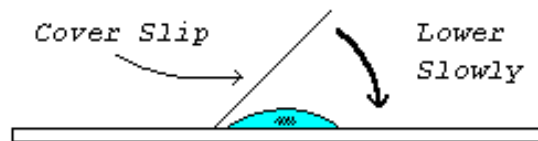


Examining Marine Dinoflagellates, Diatoms, and Protozoans

Introduction: Today we will be examining 3 groups of microorganisms. These microorganisms are living specimens and will be moving around quickly. Patience will be needed. You may also need to take multiple samples from the same test tube.

Directions

- 1) Take your microscope slide over to the side table where you will obtain a sample of a microorganism.
- 2) Using the pipette, obtain a sample from one of the 4 options. Add 1-2 drops to your slide and take your sample back to the lab table.
- 3) Gently place a coverslip over the drop of water as seen in this picture.



- 4) Carefully place the slide on your microscope and ensure that it is secured with the slide clamp.
- 5) Make sure the microscope is at the **lowest objective lens setting** (usually red) before turning it on.
- 6) Adjust the clarity of your image using the adjustment knobs on the side of the microscope (2 knobs: coarse & fine). NOTE: I usually try to focus on the corner of the coverslip. Then I know that I am close enough with the lens.
- 7) Increase the objective lens **one level at a time** (usually from red to yellow to blue). Try to use the highest magnification possible to view the bacteria. You will see the organisms swimming in the sample!
- 8) Once your image is clear and visible, complete the following in the spaces on the back of this sheet:
 - a. **Identify the type of bacteria you are looking at**
 - b. **Draw/sketch what you see (do your best!)**
 - c. **Record your observations (shape, color, movement, size, #, etc)**
 - d. **Calculate the magnification you used (ocular x objective lens)**

9) Once you are finished with the sample, rinse the slide off with water and obtain the next sample. Do this until you have looked at all 4 samples.

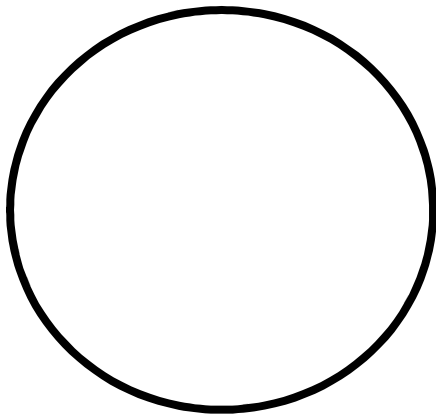
NOTE: When switching slides, ALWAYS start on the lowest magnification.

10) After completion of your data collection, clean all materials thoroughly. Spreaders may be discarded in the trash and slides and cover slips washed in the sink. Ensure that your microscopes are returned to the lowest objective, and turned off to save power.

RESULTS

DRAWING

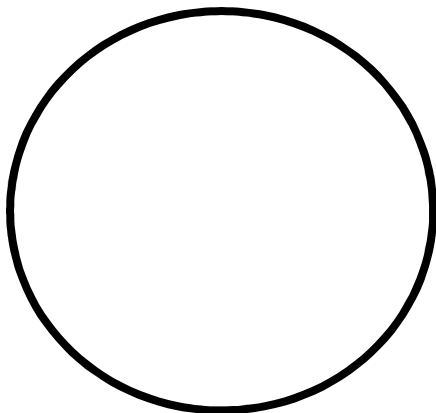
OBSERVATIONS (see #8)



SPECIMEN NAME _____

DRAWING

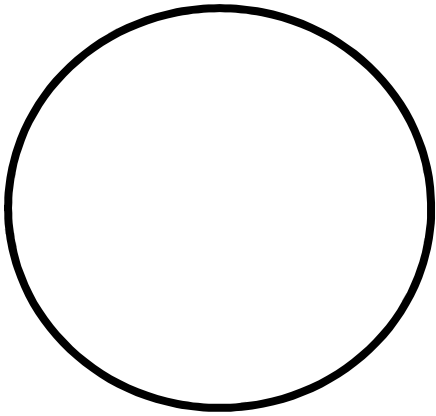
OBSERVATIONS (see #8)



SPECIMEN NAME _____

DRAWING

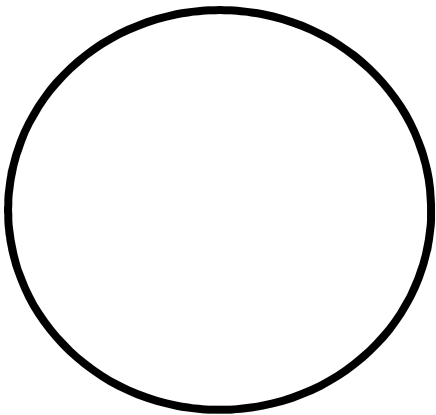
OBSERVATIONS (see #8)



SPECIMEN NAME _____

DRAWING

OBSERVATIONS (see #8)



SPECIMEN NAME _____

Post-Lab Questions:

- 1) Which specimens were producers? Which were consumers? Explain how you know! (Any characteristics)

- 2) What were some common observations you saw in each specimen? Where were some major difference?