

Kings Quest

Making a light up sign for the King's Ball

DT Theme:
(Mechanisms unit)

Teaching focus:
Learning Lens: Mechanisms
Class: Year 4

Previous Knowledge

(Y1 mechanisms - Moving Pictures) (Y4 Electricity Science)

Project Hook or 'Wow' memory

Looking at light up signs from around the world

Learning Steps

Key Knowledge

Explore a range of light up boxes

Discuss the purpose of light up signs. Explore the history – they have been used for years to advertise different things. Remind the children of their work on electricity in science.

Design a light up box

Create a design for a light up sign / box. Draw and label a plan.
Plan the shape of the sign – flat or 3D
Plan how to advertise the King's Ball.

Design the frame to support an electrical circuit

Consider how to fix an electrical circuit to the light up sign / box.
What materials would be safe.
Measure and cut wood to create the frame.
Measure and cut corraflute (corrugated plastic)
Create sign / box

Circuits - create a circuit and add multiple bulbs

Create a circuit. Explore how to fix this to structure of light box.
(Could use pre-made light strings in final product)

Evaluate the design plan and final product against the success criteria

Use design criteria to assess the different light up boxes.
Evaluate own product and suggest improvements

Key skills

Design a light up box that meets the brief - of being a beacon to show where the King's party is (Linked to Pavilions)

Build a stable structure designed to contain an electrical circuit with a/lots of bulb/s

Choose appropriate materials to build a strong, safe structure for the circuit and light up box.

Adapt, test and evaluate the final product against the planning

Key vocabulary

Circuit
Structure
2D / 3D

Innovate
Design Brief
Lettering

Final outcome

Children create a light up sign

5-a-day
Adult support
Mixed ability groups
Visual instructions - widgets

