



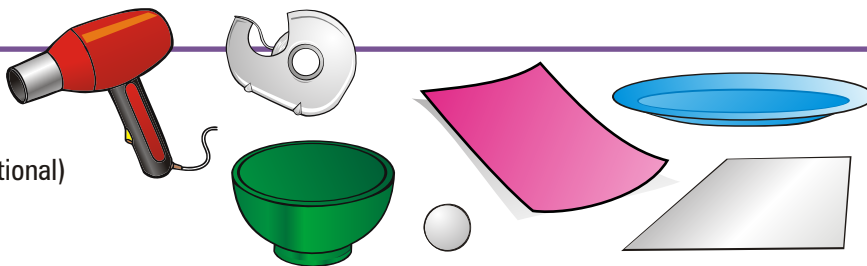
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# Ping Pong Launcher



## What you need:

- Hair dryer
- Large bowl
- Paper
- Ping pong balls
- Tape
- Plate
- Clear acetate sheet (optional)



## What you do:

**Step 1:** Cut two pieces of tape.

**Step 2:** Roll the paper or clear acetate sheet into a long tube large enough for a ping pong ball to fit through. Test the width of the tube by placing a table ping pong in the top and letting it fall through. Adjust the size by loosening your grip until the ball slides through.

**Step 3:** Once it is the right size, use the pieces of tape to secure the tube.

**Step 4:** Place the table ping pong on the plate and put the bowl next to it.

**Step 5:** Place the bottom of the tube on top of a ball and angle the top of the tube towards the bowl. Turn the hair dryer on and let it blow across the top of the tube. Can you make the ball jump out of the tube and into the bowl?



## What's going on:

This experiment provides an excellent illustration of Bernoulli's Principle. Air takes up space, and it is everywhere around us. The air around us pushes on us creating air pressure. Bernoulli's Principle states that when air moves rapidly, the pressure is low. The air from the hair dryer moves quickly, so the air pressure drops at the top of the tube. The air pressure at the base of the tube is much higher, and so it pushes the table ping pong up the tube towards the lower pressure!

## Now try this:

Challenge a friend to try this air pressure trick, and compete to see who can get the most ping pong balls into the bowl! Try making larger sized tubes. Does the ball still go up? Try using the cold setting on your hair dryer. Does it change the effect?

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