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Year 3 DT Mechanisms Story Books - Knowledge Organiser



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To be able to create a sliding mechanism

To investigate and evaluate products with lever and linkage systems

★ Star Vocabulary

Mechanism

Slider

Slot

Lever

Fulcrum

Pivot

Design

Make

Evaluate

Overview

Sliders and Levers are mechanisms that make things move. Mechanisms are the parts that make something work. Mechanisms are all around us! Most objects that help us in our lives are made up of different mechanisms.

Sliders make things move from side to side and up and down.

Example

Children's book. As the slider is pushed or pulled, characters or objects move up and down or side to side.



Levers are slightly more complex using a fixed point which enable to lever to pivot – making things move in a curve.

Example

Scissors. Scissors have two levers which are fixed. These are handles at one end of the levers and the blades together at the other end.

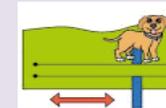
Key Skills - Designing

Purpose -What it is for? User - Who will use it?

Effective sliders and levers should move smoothly and create a movement that is appropriate to the subject matter.

Sliders

When creating your story book consider where you will place the slot and how long it will be. This can change how far you slider can slide! Also think about where you will put your guide so that the slider only moves where you want it to.



Levers

Decide where you will position your fulcrum (a fixed point around which the lever can pivot). The further it is from the object, the more your object at the end of the lever will move.

Making

Sliders and levers can be made using card, lollipop sticks

Sliders Use a punch as a starting point

Add a card strip at the back instead of a slot

Guides can be made using strips of card with masking tape

Lever Use Blu Tack and card and press a pencil through the lever to create a point

Making and Evaluating

Evaluating

How well does the mechanism move /work?

Does it move smoothly

Where did you position the slot?

How did this affect the mechanism?

What would you do to improve it and how ?

Research the different types of sliders/levers and look at a range of different books that use these mechanisms.

Decide which type of mechanism you will use for your book.

Create a plan/design of your book.

Make your book using the mechanism.

Evaluate your book and how effective your choice of mechanism was.

Timeline