

Dropper

Apparatus

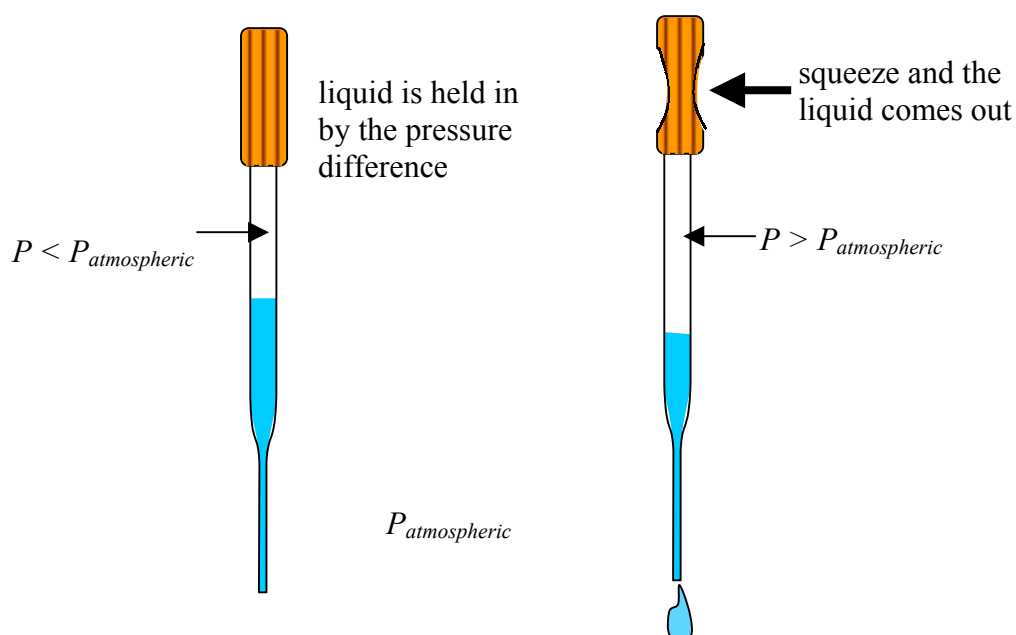
eye-dropper or Pasteur pipette with rubber teat, cup of water

Action

The students use the dropper to pick up some water. They should do so, and then consider what they did in order to pick the water up, and why the water stays in the dropper or pipette when lifted out of the glass.

The Physics

When you squeeze the rubber top on the dropper you squeeze the air out. Then when you put the tip into the liquid and stop squeezing the top, the low pressure inside sucks up the liquid. In fact it is the higher pressure outside the dropper, in the liquid, that pushes the liquid up into the dropper. The liquid is held in by the lower pressure in the tube than the external atmospheric pressure.



Accompanying sheet

Dropper

Use the dropper to pick up some liquid.

What holds the liquid in the dropper?

Explain why it doesn't fall out.