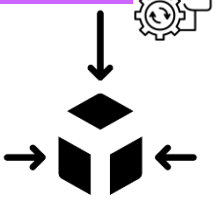
Design Brief: To make a Victorian lantern with an electrical component.

Strand of DT



Electrical systems & Structures

DT process

Product Research

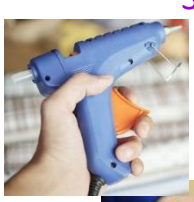
Design

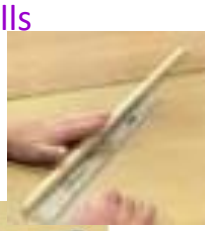
Make

Evaluate

Vocabulary	
joint	A place where two things are joined together.
mitre joint	A union between two pieces, each cut at an angle, at a corner.
lantern	A lamp with a transparent case protecting the flame or electric bulb, and typically having a handle by which it may be carried or hung.
circuit	A complete path around which electricity can flow.

Skills





measuring, sawing, joining

Finished product

What?

- Designers conduct market research before the manufacturing process to find out what is already on the market to help inform their designs.
- The quality of a product depends on how well it is made and how well it meets its intended purpose.

- A prototype normally looks like and works like the real thing. It is the first example and there may be some problems with it which may be changed in the final design.
- A prototype is used for testing, development and evaluation.

Design criteria –

1. Holds a parallel circuit.
2. Is appropriate for recipient (from Victorian era).

1. Made out of a strong material (wood).
2. Has transparent/translucent materials to allow light to pass through.
3. Has a handle.

- Designs must be realistic so that the final product is accurate and high quality.
- Materials can impact the aesthetics, stability and quality of a final product.

- Measure and mark your wood at the longest point of the mitre cut.
- Clamp the wood in place lining up the mark with the mitre groove in the block.
- Grip the handle of the saw with the hand you write with.
- Hold the wood in place with your other hand on the other side of the clamp so that injuries are avoided.
- Start the cut by applying little pressure onto the saw and pull back to make a groove in the wood. Angle the tip of the saw down.
- Lightly press down on the saw and keep cutting through the wood.
- Slowly move the saw back and forth, towards the body and away from it.
- Continue the sawing motion until the piece of wood is ready to break off. Slow down and apply less force towards the end, to avoid cracking or splintering the wood.
- Card triangles can be used to reinforce joints.

- Reflecting and evaluating progress and adapting designs along the way is an important part of being a designer.

- Designers evaluate their finished product in order to test whether they work well and if the design can be corrected or improved.