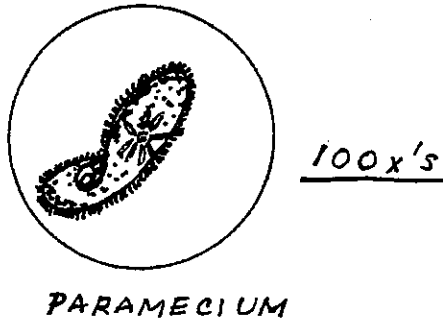


# Making Quality Drawings and Sketches

Remember, your teacher cannot look into every student's microscope and at every student's specimen in every lab. The only way we will know if you observed the correct structures will be from your drawing (data). Please pay attention to the following guidelines to make sure you get the most credit when recording qualitative data:

1. Please use a circular template when making circles for microscope drawings. Always label the circle with a **TITLE** of what you are observing as well as the **MAGNIFICATION** under which the drawing was made.



2. You may sketch in pencil. Please add **REALISTIC COLOR**. Color is a fact observation so use realistic colors!

3. Always **LABEL** structures in your drawings that you know **IN INK!!**

4. Draw to **SCALE**. That is, if the specimen takes up half your field of view, then your drawing should take up half your circle.

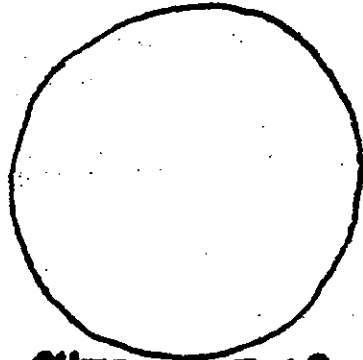
5. You needn't be an artist to receive full credit for your drawings. Adding **DETAIL** to your sketches is easily done and can enhance the quality. Scribbling definitely detracts from the content of your sketch and will receive low points.

Remember....**PURPOSEFUL MARKINGS !!!**

# MICROVIEWER LAB #2

## CELLS OF YOUR BODY

NAME \_\_\_\_\_  
PERIOD \_\_\_\_\_

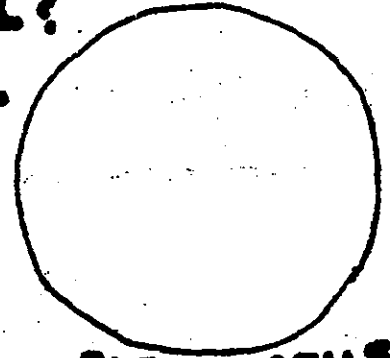


CHEEK CELLS

1. HOW MANY TIMES HAS THIS BEEN MAGNIFIED?  
\_\_\_\_\_

2. WHAT IS THE LARGE DARK SPOT IN THE CENTER OF THE CELL?  
\_\_\_\_\_

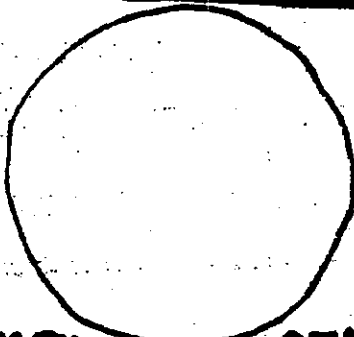
3. WHAT CHEMICAL DO RED BLOOD CELLS CONTAIN?  
\_\_\_\_\_



