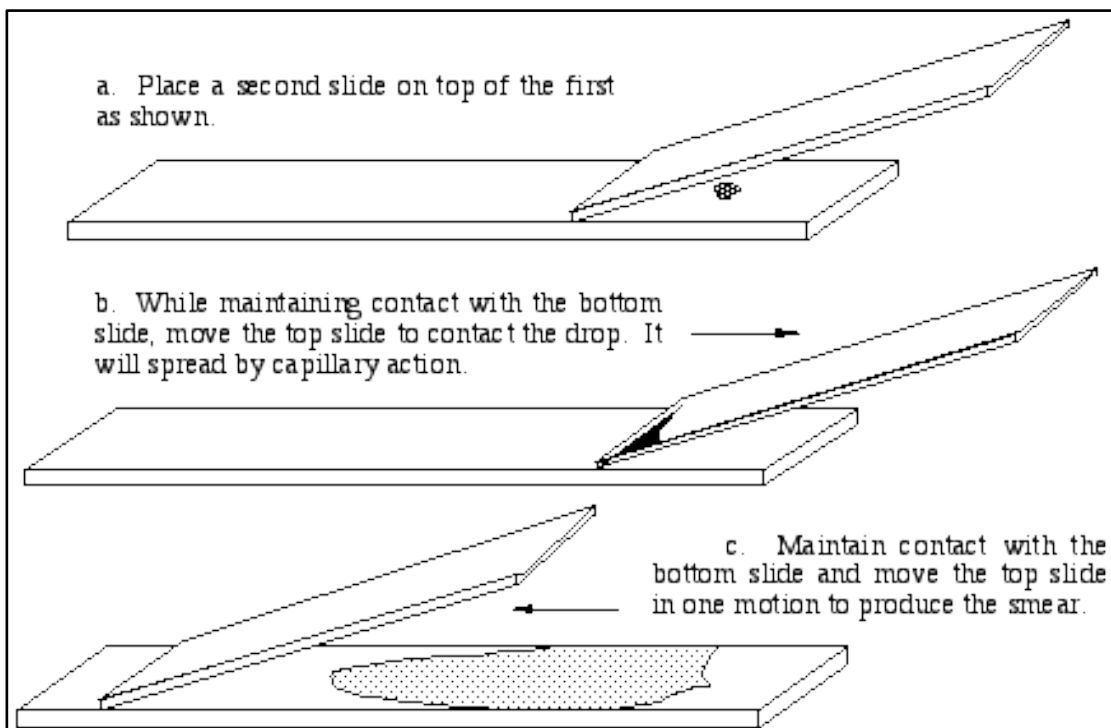
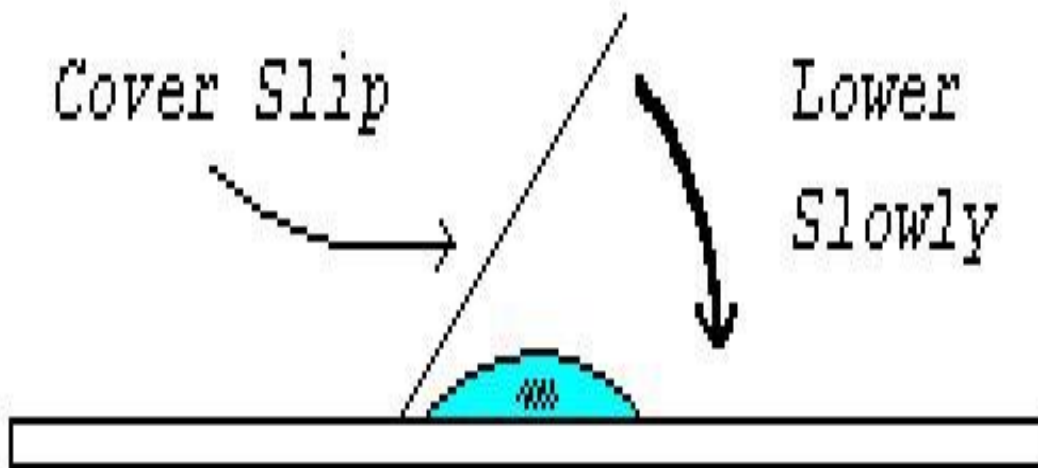


