl Gasner	David Misell	Anthony Maglica
1878 - credited with inventing the first commercially viable light bulb.	1886 - invented the first dry cell battery.	1899 - patented the first electric torch that used batteries to power it.	1979 - founded Maglite, a leading brand of torch manufacturer.