BLOOD CELLS

4. WHAT IS THE FUNCTION OF WHITE BLOOD CELLS?  
\_\_\_\_\_  
\_\_\_\_\_

5. WHERE ARE LYMPH GLANDS LOCATED?  
\_\_\_\_\_

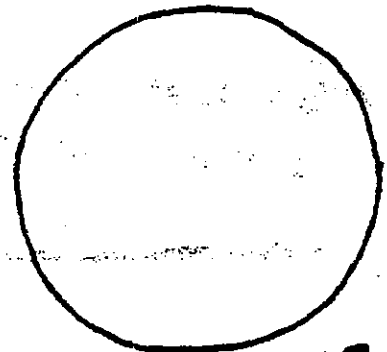


LYMPH GLAND CELLS

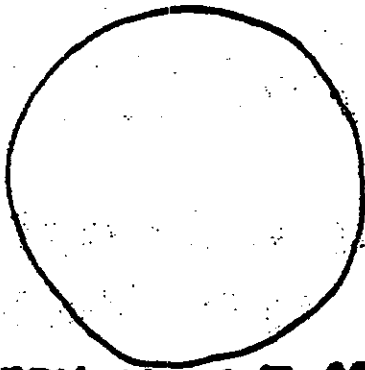
6. HOW ARE LYMPH GLANDS SIMILAR TO WHITE BLOOD CELLS?  
\_\_\_\_\_  
\_\_\_\_\_

7. WHAT DO CANALS DO IN BONE CELLS?  
\_\_\_\_\_

8. WHY IS MILK IMPORTANT FOR BONES?  
\_\_\_\_\_  
\_\_\_\_\_



BONE CELLS



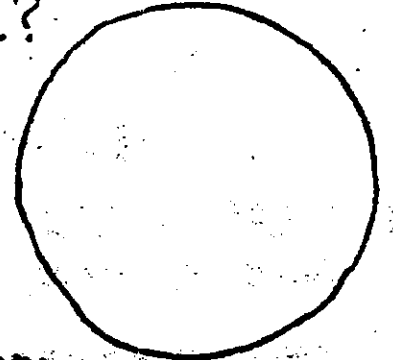
**VOLUNTARY MUSCLE CELL**

9. WHERE ARE VOLUNTARY MUSCLES FOUND IN THE BODY? \_\_\_\_\_

10. WHAT IS A MUSCLE CONTRACTION? \_\_\_\_\_

11. WHAT IS THE DARK BODY INSIDE THE CELL? \_\_\_\_\_

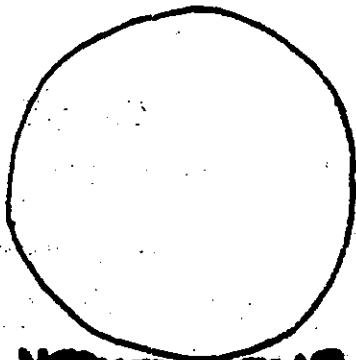
12. WHY ARE THEY CALLED "SMOOTH" MUSCLES? \_\_\_\_\_



**INVOLUNTARY MUSCLE CELL**

13. HOW DO WE HAVE LEARNING AND MEMORY? \_\_\_\_\_

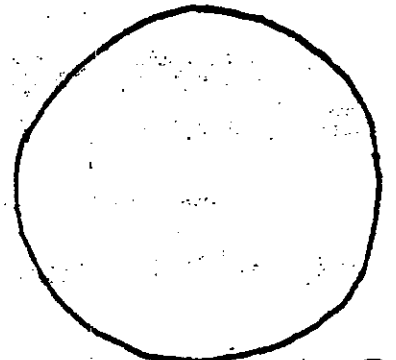
14. HOW ARE NERVE CELLS SHAPED? \_\_\_\_\_



**NERVE CELLS**

15. WHAT IS THE MAGNIFICATION? \_\_\_\_\_

16. WHAT IS THE FUNCTION OF THE GLAND CELL? \_\_\_\_\_



**GLAND CELLS**

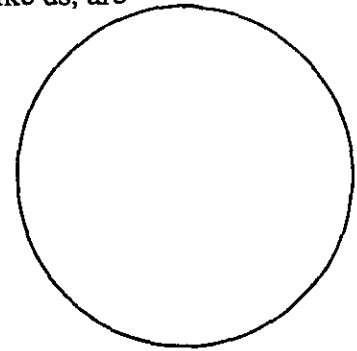
# Microviewer Lab: CELLS OF PLANTS AND ANIMALS

## INTRODUCTION:

All living things are made of \_\_\_\_\_. Some *UNICELLULAR* organisms are made up of only \_\_\_\_\_ cell while other organisms, like us, are *MULTICELLULAR*. We are made of \_\_\_\_\_ of cells.

