Organelles of the Day-Plasma Membrane and Nucleus

Yes, today you are going to look at your very own **cheek cells**. As you examine your cellular self you will look for the nucleus and the plasma membrane. Before we start you need to answer a few questions.

1. Is a cheek cell an animal cell or a plant cell?
   _____
2. What is the function of the nucleus?
   _____
   _____
3. How does the plasma membrane protect the cell?
   _____
   _____

Follow the directions very carefully and you will be able to get up close and personal with your cheek cell.

1. Get a clean slide and cover slip.
2. Take a toothpick and gently scrape cells from the inside of your cheek.
3. Rub the end of the toothpick (with your cells) on the center of the slide. PLEASE throw your toothpick in the trash!
4. Add a drop of iodine on top of the cheek cells
5. Gently place a cover slip on top of the slide.
6. Place the slide on the stage, and bring the cells into focus using low power. Use the coarse adjustment to focus on a particle and see if you have found your cellular self. A cheek cell will look like a transparent, circular object with a dark spot. The dark spot is the nucleus and the cell boundary is the plasma membrane. The cheek cell may look like a fried egg!
7. Have your teacher check to make sure you have found a cheek cell and you will receive a little snack. After your snack switch to the high power objective. Remember!! Put the object in the middle of the field of view before switching to high power.
8. USING FINE ADJUSTMENT ONLY, focus on your cheek cell. Draw a picture of your cheek cell in the space below.

Cheek Cell

Magnification _____

Use a ruler to draw lines to the nucleus and the plasma membrane and label them. Cheek cells are usually about 0.02 mm. Based on that, calculate the actual magnification of your drawing and write it at the bottom of the rectangle.

Questions:

Using your textbook, answer the following questions.

1. What are the major components of the plasma membrane?
   _____
   _____
2. What are two processes by which materials can move through the membrane? _____
3. What molecule related to inheritance is found in the nucleus?
   _____
4. This molecule (#3) contains directions for making _____ that help the cell do its work.
5. The _____ is a structure found in the nucleus that makes ribosomes.