## How to Focus Your Microscope:

1. The proper way to focus a microscope is to start with the lowest power objective lens first and while looking from the side, crank the lens down as close to the specimen as possible without touching it. Now, look through the eyepiece lenses and focus upward only until the image is sharp.
2. If you can't get it in focus, repeat the process again once the image is sharp with the low power lens, you should be able to simply click in the next power lens and do minor adjustment with the fine adjustment knob.
3. If your microscope has fine focus adjustment turning it but should be all that's necessary. Continue with subsequent objective lenses and fine focus each time.
4. If you must carry a microscope, always hold it with one hand on the arm and the other under the base.
5. Always lower the stage or raise the objective all the way before placing a slide under the objective, observe the slide from the side, not looking through the eye piece.
6. Never use the coarse focused adjustment when on the medium or high power objective. Focus on low power first and then rotate the higher power objective in to place. Make final focus adjustment with the fine focus adjustment.
7. Both eyes should be open when viewing through the microscope; this prevents eye fatigue, which occurs when the non-viewing eye is kept closed. Keeping both eyes open does take some practice, but it is highly recommended. Also, you should never let your eye touch the ocular lens. If your eyelashes touch the lens you are to close. Always remove eyeglasses when viewing through a microscope. If your eyeglass lens touches the microscope it may get scratched.

### **Making a wet mount slide Procedure:**

- 1.**Place a clean slide on a paper towel on the lab table. Handle slides at the ends, not the center, to avoid getting fingerprinting in view area of the slide.
- 2.** Place a drop of water on the center of a clean dry slide.
- 3.**Using the tweezers, place the specimen in the middle of the drop.
- 4.** While holding the cover slip up right carefully place one adage of the cover slip next to the water hold the cover slip by the edges to fingerprinting. Set one edge against the slide end lower it until it contact the liquid.
- 5.** The liquid should spread across the whole area of the cover slip solely lower the upper edge of the cover slip in to water the objective is to minimize or eliminate air bubbles under the coverslip. You might find it helpful to use one tooth pick to hold the lower edge in place, while using anthers to carefully lower the slip in to place.
- 6.** An absorbent towel can be placed at the edge of the cover slip to draw out some of the water, further flattening the wet mount slide.
- 7.**Never view a slide without a coverslip. The coverslip protects the objective lens from the liquid on the slide.



