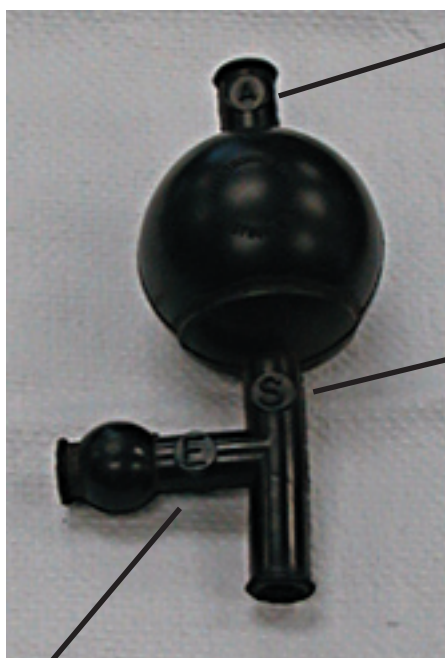


In the biology lab, we use pipettes to measure small volumes of liquid. A pipette is a glass or plastic tube with markings indicating the volume of liquid contained. Each pipette has a maximum volume - usually one, five, or ten milliliters. Choose a pipette whose maximum volume is close to (but greater than) the volume you would like to measure.

Pipette bulbs like the one shown below control the liquid level in the pipette. Never use your mouth to draw liquid into a pipette.



Use this button first to Add vacuum to the bulb.

Then, use the Suction button to draw liquid into the pipette.

Finally, press the Exhaust button and allow liquid to drain from the pipette.

Step-by-step Instructions

Don't rush. The most common error in pipetting is to draw liquid into the bulb during the draining step by pressing the Suction instead of the Exhaust. If you do this, it will take considerable effort to empty the bulb.

1. Carefully insert the pipette into the receiver on the bulb. (See the photo at top right.)

2. Add vacuum to the bulb.

With the pipette carefully inserted and vacuum added to the bulb, this student is ready to pipette.



3. Place the tip of the pipette under the surface of the liquid you want to pipette.

4. Use the Suction button to draw liquid into the pipette. Keep the tip below the surface of the liquid.

5. Move the pipette to the container to receive the liquid. Press the Exhaust button, and allow the desired amount of liquid to drain from the pipette.

6. If you lay the pipette down, it might become contaminated. If you must lay the pipette on the bench, empty it first, and place it on an absorbant towel.



In this experiment, the student has filled the pipette to zero (read from the bottom of the meniscus). Then, she delivered about 6.6 ml. Whenever possible, you should measure between two marks on the pipette, rather than filling the pipette to the desired volume and emptying.