

Design Technology -Mechanical pictures - Year 3 Autumn Term

Prior Learning
Year 1 - Moving picture
Christmas cards

Vocabulary

Design brief - it outlines the most important factors to consider when starting a project.

Mechanism - a device used to create movement in a product.

Lever - a stiff bar which moves around a pivot.

Linkage - card strips joining one or more levers to produce the type of movement required.

Loose Pivot - a paper fastener that joins card strips together.

Fixed pivot - a paper fastener that joins card strips to the backing card.

Prototype - a first version of a product from which improvements and changes can be made.

Guide - a strip of card used to keep a lever in position.

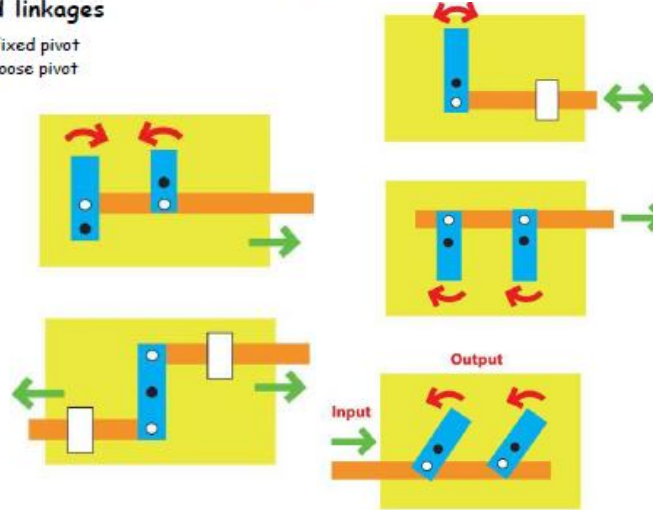
Design Process



Types of movements using linkages and levers

Teaching aids to demonstrate levers and linkages

- Fixed pivot
- Loose pivot



Materials and Consumables

Card



Colouring pens and pencils



Split pins



Plasticine



Processes

Design

What will be your moving parts? How will they move?

Prototype

Practising and testing the moving parts.

Cut

Measure levers first before cutting. Cut neatly around drawn pictures.

Join

Is this a fixed pivot or a loose pivot? What is the split pin joining together?

Can I answer?

- What is the input and output movement on this mechanism?
- Is this a fixed or loose pivot?
- How can we keep this lever in position?
- Why do we make a prototype?
- How can we strengthen a strip of card being used as a lever?