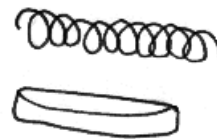


Suzy's World

Spring - How do springs and rubber bands work?

Fact

- Both springs and rubber bands have a springy or elastic force.
- When you pull or stretch springs and rubber bands they stretch out longer.
- When you let go of the stretched spring or rubber band they spring back into shape.
- Scientists say that springs and rubber bands have a potential elastic energy, which means they need a pulling force to stretch them out of shape and they have the potential to spring back into shape.
- A closed coil spring works like a rubber band. When you pull it out of shape it springs back into shape.
- An open coil spring works in the opposite way. It is already stretched and when you push it closed it tries to spring open again.



Do you know

- Rubber bands are made from latex, which is collected from rubber trees. The rubber tree gets cut on an angle and the white juice called latex dribbles out of the cut into a cup. Latex is processed to make, tyres, balloons, sneakers, gumboots and of course rubber bands.
- A closed coil spring is found on a trampoline and a slinky, it can also be used to measure forces, like weight.
- An open coil spring is used in ballpoint pens, mattresses and weighing scales.

Experiments you can do

Make your own weighing machine with a rubber band (with the help of a friend)

What you need:

A rubber band (fairly strong, thick one)

A ruler

A piece of string

A clean empty yoghurt pottle

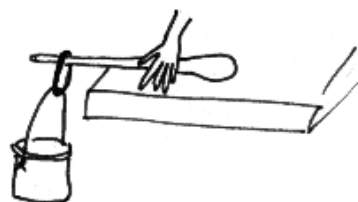
A wooden spoon

Small things to weigh

What you do:

Measure the length of your rubber band lying flat without stretching it at all. Get an adult to pierce two holes in either side of the pottle. Tie one end of the string to one side of the pottle. Thread the string through the rubber band then tie the string to the other side of the pottle. Have a friend hold the wooden spoon so it hangs over the edge of the bench or table. Hang your weighing machine over the spoon and place your first object in the pottle. (Try stones, small toys etc) Use the ruler to measure how much the rubber band has stretched.

Keep a record of your results on a chart. Note down the items that you weigh and how much the rubber band stretched.



Suzy's World

Continued... How do springs and rubber bands work?

Other Investigations

Look at the spring in the bottom of a torch or a ballpoint pen. How are the coils wound? Would the pen work the same if there were less coils in the spring?

Can you think of any other ways that springs are used? (Maybe on toys, on vehicles etc) Which type of spring is used for the job?

Sayings

Spring has sprung, the grass has ris', I wonder where the birdies is?

The birdies on the wing.

How absurd the wing is on the bird.