



Year 4 Knowledge Organiser

DT Spring Term
Imaginary World Creation

What I should already know.

- Be able to describe the materials used to make a structure.
- Select appropriate tools and materials, explaining choices.
- Use folding and joining to make materials for a structure stronger.

Electrical and Mechanical Systems

What will I know by the end of the unit?

To be able to create a stable structure based on the Year 4 'Imaginary Worlds' theme.

To make an imaginative model world including the use of recycled materials for specific moveable and visual effects.

To incorporate an electrical circuit.

Vocabulary

Electronic / electrical

Tunnel

Hinged

Reflective

Moveable

Rigid

Base

LED / Sparkle

Motor

Platform

Recycled materials

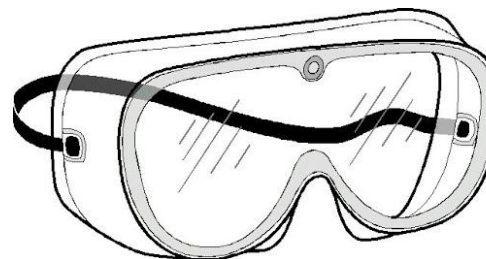
Rollers

Circuit

Arch

Crumble board

Levels



Key Knowledge

Gather information about needs and wants linked to Theme, and develop design criteria.
Order the main stages of making.
Select from and use tools and equipment to cut, shape, join and finish with some accuracy.
Create shell or frame structure.
Make structures more stable by giving them wide base.
Incorporate a circuit with a light or motor into a model.
Create and modify a computer control program to enable an electrical product to work – through the introduction of CRUMBLE boards to program lights and motors.
Evaluate their ideas and products against their own design criteria and identify the strengths and areas for improvement in their work.

Outcome



Investigate!

Create an imaginative and stable 3D 'Imaginary World' shoebox model linked to the Year 4 theme. The model will use recycled materials for specific moveable and visual effects. Pupils will incorporate an electrical circuit or apply their understanding of computing to program, monitor and control these moveable and visual effects.