

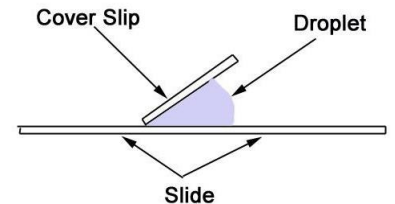
Lab: "Life in a Drop of Pond Water"

HONORS BIOLOGY: UNIT 2

Background: In this lab you will observe the amazing variety of life in a single drop of pond water. You will also learn the correct procedure for making a laboratory drawing identifying a specimen under the microscope.

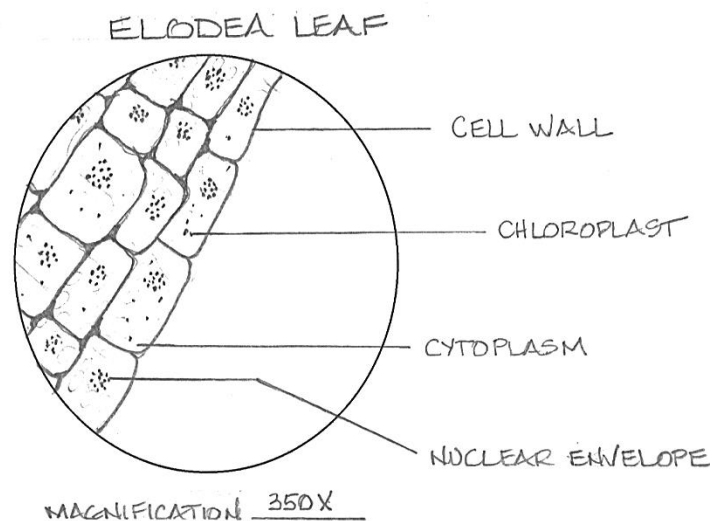
Procedure:

1. Start by creating a wet-mount slide of a sample of pond water provided by the teacher. (see diagram to the right)
2. Start by observing your slide under low power. Once you have it focused, move to medium power and observe your specimen. Look for movement.
3. Switch to high power and focus on one particular organism. Write down a minimum of 5 observations of your specimen in the space provided on page 2. (e.g. size, color, movement/no movement, shape, appendages, etc.)
4. Use the Guidelines for preparing a laboratory drawing below and draw your organism on the following page. Use color in enhance your drawing.
5. Use the Pond Water Identification site on a Chromebook to see if you can identify your organism: <http://www.microscopy-uk.org.uk/index.html?http://www.microscopy-uk.org.uk/pond/index.html>
6. Once you have completed your first drawing try and identify other microscopic organisms in your sample. Prepare another slide if necessary.
7. Repeat steps 1-5 and draw a different organism you see under high power on page 3.
8. When you have completed this please clean your slide and microscope and return microscope to the front of the classroom. *Note: Make sure to leave the microscope on low power when you are finished.*
9. Answer the Conclusion questions.

