

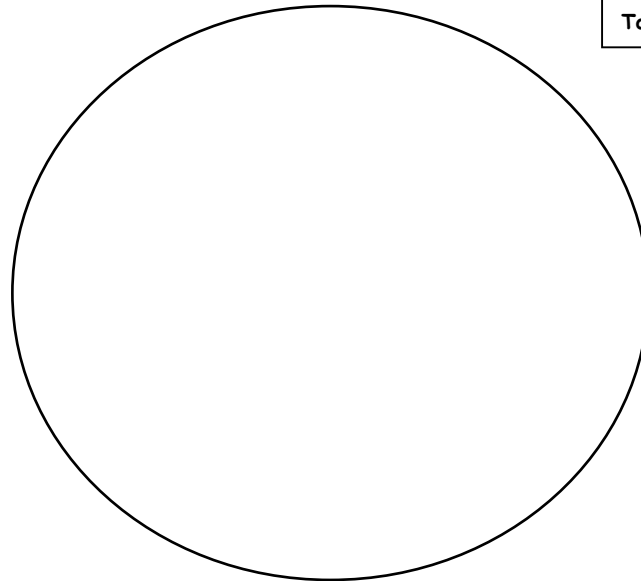
Name _____

Date _____

Class _____

Onion Cell Lab

Power _____
Total Magnification _____



After you have completed the rest of this lab come back to this cover page

DRAW & LABEL AN ONION CELL WITH ALL THE PARTS / ORGANELLES YOU OBSERVE UNDER 40X.

Purpose: To observe and identify major plant cell structures and to relate the structure of the cell to its function.

Materials:

1. Onion layer (tissue)
2. iodine stain
3. slide & cover slip

Procedure:

1. Carefully separate the thin film tissue from between two layers of an onion
2. Carefully place a small sample of this tissue onto a slide - avoid folds & creases
3. Put a drop of iodine stain on the tissue
4. Carefully place a coverslip to avoid air bubbles
5. Observe your slide under 4X power - draw what you see - identify & label cell parts - write a brief description of your observations & magnification next to each drawing.
6. Observe your slide under 10X power - draw what you see - identify & label cell parts - write a brief description of your observations & magnification next to each drawing.
7. Observe your slide under 40X power - draw what you see - identify & label cell parts - write a brief description of your observations & magnification next to each drawing.

Name _____ Date _____

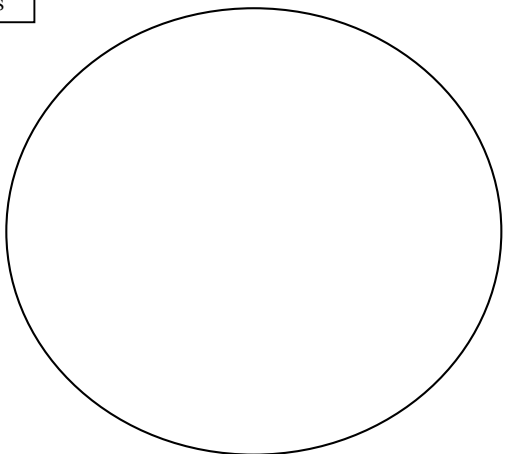
Class _____

Observations: Use Complete Sentences

Observe your slide under 4X power draw what you see - identify & label cell parts
write a brief description of your observations & magnification next to each drawing.

Power _____
Total Magnification _____

Cell Part Labels

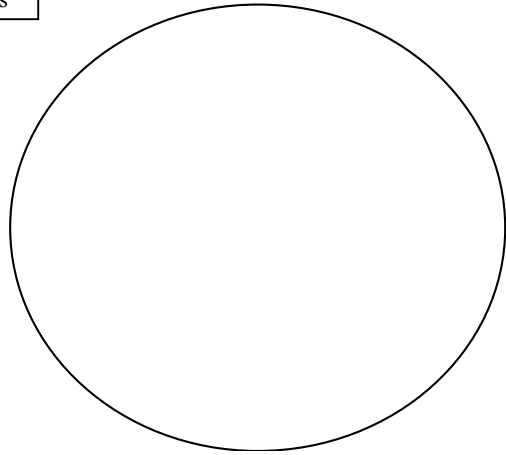


Observations: Use Complete Sentences

Observe your slide under 10X power - draw what you see - identify & label cell parts
write a brief description of your observations & magnification next to each drawing

Power _____
Total Magnification _____

Cell Part Labels

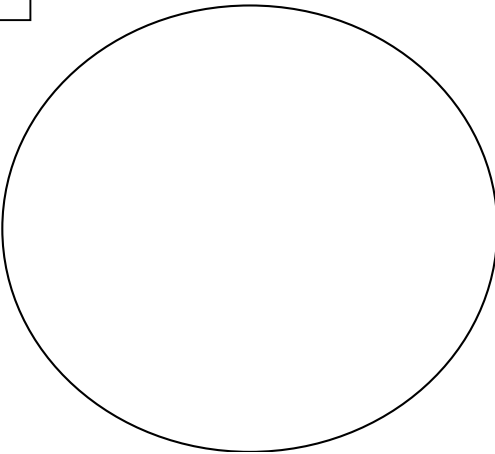


Observations: Use Complete Sentences

Observe your slide under 40X power - draw what you see - identify & label cell parts write a brief description of your observations & magnification next to each drawing

Power _____
Total Magnification _____

Cell Part Labels



Conclusions: use the back of this page and separate pieces of lined paper for your answers

Use complete sentences and paragraphs for your answers ON THE BACK OF THIS PAGE. Be sure that the person reading your answer will know what the original question is without having to look back to see.

1. Describe the shape(s) of the cell wall.
2. Is there a cell membrane in an onion cell? Explain your answer.
3. Were all the cells the same shape? Explain why.
4. Explain the reason(s) why you used iodine stain. What would the onion cell(s) have looked like without the stain?
5. Make a chart that lists the cell parts that you observed & labeled and tell what each part does for the cell.
6. Describe where the cell parts were placed/located inside the cell in relation to each other.
7. Describe the ways that all the cells you observed were alike and how they were different from each other.
8. Explain the reason(s) why you would not expect to see chloroplasts in these (onion) cells? Where would you take a tissue sample from to be able to see chloroplasts?