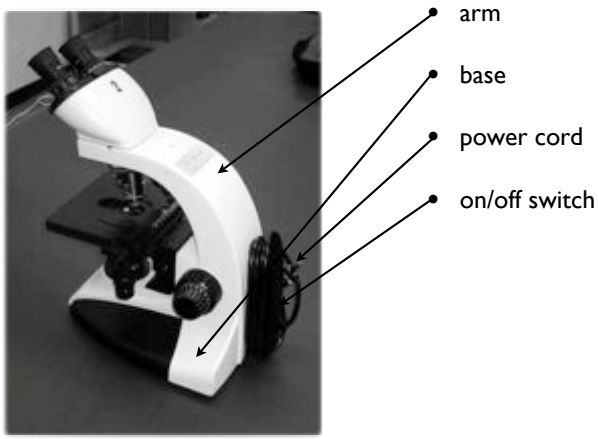
Lab 1

Microscope Use
Cell Anatomy

Microscope



- arm
- base
- power cord
- on/off switch

Microscope

- occular lenses
  - 10x magnification
- rotating nosepiece
- objective lenses
  - 4x, 10x, 40x, 100x
- actual magnification = occular lens x objective lens

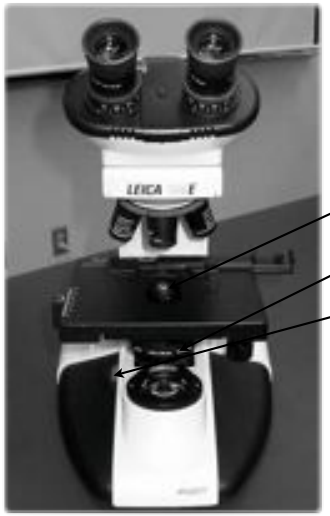
Microscope

- occular lenses
- objective lenses
- stage
- stage clamp

Microscope

- stage controls
- coarse focus knob
- fine focus knob

Microscope



- condenser
- iris diaphragm
- brightness control

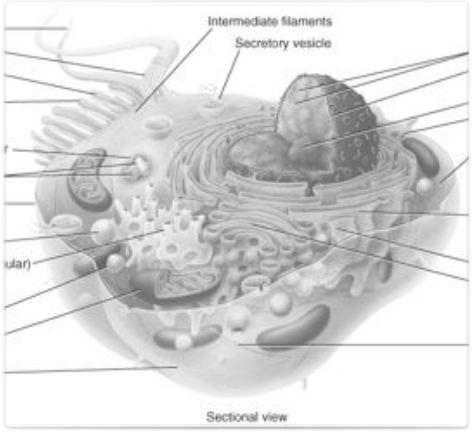
Using Microscope

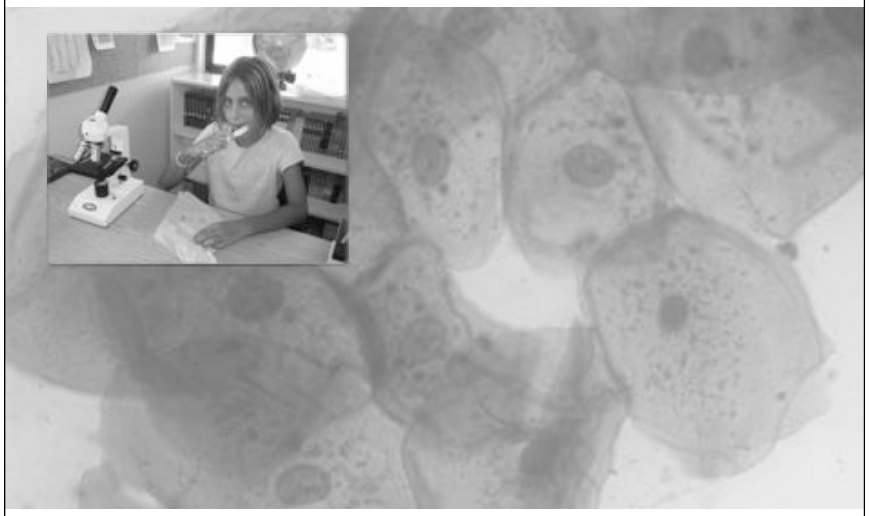
- Carry with two hands: one underneath, one holding the arm
- Clean lenses as needed with lens paper only
- Always start with the lowest power (4X) objective
- Lower the stage completely using the coarse focus knob
- Insert slide; focus on slide using the coarse focus knob
- Move to higher objectives (10X, 40X) as necessary
- Use the fine focus knob only with 10X, 40X objectives
- Do not use 100X objective unless instructed

Putting Away Microscope

- Rotate the objectives to the lowest power (4X)
- Use the coarse focus knob to lower the stage completely
- Remove the slide; clean the stage with kimwipes as needed
- Clean lenses with lens paper only
- Reduce brightness of lamp completely
- Turn off power
- Unplug, wrap, and and secure cord
- Make sure cabinet door is locked

Cell Anatomy



- cell membrane
- nucleus
  - contains DNA
  - nucleolus
- flagella/cilia

Staining Cheek Cells