



DINO'S DYNAMOS Experiment

Building Bridges...

What you need:

- Two Heavy Books of equal size
- Piece of Card (A4)
- Plastic lid from jar
- Lots of paper clips



Step 1. Place two books on a table with a gap in-between about the size of your hand.

Step 2. Balance the card on top of the books so it covers the gap making a bridge between the two books.

Step 3. Place the plastic lid on top of the paper over the gap. Add paperclips to the lid. How many does it take to collapse your bridge?

Step 4. Remove the lid and this time make a different bridge by wedging the paper in between the two books to create an arch.

Step 5. Place the plastic lid on top of the paper over the gap on your new bridge.

Step 6. Add paperclips to the lid. How many does it take this time to collapse the bridge?



DINO'S DYNAMOS Experiment

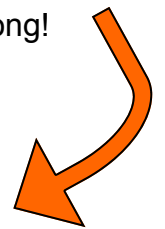
Explain the experiment!

Bridge number 1 is flat and has nothing to support its sides so it collapses easily

When the card is arched like on the second bridge, the weight is passed along the card and into the heavy books at the sides. Because the weight is shared between card and books, the bridge can support more weight.

FACT! The Forth Rail Bridge was built nearly 120 years ago!

FACT! The largest bridge in the world is the Akashi-Kaikyō Bridge, also known as the Pearl Bridge in Japan. It measures 1,991 meters in length, that's over 1 mile long!



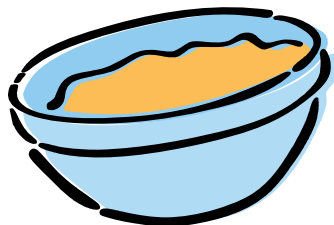


DINO'S DYNAMOS Experiment

Make Your Own GOO!

What you need:

- Cornflour
- Water
- Plastic tub
- Tablespoon
- Optional food colouring



Step 1. Add ten heaped tablespoons of cornflour to your plastic container. Add a few drops of food colouring.

Step 2. Add ten tablespoons of water into your tub and mix together.

Step 3. Continue adding small amounts of water and mix together until it feels a bit like custard.

Step 4. Test your goo! Try to grab a piece and roll it into a ball. Hit it with a spoon, or poke it with your finger. How does it feel?



DINO'S DYNAMOS Experiment

Explain the experiment!

Cornflour and water mix to make a substance with strange properties. When you hit it quickly it feels hard, but when you touch it slowly it is soft and gooey.

It is called a non-Newtonian (said new-tone-e-an) fluid. When you hit it all the water is squeezed out leaving a hard solid behind. If you move slowly through it, the water stays in making it nice and slippy.

FACT! If you are caught in sinking sand the best thing to do is to lie on your back and float. Then you should be able to slowly swim to the edge.



Did you know? Isaac Newton was a famous scientist who discovered lots about the world. He was the first to discover the force of gravity. Some say it was when he saw an apple fall from a tree!

He also invented the telescope and a lot of mathematics.

