

Name: _____ Class: _____ Date: _____

Plant vs Animal Cells



Learner Outcomes:

- Use instruments - including microscopes - effectively and accurately for collecting data (e.g., use a microscope to produce a clear image of cells).
- Distinguish between plant and animal cells

Key Terms:

Plant cell

Cell membrane

Nucleus

Animal cell

Chloroplasts

Vacuoles

Organelles

Cytoplasm

Cell wall

Mitochondria

Background Information: Within each cell there are a number of specialized structures called organelles that carry out specific functions and contribute to the overall health of the cell. While many organelles are common to all types of cells, some are unique to plant or animal cells. Scientists can use laboratory drawings to illustrate the differences between different types of cells.

Keys to a lab drawing

- all drawings need to be completed in *pencil*
- Draw only what you see and keep your details simple (you do not need coloring or shading)
- Add labels that identify features you see (always draw label lines with a ruler and arrange your labels and lines clearly and neatly on your page)
- Record the total magnification at the bottom of your page
- Give your drawing a title at the top of the page

Investigative Question: How are plant and animal cells different?

Hypothesis:

Materials:

Compound microscope

Prepared slides of
plant cells

Prepared slides of
animal cells

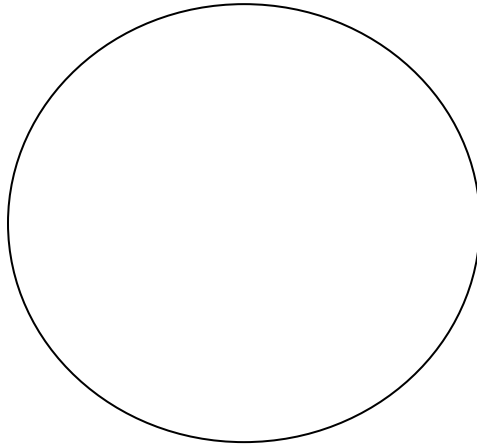
Procedure:

In this lab you will be observing both plant and animal cells and making comparisons between the two.

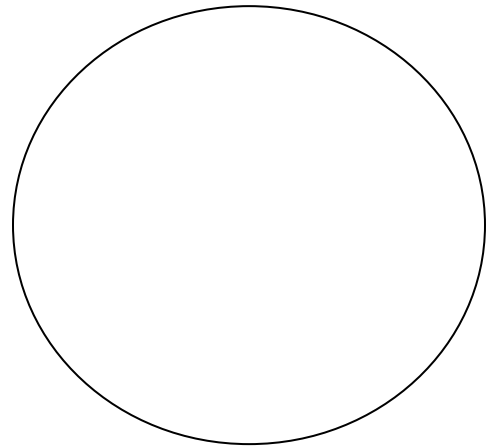
1. Set up your microscope and observe **two plant** tissue slides and **two animal** tissue slides on high power.
2. **Draw and label** what you see in the field of vision. Write a qualitative observation about what you see in your observations:

Observations:

Plant Cells:

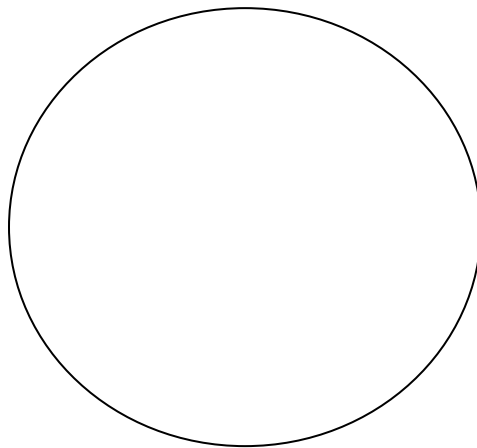


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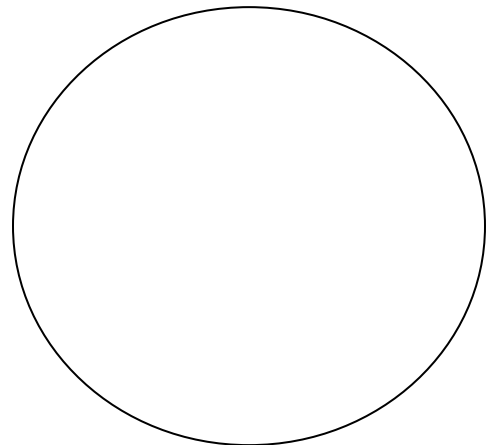


