

Using Pipettes

Pipettes are useful for adding small, exact amounts of liquid to a container. However, there are some commonsense rules for usage:

- Avoid self-contamination!
 - ♦ Never allow the liquid in a pipette to rise up to the cotton.
 - ♦ For the same reason, do not rest the pipette on a dirty surface.
- Avoid cross-contamination! There are two sources of pipette cross-contamination:
 - ♦ A pipette that is used to extract one liquid must never be used to extract another! Doing so will contaminate pipette and liquid. For example, never remove a pipette from EB1.0 and insert it into EB2.0; similarly, never use a pipette to extract Mercuric Thiocyanate Solution and then use it to extract Ferric Ion Solution.
 - ♦ Watch that tip! When using a pipette to add liquid X to liquid Y, do not allow the pipette tip to touch liquid Y or its container.
- When using a pipette to extract river water from the large mason jars, hold the pipette such that its tip is half-deep in the water. If the pipette sucks from the bottom of the jar, it will pick up silt and sediment, which may interfere with the test.
- For the most accurate results, avoid using the last milliliter of the pipette (ie. the bottom inch or so). As you have probably noticed, several drops of liquid get stuck in this tip, shortchanging your measurement. Therefore, a good rule of thumb is to fill the pipette with 1mL more than you need. For example, if you only need to measure 2mL of liquid, fill the pipette with 3mL, and then drain out 2 mL. This way, you avoid the problem of the tip. (If you wish to use the last milliliter, the normal bulb can be used to blow the remaining drops out of the tip.)
- For many jobs, it may be faster to pipette with your thumb, rather than with a bulb. In this case, the simplest way to release liquid is to grasp the pipette in your fist (like hitchhiking), and use your thumb to firmly cover the top of the pipette.
- Remember that the concept of meniscus applies to pipettes, too!
- Don't be clumsy! A large pipette sticking out of a small bottle is asking to get knocked over.
- The pipettes are designed to be disposable, so, unfortunately, there is no effective way of cleaning and reusing them.
- There are several good reasons not to use your mouth to suck liquid into a pipette.