



Year 3 - Spring - Design & Technology Knowledge Organiser

What I already know...

Explored and used mechanisms such as flaps and levers.
 Gained experience of basic cutting, joining and finishing techniques with paper and card.
 That a lever can be used to help us lift and move things.

What I will learn...

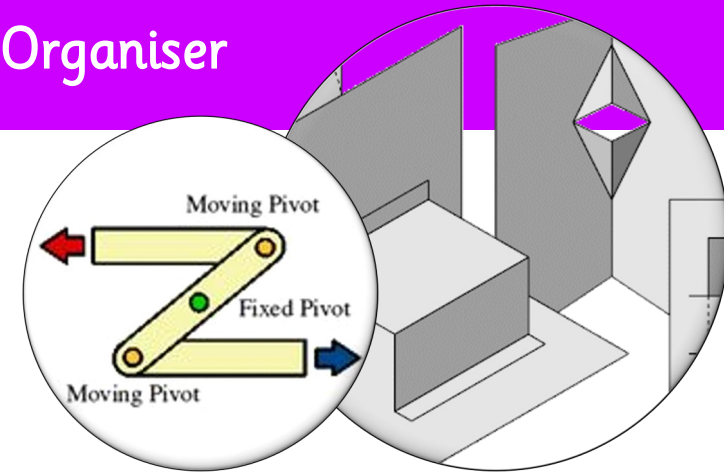
- That you can join materials effectively using glue or tape.
- Understand how lever and linkage mechanisms work.
- Distinguish between fixed and loose pivots.
- Know the names of two pop-ups (layer and v-fold)
- Know what tools are appropriate for cutting and shaping card.
- Know and use relevant technical vocabulary

Key Vocabulary

Mechanism	A device used to create movement.
Lever	A machine to help us lift things around a pivot.
Loose pivot	A fastener that joins card strips together.
Fixed pivot	A fastener that joins card strips to the backing card.
Linkage	The strips that join levers to produce movement.
Input	The movement of the user.
Output	What happens as a result of the input.
Slot	The hole that a lever is placed through to enable movement.
Guide / bridge	A strip used to keep mechanisms in place and control movement.

Making a difference at home

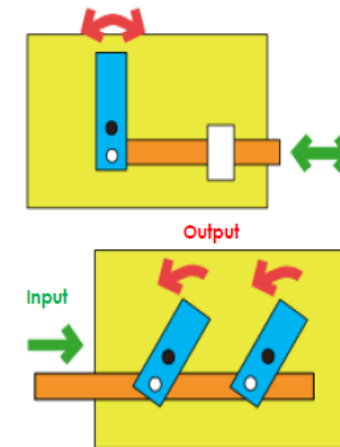
Do you have any pop-up books at home or have you ever seen any in Birthday or Christmas cards?
 Can you look with an adult and figure out how they work?



Making a difference at The Merton

Children will design, plan and make moving images and pop-ups, based on ideas from examples. They will work with card to make levers and linkages, building on work with levers in KS1 and their knowledge from last terms work with Roman catapults.

They will build up from focused tasks to applying their newly learnt skills to make their own greetings card.



Lever and linkage mechanisms usually produce oscillating or reciprocating movement:

- Linear – in a straight line
- ↕ Reciprocating – backwards and forwards in a straight line e.g. a slider
- ↻ Rotary – round and round e.g. a wheel, cam, pulley, gear wheel
- ↶ Oscillating – backwards and forwards in an arc e.g. a lever