

Lab 02 – 2/3/14
Learning Objectives

By the end of this lab you should understand:

- The principles and operation of a microscope
- The process of creating wet mounts
- The process of locating and identifying cells
- The appearance of eukaryotic cells at different magnifications

Key facts:

- Eukaryotic cells can be visualized with a microscope but not typically with the naked eye
- Prokaryotic cells *cannot* be visualized without advanced microscopy
- Eukaryotic cells are usually identifiable by their nucleus especially when stained

Key skills:

- Use a microscope to visualize wet and dry slides
- Draw objects such as cells visualized using a microscope

Lab Procedure:

- Lab Quiz
- Manual: Lab #2
 - Microscope Use
 - Wet mounts
 - Human cheek cell
 - Others (if available)
- Manual: Lab #3
 - Dry mounts (Human tissue slides)

Sample lab quiz questions:

- True/False: Prokaryotic cells have nuclei
- What organelle(s) of average cells are most visible under the microscope?
- If a microscope lens is a x10 magnification and the eyepiece is also x10 magnification what is the actual magnification?
- Which focus knob should be used when at high magnification?
- Why do we treat wet mounts with methylene blue?
- Name one thing that would be difficult or impossible to visualize using a light microscope and explain why.