

Microscope Procedures

Set up the Microscope

1. Place the microscope on the desk in front of you with the stage flat and the legs of the base pointed away from you.
2. Place the light under the stage with the cord away from you be sure the light is on, that it has a blue filter, and that it shines straight up through the hole in the stage.
3. Raise the condenser to its highest position.
4. Open the diaphragm about a third of the way.
5. Watching from the side, rotate the 4x objective into position until it clicks.
6. Still watching from the side, use the coarse adjustment to lower the objective as far as it will go.
7. Look through the eyepiece to check your setup: the “field should appear as a perfect circle, brightly illuminated.

Prepare the Slide (not necessary for prepared slides.)

8. Use a clean dry slide.
9. Preparing the specimen depends on what you are using, but all specimens should be small and as thin as possible. Place the specimen at the center of the slide.
10. Place a small drop of water or stain on the specimen.
11. Gently lower a **cover slip** onto the drop. The liquid should spread out and evenly fill the space between slide and cover slip.
12. Carefully blot any excess liquid. There should be no moisture anywhere except under the cover slip.

To Locate a Specimen visible to the Naked Eye

13. Place the slide on the stage with specimen perfectly centered over the hole.
14. Looking through the eyepiece, raise the tube with the coarse adjustment until the specimen comes into view.
15. Improve the focus with the fine adjustment. Use the diaphragm to adjust light (try first more and then less) until you find the best illumination for this particular specimen and magnification.
16. If you don't find the specimen, repeat in order steps 13, 6, 14, 15. If this doesn't work, check your whole setup (steps 1-7) and try again (steps 13 - 15).

To Switch from 4 x to 10 x

17. Be sure the specimen is perfectly focused under 4x power.
18. The specimen must be exactly in the center of the field. (If there are any empty spaces in the specimen, do not put on e in the center!)
19. Watching from the side, turn the 10 x objective into position. If it looks as though it's going to hit the slide, raise the tube slightly with the coarse adjustment. Then when the objective is in place, lower the tube again until the objective just clears the slide.
20. Looking through the eyepiece, raise the tube slowly until the specimen comes into view.
21. Improve the focus with the fine adjustment.

To Switch from 10 x to 40+ X (Use same procedure as 4 x to 10 x.)

To Locate a Specimen NOT Visible to the Naked Eye

13. Place the slide on the stage. Don't center it – instead, place the right edge of the cover slip directly over the hole in the stage..
14. Looking through the eyepiece, raise the tube with the coarse adjustment until the specimen comes into view.
15. Now, move the slide around, until you see the specimen. (Be careful that the clips don't dislodge the cover slip.) Improve focus with the fine adjustment.
16. If you don't find the specimen, repeat in order steps 13, 6, 14, 15. If this doesn't work, check your whole setup (steps 1-7) and try again (steps 13 - 15).

Putting the Microscope Away

Before putting the scope back in the cabinet:

- A. Remove the slide
- B. Rotate the 4 x objective into position
- C. Lower the body tube all the way down.



