

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. January's experiment is entitled 'The Impossible Balloon Experiment'.

What do you need:

- A plastic bottle (or 2!)
- A balloon (or 2!)
- A pair of scissors



How you do it:

1. First off we'll need to build this contraption! Take the lid off your bottle and put the balloon inside.
2. Pull the edge of the balloon round the neck of the bottle to make a seal, as shown.
3. Now you're ready to rock n roll. The challenge is to blow the balloon up. Simple? Give it a try! You can blow as hard as you like but you won't be able to blow the balloon up much!
4. Here's the secret! Use your scissors to make a small hole in the bottom of the bottle! Now try again! Your balloon should puff right up!



What's going on?

This one's all to do with air pressure. When you start to blow up the balloon, of course it gets bigger. But when there's no hole in the bottle the rest of the air in the bottle starts to get 'squashed'.

There's the same amount of air in the bottle but less and less space for it so the pressure builds up and you can't blow hard enough to inflate the balloon. As soon as you've got that hole the air can escape, the pressure doesn't build and your balloon will blow right up, into a lovely sausage shape.

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