Lever - What is a lever?

Fact

- A lever is a simple machine that has two parts. It has a strong, long bar that can be flat or rounded and it doesn't bend. And the bar needs something for it to push against or pivot on. This is called a fulcrum.
- You push one end of the bar under the thing you want to move and put the fulcrum down on the ground underneath it. Then you apply force on the other end of the bar by pushing down on it. That makes the bar pivot or push on the fulcrum, which raises the end of the bar under the object to lift it.

Do you know

- When you use the handle on a spoon to pries open a lid from a tin the edge of the tin is the fulcrum for your spoon lever.
- A seesaw is a lever. You sit on the bar, which rests on a central stand or fulcrum.
- Scissors are a pair of levers and so is your jaw. Where the scissors join and where your top and bottom jaws join is the pivot.
- The closer the fulcrum or pivot point is to the weight the less force you have to use and the easier it is to lift the weight.

Experiments you can do

Make a lever

What you need:

A ruler

2 rubbers.

What you do:

Place one rubber on the table it will be the fulcrum – the pivot point. Lay the ruler over the rubber to be the lever (it will look a bit like a seesaw). Put the other rubber on one end of the ruler then add some force. Bring your hand down on the end of the ruler sticking up in the air.

What happens?

The force of your hand on the end of the ruler makes it pivot on the fulcrum. That makes the other end of the ruler fly up which makes the rubber go flying into the air.

Other Investigations

Use the ruler and the rubber to help you lift other objects.

Place a book on the table.

Slide one end of the ruler under the book and push a rubber in close to be the fulcrum. Gently push down on the other end of the ruler so that it pivots on the rubber and lifts the book.

What else can you lift with your ruler lever? (make sure it's not too heavy or it might break the ruler.)

Jokes

Knock knock

Who's there

Levers

Levers who

Levers alone (leave us alone)