

'Impress my family' science experiment 1

Air pressure in a bottle or how to get my brother soaked.

What you need:

Plastic bottle (2 l) including lid

Tray or sink

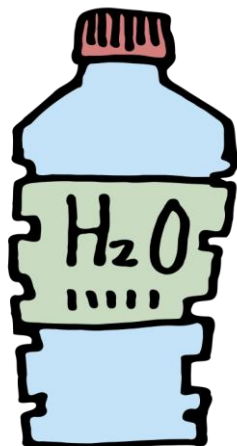
Pin

How to do it:

1. Fill the bottle with water. Close the lid tightly.
2. Use pin to make several holes in the plastic bottle.
3. Place bottle in tray or sink (or outside).
4. Ask: Why does the water not run out?
5. Now open the lid (or let your brother do it). Watch what happens.

What's going on?

When the lid is tightly on the bottle is filled with water and air (a gas that we cannot see). The water cannot flow out as this would create a partial vacuum in the bottle. The only way, water can move, is when either air or water is added to replace the water that has left the bottle. This only happens, when the lid is opened and air can flow in freely. The water will now spill out of the pin holes.



See the **video** for help and explanations: <https://vimeo.com/411965592>