LOOKING AT CELLS THROUGH A MICROSCOPE

LESSON 2

OBJECTIVE:

Students will be able to properly set up and use a microscope using low and high power objective lenses with a prepared slide.

Students will be able to view cells of unicellular and multi-cellular organisms, identifying the cytoplasm, cell membrane and nucleus.

MATERIALS:

Microscope(s) Small Group Set
Prepared Slides – Zoology slide kit
- Amoeba
- Animal Cells

PROCEDURE:

1. View Cell Power Point
2. Review Microscope handling and use
3. Read through activity with students…Student Handout
4. Activity: Following handout directions…students will draw cells of an amoeba and animal cell and make observations.
5. Clean up

CLOSURE:

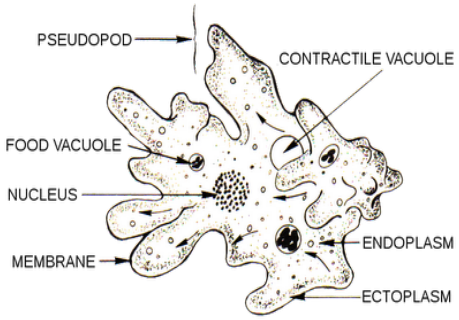
Share answers to question from Student Handout.

Name:_____

STUDENT HANDOUT: LOOKING AT CELLS THROUGH A MICROSCOPE

AMOEBA

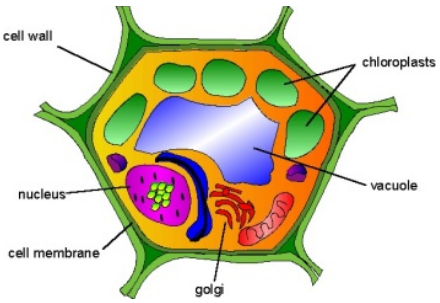
Amoebas are single-celled/unicellular organisms. "Single-celled" means that amoebas have only one cell for their entire body. The inside of an amoeba has a jelly-like fluid called *cytoplasm*.

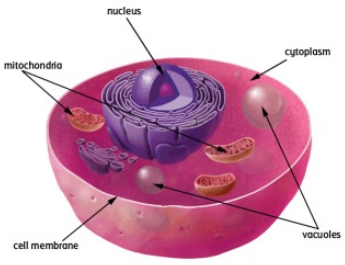


ANIMAL

Humans are multi-cellular organisms because they are made up of many cells. A human body has more cells than you can count.

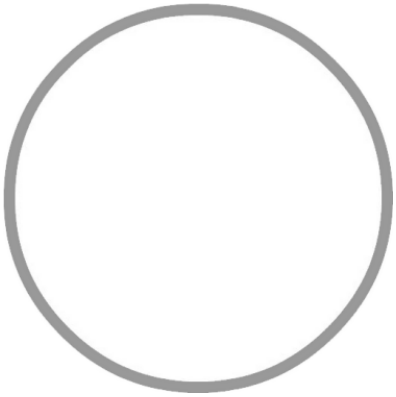
Cells are made up of many different parts, organelles, but today we are only going to focus on:
Cytoplasm-is the fluid that fills the cell. It is mostly made of water.
Nucleus-is like the brain of the cell. It helps control eating, movement, and reproduction. It is the largest organelle in the cell.
Cell Membrane protects and organizes cells. All cells have an outer plasma membrane (cell membrane) that regulates not only what enters the cell, but also
How much of any given substance come in.



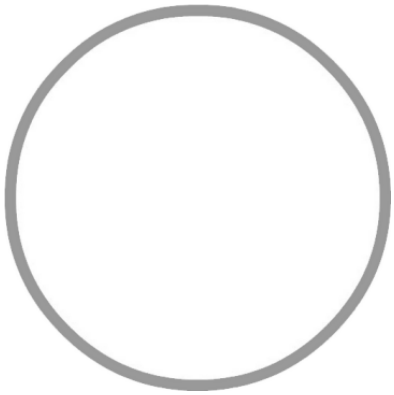


Name:_____

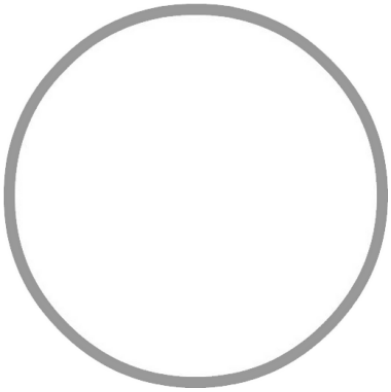
DRAW AND LABEL THE FOLLOWING ORGANISMS OR CELLS. LABEL THE CYTOPLASM, CELL MEMBRANE AND NUCLEUS.



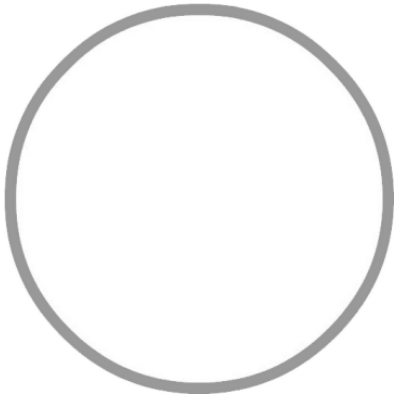
Amoeba (low power)



Amoeba (high power)



Animal Cell (low power)



Animal Cell (high power)

Answer the following questions in complete sentences:

1. When observing the amoeba, what did you notice between the low power and high power magnification?_____
   _____
2. How were the amoeba and animal cells different?
   _____
   _____
3. What organelle, part of the cell, was the easiest to identify? Why?
   _____
   _____