Final Review: Cells

Things I Should Know:
1. Use correct instruments to observe, describe, and compare various types of cells.
2. Identify the cell wall, cell membrane, nucleus, chloroplast, and cytoplasm of cells.
3. Model the processes of diffusion and osmosis.
4. Report on how the basic functions of organisms are carried out within cells.

Practice Questions:
1. What tool do you use to observe cells? ___________________________________________________
2. Fill out the table below.

<table>
<thead>
<tr>
<th>Organelle</th>
<th>Job</th>
<th>In Plants?</th>
<th>In Animals?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mitochondria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cell Wall</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Nucleus</td>
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<td></td>
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<tr>
<td>Chloroplast</td>
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<tr>
<td>Cytoplasm</td>
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<td></td>
</tr>
<tr>
<td>Cell Membrane</td>
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</tbody>
</table>

3. How is a plant cell different than an animal cell? ___________________________________________

4. Label the cell below.
5. What type of cell is the cell diagram on the last page? _______________

6. Leaves are part of plants that use the process of photosynthesis to make food. What organelle would a leaf cell need a lot of in order for a plant to get enough food? _______________________________

7. In the second square, draw what the cell would look like after diffusion of the molecules happens.

8. In the second square, draw what the cell would look like after osmosis happens.

9. What is the difference between osmosis and diffusion? ______________________________________
   ____________________________________________________________________________________

10. What organelle allows osmosis to take place? _____________________________________________

11. If I put a cell (which is about 95% water) in a container of salt water (80% water), will the net movement of water be into the cell or out of the cell? ________________________________________________

12. What will happen to the cell? ________________________________________________________
   ____________________________________________________________________________________