Why do cells come in different sizes and shapes?

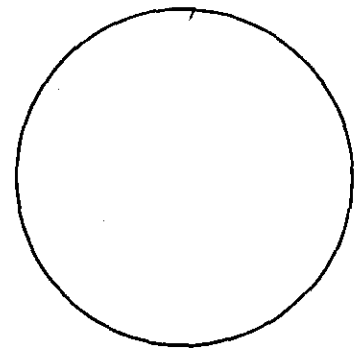
What does the number after the name of the slide refer to?



## SLIDE 1: CHEEK LINING CELLS (\_\_\_\_\_x)

Label: cytoplasm, nucleus, cell membrane.

How is the shape of cheek cells and the way they are arranged related to the job cheek cells do?

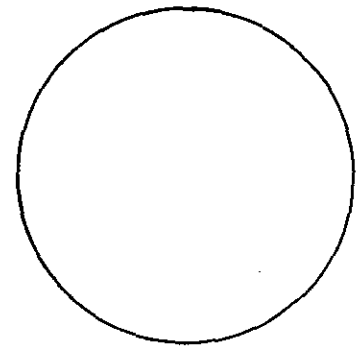


## SLIDE 2: ONION SKIN CELLS (\_\_\_\_\_x)

Label: nucleus, cytoplasm, cell wall

How is the onion cell like the cheek cell in the previous slide?

How is it different?

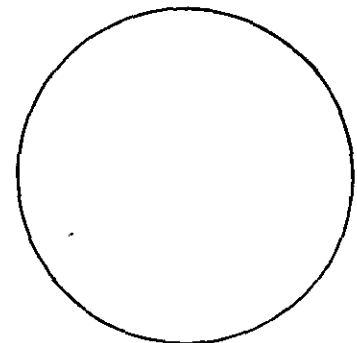


## SLIDE 3: SPIROGYRA CELL (\_\_\_\_\_x)

Label: cell wall, chlorophyll, nucleus

What does spirogyra use chlorophyll for?

Where might you find spirogyra?

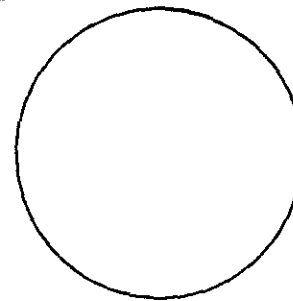


SLIDE 4: AMEBA ( \_\_\_\_\_ x)

Label: nucleus

Where might you find an ameba?

How does an ameba get its energy?

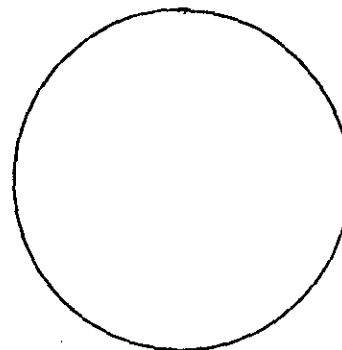


SLIDE 5: GREEN LEAF CELLS ( \_\_\_\_\_ x)

Label: stomates, vein, guard cells, chlorophyll, cell wall

Why would this slide be an example of an organ?

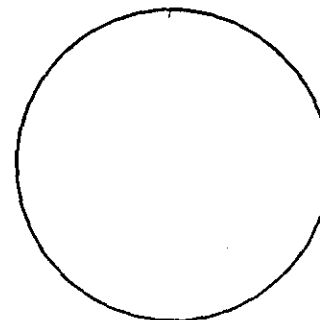
How is the structure and arrangement of leaf cells related to its job of photosynthesis?



SLIDE 6: WOOD CELLS ( \_\_\_\_\_ x)

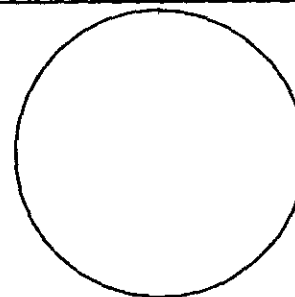
What structures can you see in this slide? Label them.