**Figure 1: wet amount method**

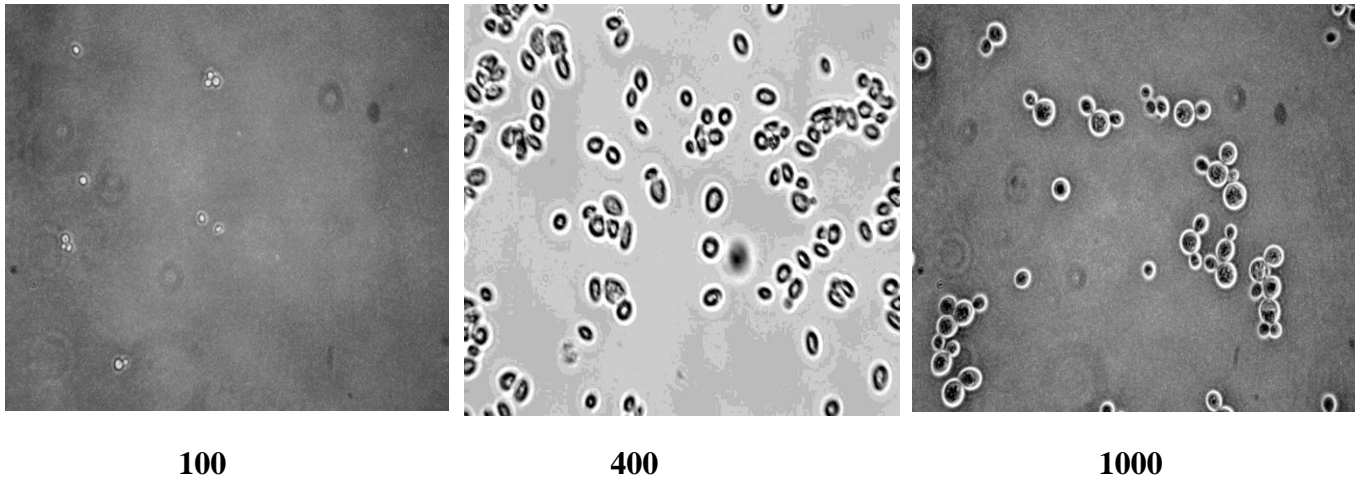


Figure 2: (*Saccharomyces cerevisiae*) with different magnification power (100,400,100) as show above

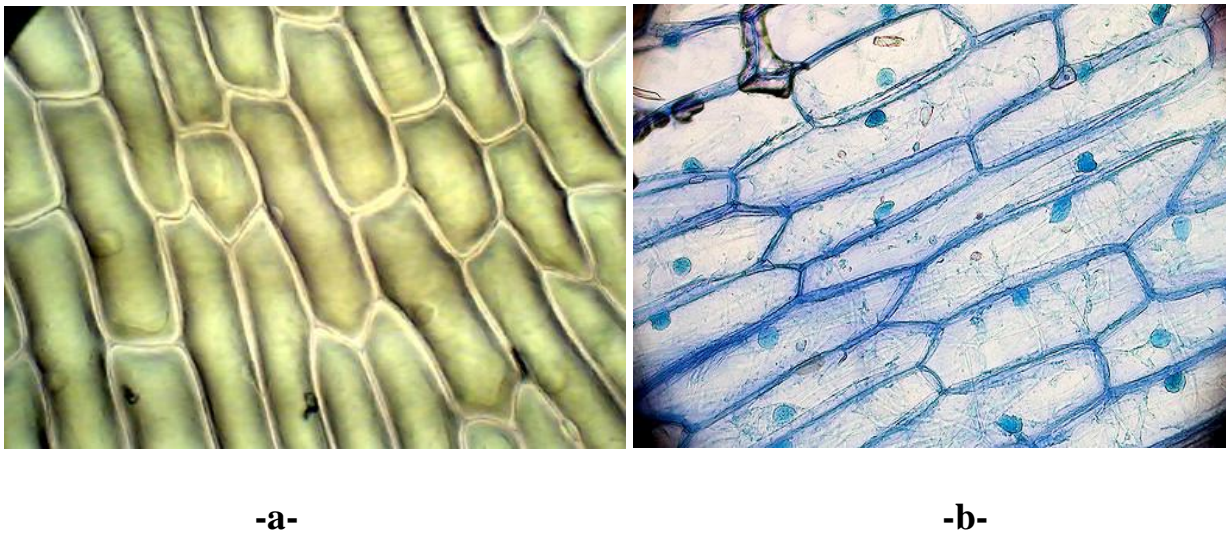
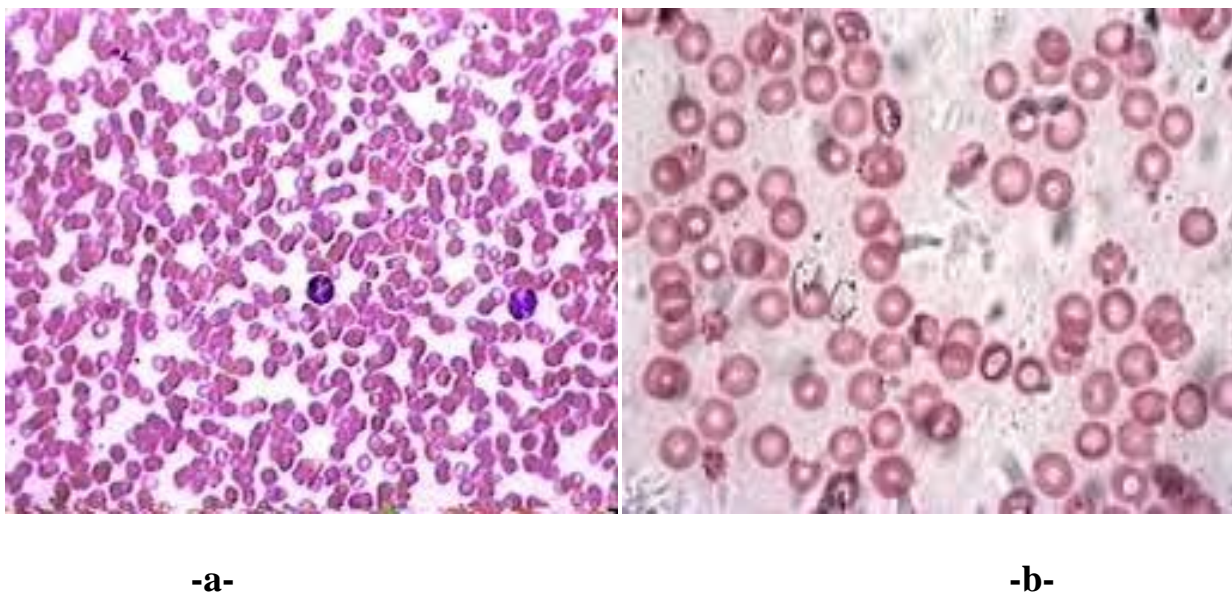


