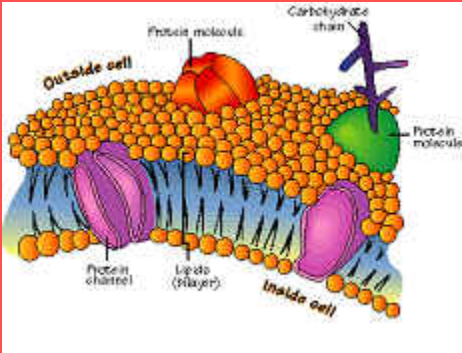
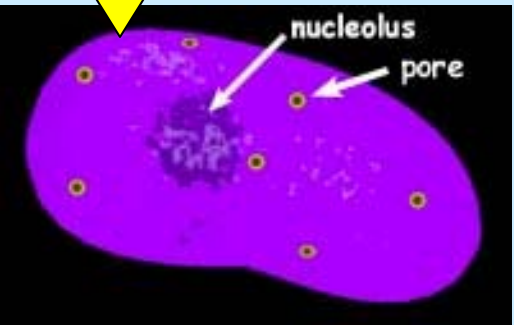




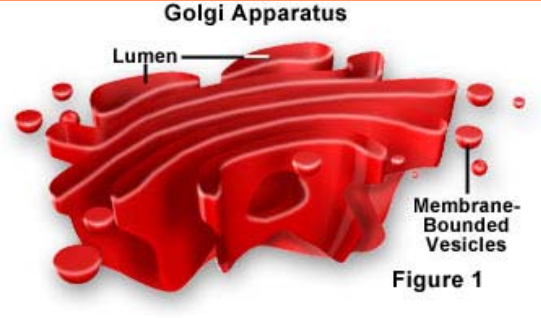
# Cell (Organelles) Functions

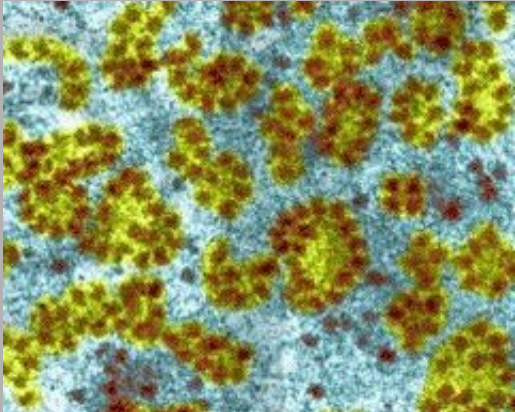


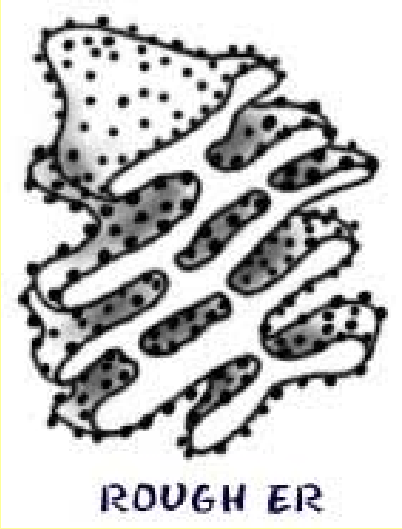

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Cell Membrane</p> <p>Cell Wall → cellulose (structural support)</p>	<p>Plant &amp; Animal</p> <p><b><i>Cell Wall is Plants <u>ONLY</u></i></b></p> 	<p>Is <i>selectively permeable</i>: allows <u>specific</u> molecules to pass in and out.</p> <p>Allows diffusion and osmosis to occur</p> <p><b><u>Endocrine System</u></b>: Allows molecules to move in and out to keep homeostasis</p>


Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Nucleus</p> 	Plant & Animal	<p>Brain of the cell</p> <p>Contains <u>nucleolus</u>: acts as the control center (President, CEO)</p> <p>Contains nucleic acids (DNA and RNA)</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Mitochondria</p> 	<p>Plant &amp; Animal</p> 	<p>Powerhouse of cell (<i>energy</i>)</p> <p><b>Cellular respiration</b> takes place</p> <p>→ breaks down glucose to make energy molecule, ATP</p>

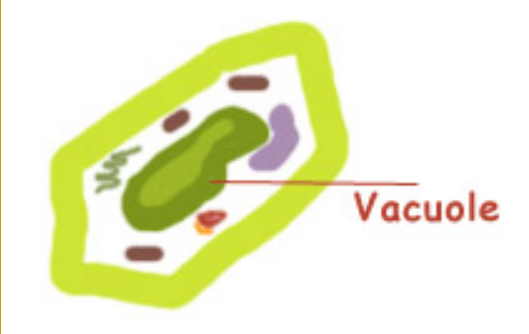
Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Golgi Apparatus</p> 	<p>Plant &amp; Animal</p>	<p>UPS Center</p> <p>Processing, packaging, and secreting (to deliver) molecules</p> <p>Looks like a series of flattened stack of pancakes</p>