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Animal Cells:



Magnification =



Magnification =

Analysis:

1. List the differences that you observed between the animal and plant cells.

2. List the similarities that you observed between the animal and plant cells.

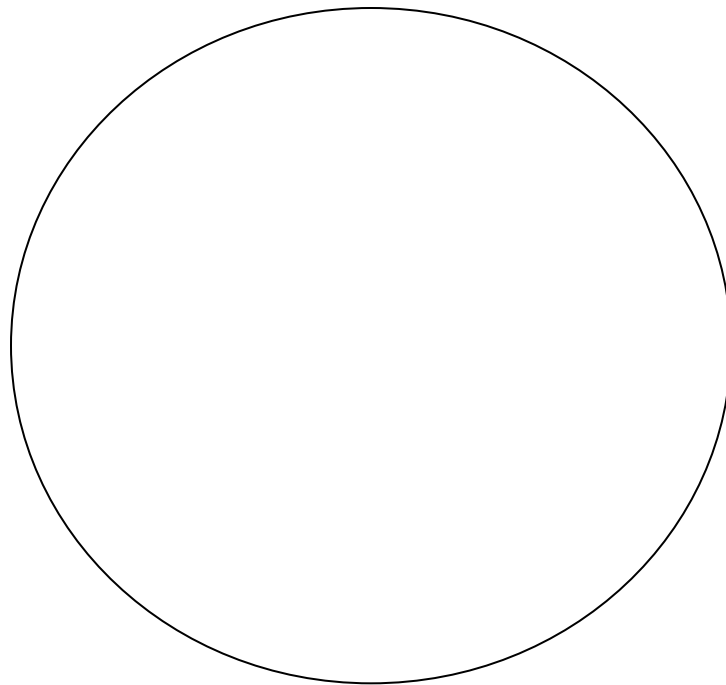
3. What organelles were you unable to see under the microscope? Why?

Conclusion:

Extension:

Plant Tissue Drawing

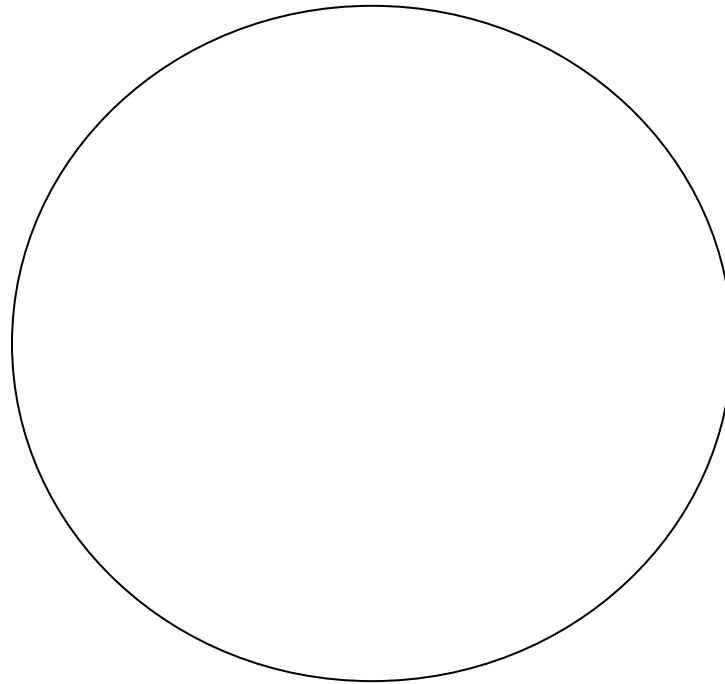
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Animal Tissue Drawing

Title: _____



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