

Science@Home

To support children's scientific learning outside of school, each month, I'll be releasing a simple experiment that can be undertaken at home by families. March's experiment is entitled 'The Empty Bottle'.

This is a simplistic science experiment however don't let that put you off - it's really cool and all you need is a sheet of paper and an empty drinks bottle. Let's do this!

What do you need:

- A plastic bottle
- A sheet of paper



How do I do it?

1. Tear off a small piece of paper and scrunch it up into a ball so that it fits into the mouth of your bottle!
2. Lay your bottle on its side and put the scrunched up piece of paper into the mouth of the bottle, as shown!
3. Here's where it gets fun! Challenge someone to blow the piece of paper into the bottle. Try it – what happens?



What's going on?

This is all to do with Bernoulli's principle - he's one of those scientists that everyone's heard of but by no means everyone can remember what he said!

Bernoulli noticed that air has a lower pressure when it's moving more quickly. As you blow into the mouth of the bottle the air is moving fastest - so is at the lowest pressure. Inside the bottle the air is moving more slowly - so a higher pressure. As the pressure is higher inside the bottle than in the mouth this pushes the paper out!

Taking your experiment further:

What happens if you don't use a piece of paper?

What else could you try instead? Is it possible?

How can you blow the paper in?

How does using different shapes and sizes of bottle change the experiment?

If you have any questions or want to share a photo of your colourful creation, I'd love to see it!

Email me at: newzealand@lainesmeadprimary.co.uk

Happy experimenting!

Mrs Smith