Flying Ping Pong Balls

Flying ping pong balls? Why the question mark? Must be time for the next science experiment! In this one we'll be making table tennis balls fly through the air, or not! We might even learn a thing or two about Bernoulli while we're at it!

What do I need:
- A Funnel
- A ping pong ball or two
- A straw

How do I do it?

STEP 1 - First we'll prove what we already know, you can blow a ping pong ball in the air! Pop a ping pong ball on top of a straw (those bendy straws are awesome for this) and blow through the straw smoothly and quite hard - the ping pong ball will levitate, somewhat beautifully!

STEP 2 - That makes sense - You can obviously blow hard enough to lift up a ping pong ball! Now, put the straw down, tilt your head back and make that ping pong ball fly above your head!

STEP 3 - Now for the weird bit! This is a great chance to get a volunteer to help out! Pop the ping pong ball into the funnel! Lift the funnel up (but keep it vertical) and blow up through the funnel to blow the ping pong ball out!

STEP 4 - **WARNING:** Don't keep doing this 'till you hyperventilate - it's actually impossible!

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. The air below the ping pong ball is moving more quickly than the air above it and so the air below has a lower pressure. Air naturally flows from high pressure to low pressure and it's this change in pressure that's 'sucking' the ball back into the funnel! Pretty cool, huh!

More Fun Please - Experiment like a real scientist!

- How can you blow the ping pong ball out? (It is possible!)
- Does the size or shape of the funnel used make a difference?
- Psst...to blow the ping pong ball out, simply blow sharply down and across the top of the funnel. The ball will shoot out! I just couldn't keep it to myself! Why does this work, though?