

Y6 Design Technology – Electrical Systems

Design Brief – Design a game to play with your friends

Essential Knowledge

How does electricity work and how can a circuit be created?

The electrical current then flows through various components to create different outputs. For example, electric current flowing through a lamp will cause light to be produced.

How can electricity help make a game?

A game can be designed around an electrical circuit. Certain inputs will produce outputs in the circuit such as a buzzer sounding or a lamp lighting up.

How can you use tools safely and effectively?

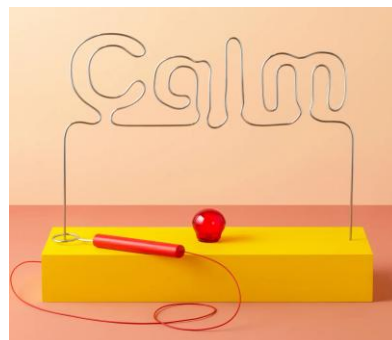
It is important to choose the correct tools so that, for example, wire can be cut safely and effectively.

How effective was your design?

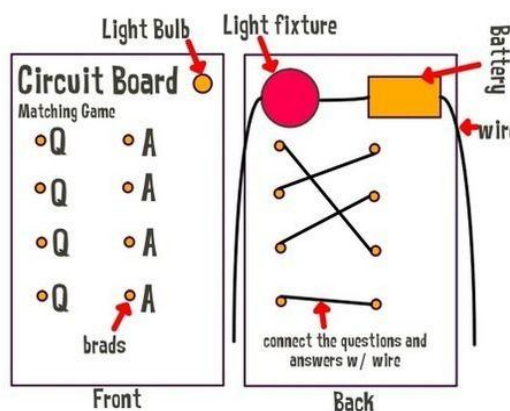
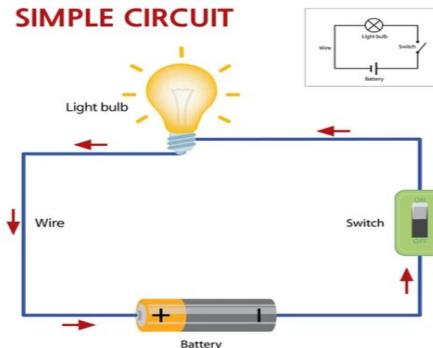
When evaluating the design of the game, the plan and the outcome will be compared, while considering why any modifications were necessary to make the game successful.

Aspirational Knowledge and Skills

To use a variety of electrical components and be able to say which components fit best for purpose.



SIMPLE CIRCUIT



Key Vocabulary

series circuit	all component for one single loop or circuit
parallel circuit	component can form two or more loops or circuits
switch	a simple connection in the circuit that breaks or completed the connection
function	the purpose of the circuit
input	a part of an electrical circuit that you use to start or control what happens
output	the result of something
design	a plan or drawing to show the look and function or workings of something

Project Process



Explore



Design



Make



Evaluate







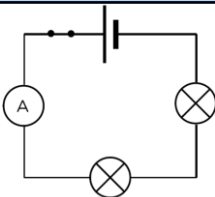
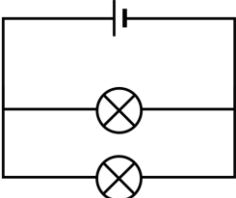

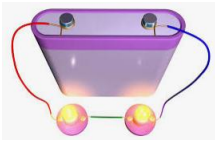
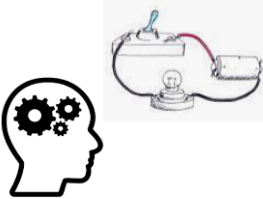
Y6 Design Technology – Electrical Systems

Design Brief – Design a game to play with your friends



Key Knowledge
<p>How can a circuit be created? A circuit can be created by connecting electrical parts. When they are connected, electricity can flow around the circuit.</p>
<p>How can electricity help make a game? You can design a game that uses electricity to give an output such as a lamp lighting up.</p>
<p>How can you use tools safely and effectively? It is important to choose the correct tools so that for example, wire can be cut safely.</p>
<p>How successful was your design? You need to compare the original plan to the game that was made and think about what worked and what did not.</p>

Project Process
   
<p>Explore Design Make Evaluate</p>

Key Vocabulary		
series circuit		all the electrical pieces connected in one circle
parallel circuit		the electrical parts can make two or more loops
input		a part that lets electricity start or change what the game does
output		the result of something
design		the starting idea for what the game will do and how to make it



WISDOM BEGINS DESIGN

Y6 Design Technology – Textiles

Design Brief – Can you make a drawstring bag?



WISDOM BEGINS DESIGN

Essential Knowledge

How is a drawstring bag constructed?

A drawstring bag is made by following a design process. First, the designer makes a mood board to gather ideas and inspiration. Then, they use those ideas to plan and design the bag.

How do you make a drawstring bag?

A drawstring bag is made by sewing fabric into a pouch shape with an open top. A channel is sewn near the top edge where a cord or string is threaded through. When you pull the string, it tightens the opening, closing the bag securely.

What stitch will you use to join your material?

A backstitch, blanket stitch and a running stitch are used in different parts of the construction of the drawstring bag.

What makes a successful design?

When evaluating the drawstring bag, the plan and the outcome will be compared, while considering why any modifications were necessary to make the bag successful.

Aspirational Knowledge and Skills

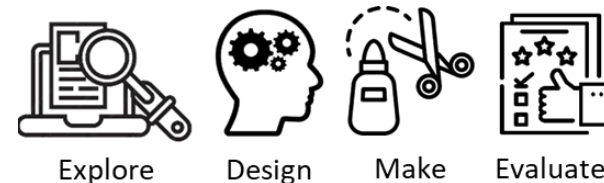
Understand why different materials are used for different purposes.
Identify areas for improvement in bag design and construction.



Key Vocabulary

design	the plan for the way the bag will look and the material used
material	what the bag will be made from
prototype	a test model of the bag
functionality	how the bag can be used
originality	how unique the bag is
drawstring	a cord to pull the top of the bag closed
stitch	the type of sewing used to hold the bag together
fastenings	objects used to close the bag

Project Process



Y6 Design Technology – Textiles

Design Brief – Can you make a drawstring bag?

Key Knowledge
<p>How is a drawstring bag made? First, the designer makes a mood board to collect pictures and ideas. Then, they use those ideas to help them draw and plan the bag.</p>
<p>How do you make a drawstring bag? A drawstring bag is made by sewing fabric into a pocket shape with an open top. Near the top, a space is made to fit a string through. When you pull the string, it closes the top of the bag.</p>
<p>What stitch will you use? A backstitch, blanket stitch and a running stitch are used in different parts of the construction of the drawstring bag.</p>
<p>What makes a good bag? When checking the drawstring bag, we look at the plan and see how it turned out. We think about what changes were made and why. This helps us understand how to make the bag work well.</p>



Key Vocabulary		
design		thinking of an idea and planning how to make something
material		what something is made from, like wood, fabric, plastic, or metal
purpose		the reason why something is made or what it is used for
drawstring		a cord or string that goes through the top of a bag. it helps keep things safe inside the bag
stitch		what you make when you use a needle and thread to join pieces of fabric together

Project Process			
<p>Explore</p>	<p>Design</p>	<p>Make</p>	<p>Evaluate</p>