

## An Indestructible Sandwich Bag?

Next time you're making your packed lunch take an extra couple of minutes and have a go at this outstanding science experiment! All you'll need is an extra sandwich bag (this one won't be any use to you by the time you're done!) and a couple of spare pens!



### What do I need:

- Sandwich bag
- Several pens or pencils (they don't have to be matching!)

### How do I do it?

**STEP1** - Fill your sandwich bag around three quarters of the way full with water and do it up!

**STEP2** - Put your first pen through your (water-filled) sandwich bag and out the other side. As long as you do this slowly and gently then you should have managed to stay dry!

**STEP3** - Just to prove it wasn't a fluke and to make your experiment look extra cool put the rest of the pens and pencils you have through your bag. You shouldn't lose more than a couple of drops of water!

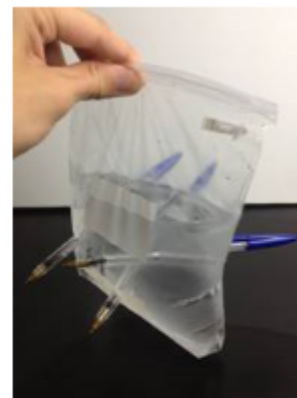


### What's going on?

If you haven't started yet make sure to ask a child (or an adult!) what's going to happen when you stick the first pen through the bag? Almost everyone thinks that the bag is sure to leak!



You now know that it doesn't but why not? Well, what happens when you take the pens out? (You might want to stand over a sink for this bit!) As soon as you remove the pens you create a space and the water comes out. But with the pens still in there's no room for the water to squeeze out as the plastic sandwich bag stretches around the pens, forming a tight seal!



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

- Is it just pens that this will work for? How about pencils? Scissors? Chopsticks?
- What difference does putting more or less water in the bag make?
- Does it matter if your sandwich bag is open or closed?