### **Bridge Over Untroubled Water!**

#### What do I need:

- Two glasses
- Toilet roll
- · Food colouring (optional)



#### How do I do it?

STEP1 - I love to start this experiment off by asking: "how can you get the water from one glass to the other - without touching either glass?"

STEP2 - Here's the 'trick'. Tear off a roughly one metre long strip of toilet roll and fold and roll it till you get a sausage shape, as shown.

STEP3 - Carefully put it into the glasses as shown. You didn't touch the glasses so this counts!

STEP4 - Watch as the water slowly rises up and swaps between the glasses! This will take a little while so don't sit and watch the whole thing! (The food colouring is just so you can the exactly what's happening and so it looks extra awesome!)





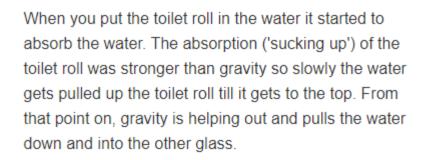




# What's going on?!

Sublines

If you've been paying close attention (you have, right!) you'll have noticed that only around half the water has made it across!







So how come all the water doesn't make it across? Well, once there is some water in the previously empty cup the same thing can happen in reverse! That water could be absorbed back to the other side so when there's an equal amount of water in each cup we say that it's reached 'equilibrium'!







## More Fun Please - Experiment like a real scientist!

- What difference does adding no food colouring make? Why?
- How tall a glass would this work on? Give it a go!



