# Using A Compound Microscope

1. Place microscope on a flat surface with the arm of the microscope facing you. Turn on power.
2. Close the iris diaphragm.
3. Click the X10 objective lens (yellow) into position.
4. Place the specimen on the glass slide DIRECTLY under the objective lens.
5. Raise the stage using the coarse focus dial until it is about half a centimeter from the slide (It can’t be made any closer with this objective lens)
6. Focus the specimen by using the coarse focus dial. The stage will move away from the specimen.
7. When the specimen is in focus, use the fine focus dial to obtain a sharp image
8. Adjust the light if necessary by using the iris diaphragm.
9. To increase the magnification, center the specimen in the field of view and make sure it is in focus.
10. Click the X40 objective lens (blue) into position.
11. **Focus using the fine focus dial only!!!!!!!!!!!!!!!**

**Note: The X 4 objective lens can also be used to magnify specimens that don’t require much magnification. When using this lens, follow steps 1 to 8 above.**

## Total Magnification

|  |  |  |
| --- | --- | --- |
| Eyepiece | Objective Lens | Magnification |
| 10 | X 4 (Red) | 40 |
| 10 | X 10 (Yellow) | 100 |
| 10 | X 40 (Blue) | 400 |

Field of View

The field of a view of a microscope refers to the circular area seen when looking down a microscope. For the particular microscopes in the biology lab, the diameter of the field of view for each magnification is given below.

Diameter of field of view

Field of view

|  |  |
| --- | --- |
| Magnification | Diameter of field of view |
| X 400 | 450 um |
| X 100 | 1800 um |
| X 40 | 4500 um |

Note: 1000 um = 1 mm.