Figure 3: a-(Onion cell without staining)      b- (Onion cell when staining with methylene blue)

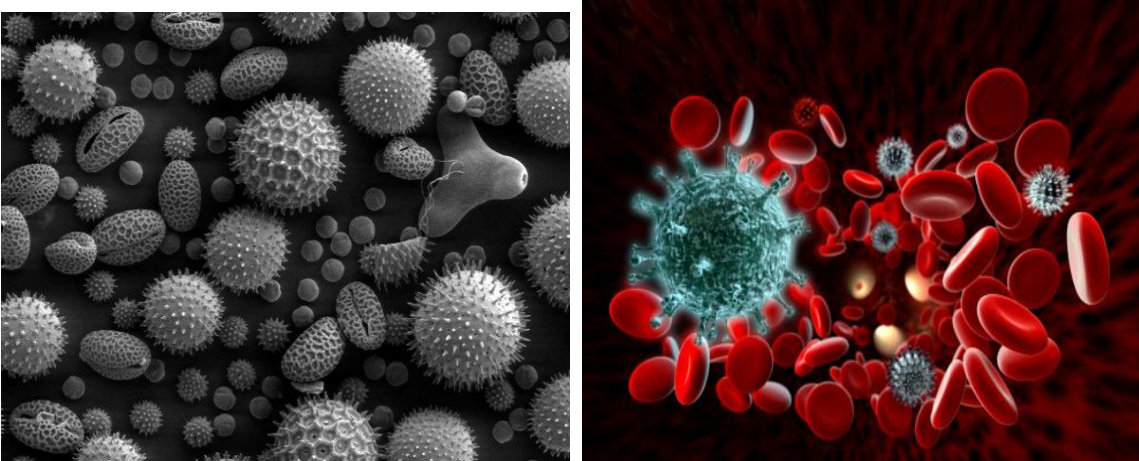




-c-

-d-

**Figure 4:** a. Blood smear showing red blood cells and two white blood cells at 400x.  
 b. Human red blood cells 1000x  
 c. Human white blood cells 2000x. The small dots (red arrow) are *Diplococcus gonorrhoea* bacteria (*Neisseria gonorrhoeae*), each ~0.5 micrometers in diameter. Some of the neutrophils have phagocytosed bacteria  
 d. Red blood cells visualized by scanning electron microscopy



-a-

-b-

**Figure 5:** a. (Viruses under electron microscope)  
 b. (viruses in red blood cells electron microscope)