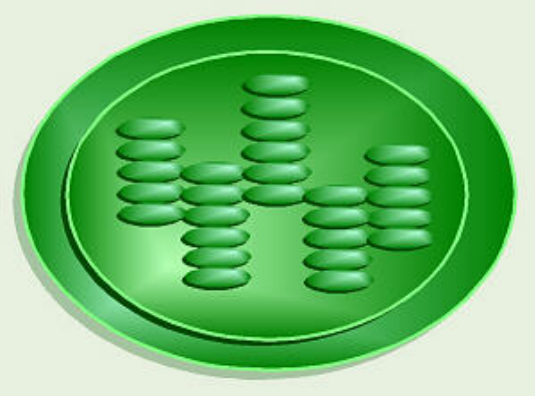
Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Ribosomes</p> <p><u>NOT</u> bound by a surrounding membrane</p>	<p>Plant &amp; Animal</p>  <p>An electron micrograph showing numerous small, dark, spherical ribosomes scattered across a lighter, granular background. The ribosomes appear as dense, yellowish-brown clusters.</p>	<p>Most numerous organelle.</p> <p>Important for protein synthesis by RNA</p> <p><u>2 Types:</u></p> <p><i>Free</i> (floating)</p> <p><i>Attached</i> to an organelle</p>

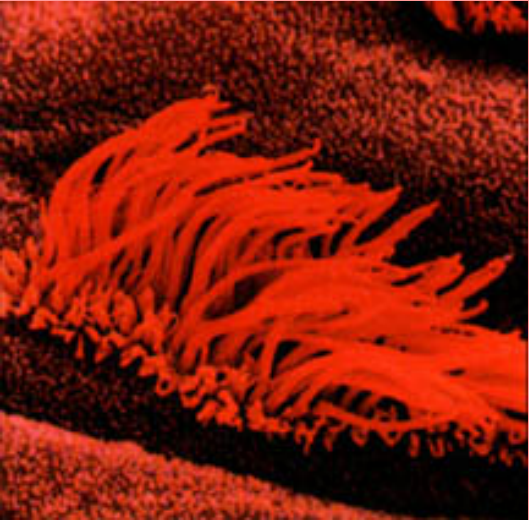
Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Endoplasmic Reticulum (ER)</p>  <p>ROUGH ER</p>	<p>Plant &amp; Animal</p>  <p>SMOOTH ER</p>	<p>Intracellular Highway → Where molecules, fluids, gases travel</p> <p><u>2 types:</u></p> <p><i>Smooth ER</i>: NO ribosomes</p> <p><i>Rough ER</i>: HAS ribosomes</p> <p><u>Circulatory System:</u> Keeps flow (balance) through the ER</p>


Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Lysosomes</p> 	<p>Plant &amp; Animal</p>	<p>Aids in digestion</p> <p>→ digest old organelles, viruses, food, blood, waste and bacteria</p> <p>Looks like "<i>eyeballs</i>"</p> <p><u>Excretory System:</u> responsible for removing waste</p>


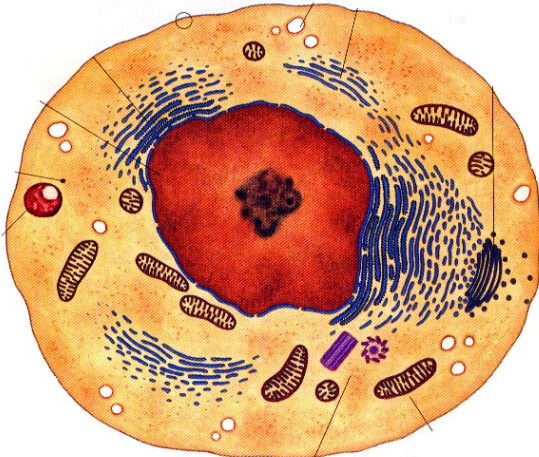


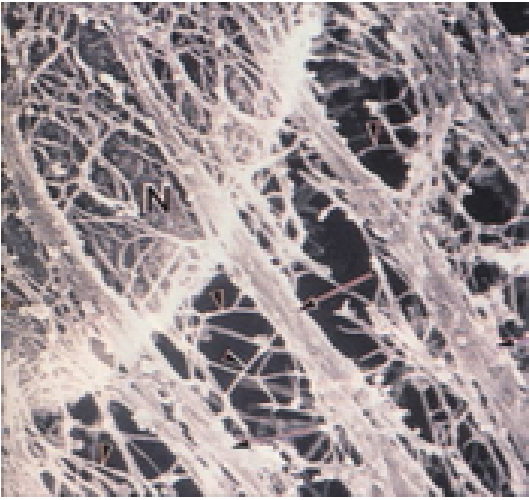
Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Vacuole</p> 	<p>Plants <i>ONLY</i></p>	<p>Large storage sac (90%)</p> <p>Stores food, enzymes, waste products, toxins</p> <p><u>Excretory System:</u> responsible for <b>removing</b> waste products</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Chloroplast</p> 	Plants <i>ONLY</i>	<p>Money Bags</p> <p>Responsible for <i>photosynthesis</i></p> <p>Plants make food (glucose)</p> <p>Gives off O<sub>2</sub> gas</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Cilia</p> 	Plant & Animal	<p>Short, numerous, hairlike structures</p> <p>Found in ears, nose, tongue, and lungs</p> <p>Helps cell move, protection from bad cells or germs, and defense</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Flagella</p> 	Plant & Animal	<p>Long and less numerous (usually 1 or 2)</p> <p>Whip like motion, protection, and defense</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Cytoplasm</p> 	<p>Plant &amp; Animal</p> 	<p>Clear jelly like fluid between cell parts</p> <p>Jelly donut</p> <p>Aids in digestion and protection</p>

Cell Part (Organelle)	Plant or Animal	Function and Transport System
<p>Cytoskeleton</p> <p>(Long protein strands)</p>	<p>Plant &amp; Animal</p> 	<p>Helps form the frame work of the cell</p> <p>Like the skeleton forms the frame work of your body</p> <p><u>2 Types:</u> Microtubules microfilaments</p>