

Lunt's Heath Primary School - Design and Technology Knowledge Organiser

Mechanisms

Sliders and levers

Year 1

Term: Autumn 2

What? (Key Knowledge)

Prior Learning

- Early experiences of working with paper and card to make simple flaps and hinges.
- Experience of simple cutting, shaping and joining skills using scissors, glue, paper fasteners and masking tape.

Designing

- Generate ideas based on simple design criteria and their own experiences, explaining what they could make.
- Develop, model and communicate their ideas through drawings and mock-ups with card and paper.

Making

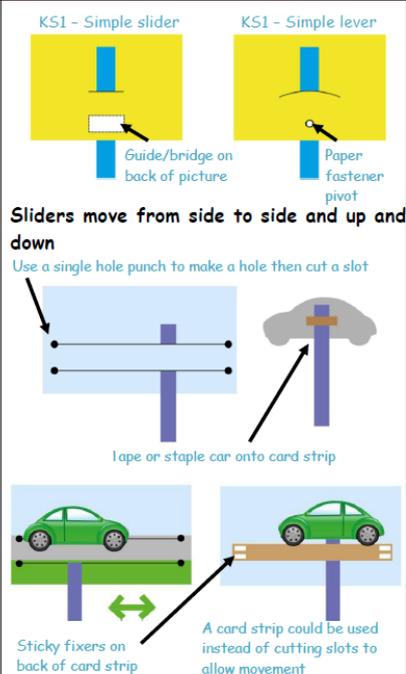
- Plan by suggesting what to do next.
- Select and use tools suitable for the task, explaining their choices, to cut, shape and join paper and card.
- Use simple finishing techniques suitable for the product they are creating.

Evaluating

- Explore a range of existing books and everyday products that use simple sliders and levers.
- Evaluate their product by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.

Technical knowledge and understanding

- Explore and use sliders and levers.
- Understand that different mechanisms produce different types of movement.
- Know and use technical vocabulary relevant to the project.



Possible Experiences

- Explore and evaluate a collection of books and everyday products that have moving parts, including those with levers and sliders.

- Develop knowledge and skills by replicating a slider and lever.
- Add pictures to own mechanisms.

What? (Key Vocabulary)

Spelling	Definition/ Sentence
Mechanism	a device used to create movement in a product.
Lever	a rigid bar which moves around a pivot. Levers are used in many everyday products. In this project children will use card strips for levers and paper fasteners for pivots.
Slider	a rigid bar which moves backwards and forwards along a straight line. Unlike a lever, a slider does not have a pivot point.
Slot	the hole through which a lever or slider is placed to enable part of a picture to move.
Guide or bridge	a short card strip used to keep sliders in place and control movement.
Pivot	the central point on which a mechanism turns.

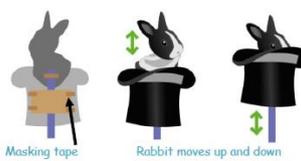
Diagrams and Symbols

Design, make and evaluate a slider or lever.

Levers can be used with or without a slot



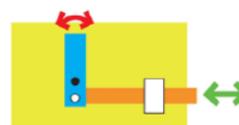
A card strip is used as a lever. The fish and boat are glued to the lever which is used as a handle.



Simple mechanisms move:

- in a straight line
- in a straight line, backwards and forwards
- round and round
- in a curve

- Fixed pivot
- Loose pivot



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