

# lab I

microscope, drawing, classification, cladistics

# lab basics

- **syllabus**
- **quizzes and hand-ins = 50% of grade**
- **drawings**
  - write name in ink, draw and label in pencil
  - use to study for tests -- better than photographs
  - draw exactly what you see -- it is about observation, not art
  - write info at bottom of picture (magnification, live specimen, etc.)
  - always try to find structures yourself...
    - use TA as a resource, not just quick answers

# microscope

- **light microscope - parts**

- compound eyepiece = 10x magnification
  - for total mag, multiply times the power of the objective
- coarse adjustment -- moves the stage a lot!
  - only use this on low power objective
- fine adjustment -- moves the stage a little
  - you shouldn't need to turn this more than 1 full turn.
  - if you are on high power and you cannot find anything, go back to low power, and find it again, then switch back to high power.
- diaphragm / light

- **dissecting scope**



# taxonomy

- **domain**
- **kingdom**
- **phylum**
- **class**
- **order**
- **family**
- **species**
  - genus
  - specific epithet
- **scientific names vs. common names**

# cladistics

- **groups**

- monophyly
- paraphyly
- polyphyly

- **cladograms**

- outgroup
- plesiomorphies
- synapomorphies
- autapomorphies
- parsimony