What structures can you not see? Why?



SLIDE 7: BONE CELLS ( \_\_\_\_\_ x)

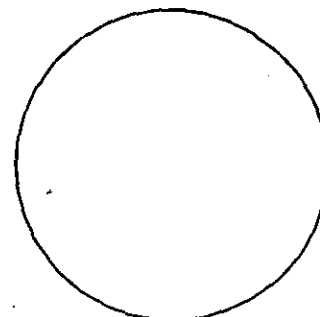
How are the shape and arrangement of these cells help it to do its job?



SLIDE 8: BRAIN CELLS ( \_\_\_\_\_ x)

Why do you think brain cells have long fibers?

How are brain cells different from the cheek cells you observed in slide #1?

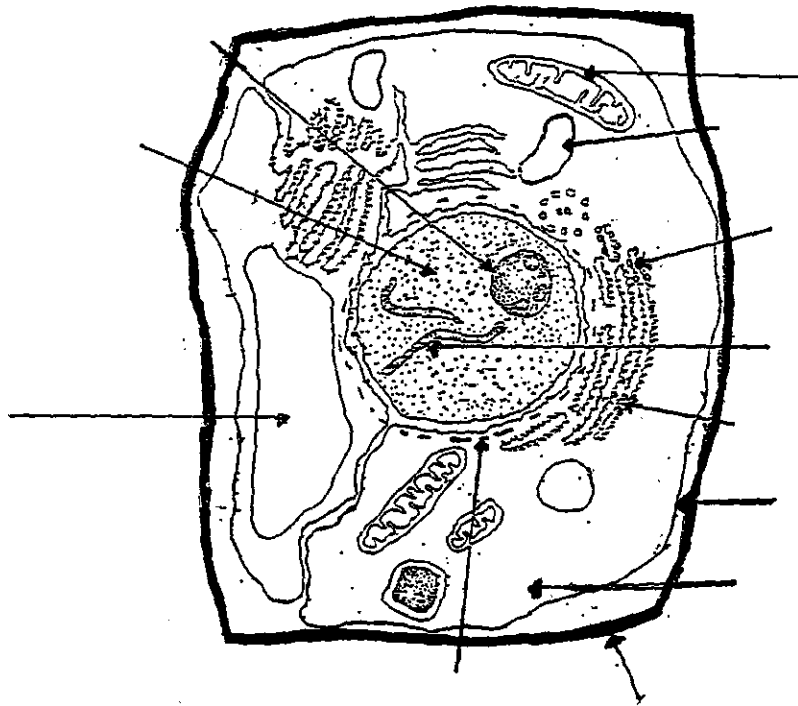


# PLANT CELLS

1. ALL PLANT CELLS HAVE A \_\_\_\_\_  
MADE OF \_\_\_\_\_.

2. THE CELL WALL HAS 3 JOBS:

- 
- 
- 



3. PLANT CELLS HAVE ONLY \_\_\_\_\_ OR \_\_\_\_\_  
VERY \_\_\_\_\_.

4. PLANT CELLS HAVE \_\_\_\_\_  
THAT CONTAIN A GREEN LIQUID. CALLED  
\_\_\_\_\_. PLANTS NEED THIS TO \_\_\_\_\_  
\_\_\_\_\_.

The structure and function of the cell was a puzzle to scientists for a long time. Recently, with the aid of special microscopes, scientists began to solve the puzzle and pieces began to fall into place. The puzzle pieces shown below can be fitted together to make a picture of a cell. Carefully cut each piece. Arrange them in proper position on a sheet of paper. Then glue them down. Color.

Is this a plant or animal cell? \_\_\_\_\_

How can you tell? \_\_\_\_\_

You will notice that the labels for the cell parts have been left out. Write the name of each part and its function in the spaces provided.

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_
6. \_\_\_\_\_
7. \_\_\_\_\_
8. \_\_\_\_\_
9. \_\_\_\_\_

