

## Elton Primary School- Knowledge Organiser

**DT Topic:** Mechanisms - Design and make moving toy

**Year:** Year 2 Spring 2

### Key Knowledge

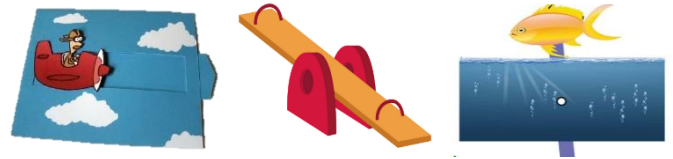
#### Sliders and Levers

Mechanisms are the parts that make something work.


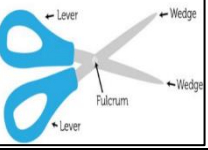
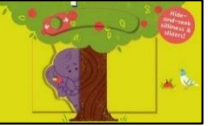

- -Mechanisms are all around us! Most objects that help us in our lives are made up of different mechanisms
- Sliders and Levers are mechanisms that make things move.
- Sliders help to move things from side to side and up and down.
- Levers are slightly more complex. They use a fulcrum (a fixed point around which the lever can pivot) to make things move in arc (curve).

### Vocabulary

Word	Definition
mechanism	a system of parts working together
develop	to create and improve something
levers	a rigid bar resting on a pivot, used to move something
sliders	a lever that is moved to control an object
axles	a rod passing through the centre of a wheel
materials	the matter from which a thing is made
product	an article that has been made (for sale)
attach	to join something to something else
fulcrum	a point against which a lever is placed



### Example Mechanisms

	Levers Seesaw	-A <u>seesaw</u> is one example of a lever mechanism. Seesaws are a narrow board supported by a <u>fulcrum in the middle point</u> between the two ends. As one end goes up, the other comes down!
	Scissors	- <u>Scissors</u> are another example of a lever mechanism. Scissors have <u>two levers fixed</u> -[handles are squeezed at one end of the levers, the blades come together at the other end.
	Sliders Children's Books	-Some <u>children's books</u> contain slider mechanisms. As the slider is <u>pushed/ pulled</u> , characters/objects move up and down or side to side in the book.
	Drawers	- <u>Drawers</u> also work on a slider mechanism. As you <u>pull/push</u> the handle, drawers slide along a <u>slider track</u> inside the cabinet.

### Making & Evaluating

#### Making

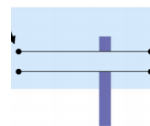
- Sliders and levers can be made using card, lollipop sticks, or another thin, firm material.

#### Sliders

- Use a hole punch to as the starting point for your slot. Instead of a slot, you could attach a card strip to the back of your product.
- Guides can be made using strips of card fixed with masking tape.

#### Levers

- To create the hole for the fulcrum, place the card backdrop over a piece of Blu Tack and pressing a pencil through. The fulcrum can be attached using a paper fastener.



#### Evaluating

- How well does your mechanism work? Does it move smoothly?
- Does it meet its purpose?
- Who would use your mechanism? What would they like about it?
- Where did you position the fulcrum/ bridge?
- How did this affect the mechanism?
- What else could you do to improve your mechanism?



