

# Push and Pull

## Machines and mechanisms

Machines make work easier. They can help us to move or lift objects. Machines are made up of different parts called components.

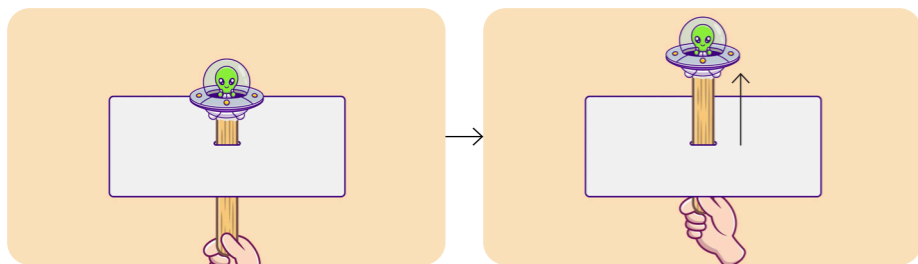


A group of components that work together make a mechanism. Mechanisms usually make something move. Mechanisms include sliders, levers and linkages.

## Slider mechanism

A slider is a mechanism that moves in a straight line. This can be from side to side or up and down. It is made up of a slider and a slider guide to direct the movement.

A push or pull at one end of the mechanism makes the other end move in the same direction.



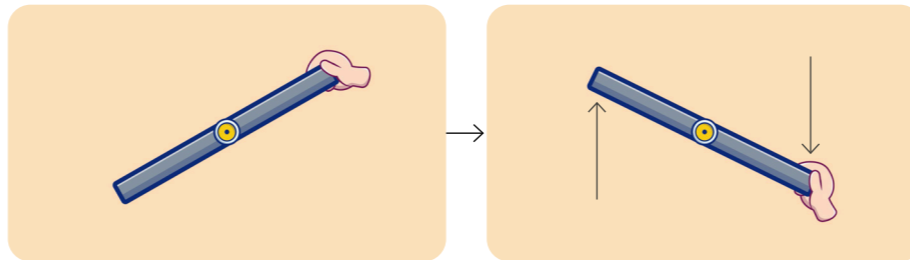
Door bolts and drawers use slider mechanisms.



## Lever mechanism

A lever mechanism is a bar that moves around a fixed point called a pivot.

When one end of the bar is pushed or pulled in one direction, the other end moves in the opposite direction.



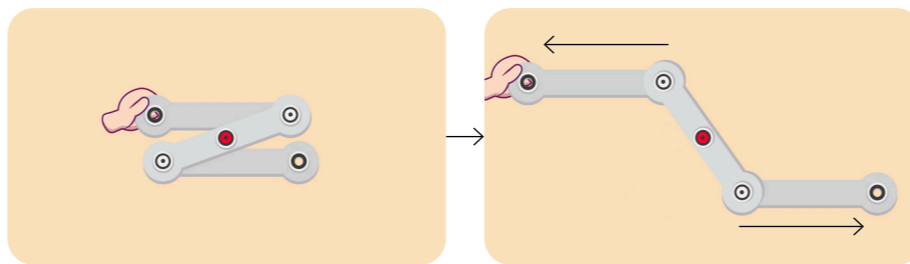
Scissors and seesaws use lever mechanisms.



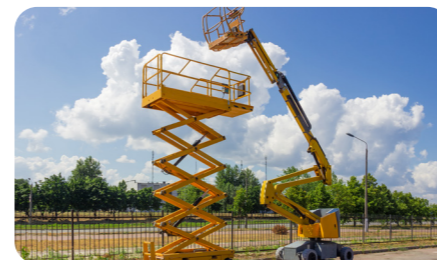
## Linkage mechanism

A linkage mechanism combines levers and sliders. It consists of two or more bars joined together by pivots.

Moving one bar can make the other bars move in different directions.



Toolboxes and scissor lifts use linkage mechanisms.



## Making a moving mechanism

Books and greetings cards often use moving mechanisms to make them more interesting. Moving mechanisms are made using stiff materials that do not bend, such as card, plastic or metal. The finished object should work smoothly and look attractive.



## Glossary

<b>lever</b>	A mechanism consisting of a bar that moves around a fixed pivot.
<b>linkage</b>	A mechanism consisting of two or more bars joined together by pivots.
<b>mechanism</b>	A system of components that work together in a machine.
<b>pivot</b>	A fixed point on which something turns or balances.
<b>slider</b>	A mechanism consisting of a slider and slider guide that moves in a straight line.

