Prokaryote vs. Eukaryotic Cell Notes

The many different kinds of cells that exist can be divided into two groups. Cells that have DNA loose inside the cell are called Prokaryotic and cells that have a nucleus to hold the DNA are called Eukaryotic.

Prokaryotic Cell:

Prokaryotic cells are also called bacteria. They are the world's smallest cells and do not have a nucleus. The only organelles that prokaryotic cells have are ribosomes to make proteins.

Eukaryotic Cell:

Eukaryotic cells are more complex and are about 10 times larger than prokaryotic cells. Eukaryotic cells have a nucleus and other membrane-covered organelles.

<table>
<thead>
<tr>
<th>Prokaryotic Cells</th>
<th>Eukaryotic Cells</th>
</tr>
</thead>
<tbody>
<tr>
<td>- no nucleus</td>
<td>- Nucleus</td>
</tr>
<tr>
<td>- no membrane covered organelles</td>
<td>- has membrane covered organelles</td>
</tr>
<tr>
<td>- circular DNA</td>
<td>- linear DNA</td>
</tr>
<tr>
<td>- bacteria</td>
<td>- all other cells</td>
</tr>
</tbody>
</table>
Cell Organelle ID

Animal Cell Diagram

- Cell Membrane
- Cytoplasm
- Ribosomes
- Nucleus
- Endoplasmic Reticulum
- Mitochondria
- Lysosome
- Golgi Body
- Vacuole

Plant Cell Diagram

- Nucleus
- Ribosomes
- Endoplasmic Reticulum
- Large Vacuole
- Chloroplast
- Cell Membrane
- Cell Wall