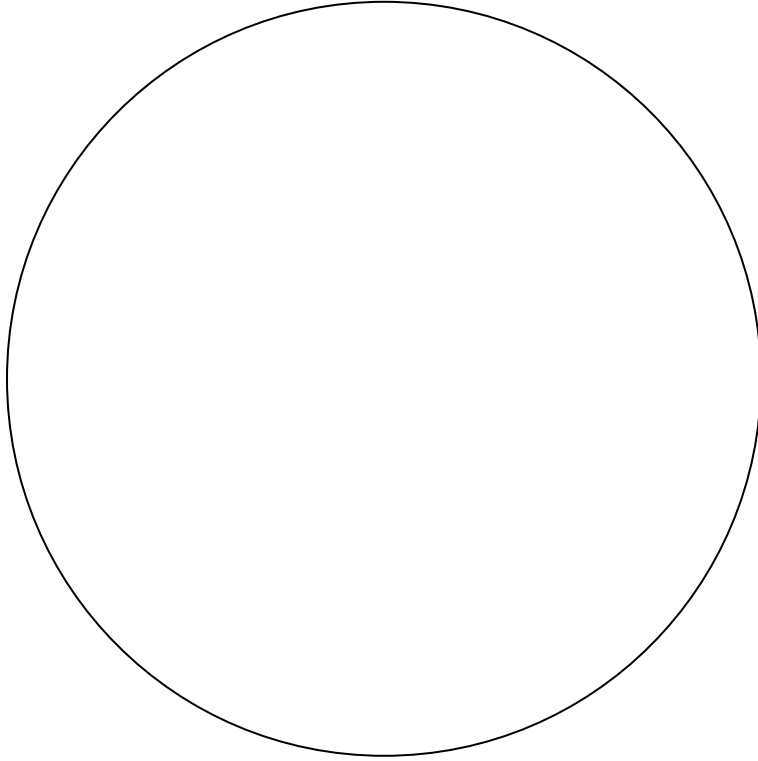


Guidelines for Preparing a Laboratory Drawing

1. Draw circle to represent field of view in the microscope
2. Use a ruler to draw label lines
3. Label lines should point to the center of the structure being labeled
4. Do not write on the label lines
5. Print all labels horizontally
6. Label the right-hand side of the drawing, if possible
7. Do not cross label lines
8. Include magnification
9. Include a Title (what you are looking at)
10. Drawings should be clear and accurate as possible

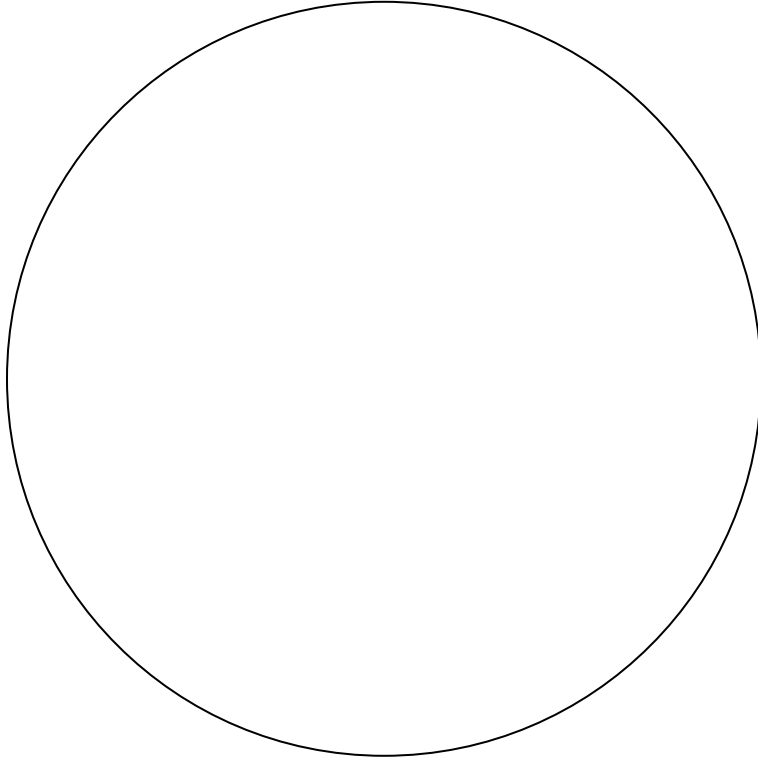


MICROSCOPIC DRAWING #1



OBSERVATIONS: *(list a minimum of 5)*

MICROSCOPIC DRAWING #2



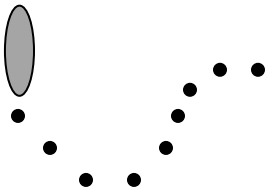
OBSERVATIONS: *(list a minimum of 5)*

CONCLUSION QUESTIONS:

1. What did you see under the microscope that would make you believe the microscopic organisms you looked at were considered living things? Explain

2. What generalizations can you make concerning the organisms you observed under the microscope?

3. Did any of the organisms you observed move? Describe below using a dotted line (*see example*).



4. Were you able to identify any of the organisms you observed? If so, please name and describe them. If not, give a detailed description of one of the organisms you observed.

5. What roles do you think the organisms your observed serve in their environments? Explain