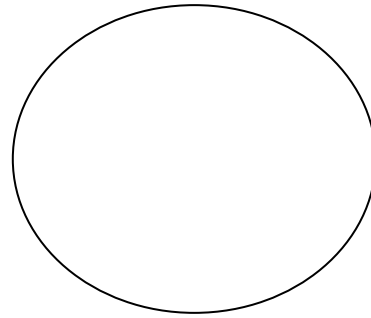


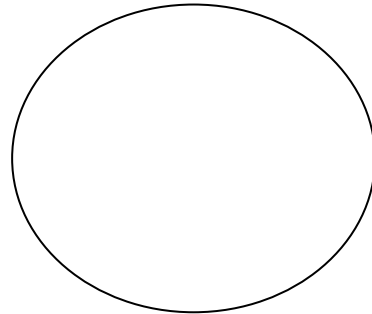
Part 1: Human Epithelial Cells

1. Make a drawing of 2-3 cells as they appear under high power (400x). Label the nucleus, nuclear membrane, cytoplasm and cell membrane.



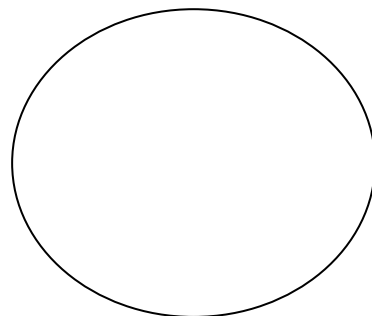
2. What is the shape of the cells? \_\_\_\_\_  
\_\_\_\_\_
3. Describe the appearance of the cytoplasm.  
\_\_\_\_\_

4. Make a drawing of these cells as you think they would appear in the lining of your mouth.



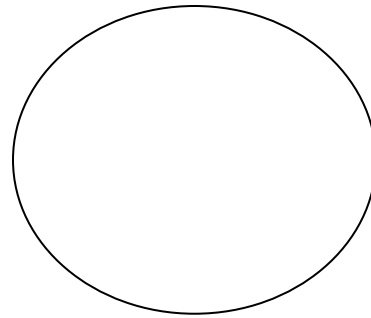
Part 2: Onion Epidermal Cells

1. What is the shape of the cells? \_\_\_\_\_  
\_\_\_\_\_
2. Make a diagram of a single cell. Label only the parts you see.



3. What structure do you see that indicates these are plant cells? \_\_\_\_\_  
\_\_\_\_\_
4. Describe the appearance of the cytoplasm and any motion that you observe. \_\_\_\_\_  
\_\_\_\_\_
5. How many nuclei are present in each cell? \_\_\_\_\_

6. What structures do you see in the nucleus? How many are there in each nucleus? \_\_\_\_\_  
\_\_\_\_\_
7. How does the cytoplasm in the stained cell differ in appearance from the cytoplasm in the unstained cell? \_\_\_\_\_
8. Make a drawing of a stained onion cell.  
Label the structures you see.



Analysis and Interpretations

1. List the structures that human epithelial cells have in common with onion cells? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. How do human epithelial cells and onion cells differ? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Some of the epithelial cells are folded or wrinkles. What does this tell you about the thickness of the cells? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. What is the advantage of using stain? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
5. How can you tell that an onion cell has depth? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_