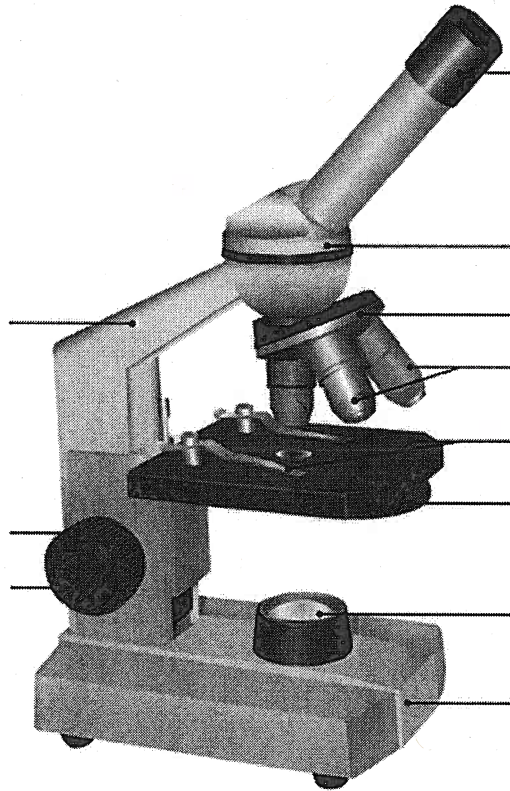


Microscopes 101

Types of Microscopes

Light Microscope: Uses _____ to magnify objects. The lenses bend or refract light to make the object beneath them appear closer. Common magnifications: 40x, 100x, 400x

Parts of the Microscope



Magnification

Your microscope has 3 magnifications: _____, _____, and _____. Each objective will have written the magnification. In addition to this, the ocular lens (eyepiece) has a magnification. The total magnification is the ocular x objective.

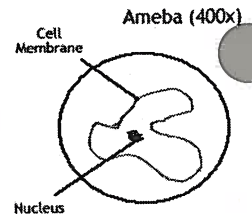
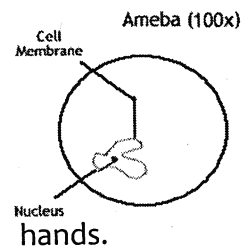
	Magnification	Ocular lens	Total Magnification
Low Power	4x	10x	
Medium Power	10x		100x
High Power		10x	400x

Focusing Specimens

1. Always start with the _____ power objective lens. Use the _____ Knob to focus, image may be small at this magnification. Try moving the slide around until you find something.
2. Once you've focused on Low Power, switch to _____ Power. Use the Fine Focus Knob to refocus. Again, if you haven't focused on this level, you will not be able to move to the next level.
3. Now switch to High Power. (If you have a thick slide, or a slide without a cover, do NOT use the high power objective). At this point, ONLY use the _____ to focus specimens.
4. If the specimen is too light or too dark, try adjusting the _____

Drawing Specimens

1. Use _____ - you can erase and shade areas
2. All drawings should include clear and proper labels (and be large enough to view details). Drawings should be labeled with the _____ and _____.
3. Labels should be written on the outside of the circle. The circle indicates the viewing field as seen through the eyepiece, specimens should be drawn to scale. If your specimen takes up the whole viewing field, make sure your drawing reflects that.



Important Reminders!

- Always carry a microscope with _____ hands.
- Make sure to support the microscope at the base.
- Store microscopes with the _____ objective in place.
- _____ and _____ microscopes.
- Always place your slides back in the slide boxes to be used later.

Troubleshooting

Occasionally you may have trouble with working your microscope. Here are some common problems and solutions.

1. Image is too dark! Adjust the _____, make sure your light is on.
2. There's a spot in my viewing field, even when I move the slide the spot stays in the same place! Your lens might be dirty. Call over your teacher.
3. I can't see anything under high power! Remember the steps, if you can't focus under _____ and then _____ power, you won't be able to focus anything under _____ power.
4. Only half of my viewing field is lit, it looks like there's a half-moon in there! You probably don't have your _____ fully clicked into place.