

Answer each question below in the space provided.

For each organelle that you labelled in the animal cell and plant cell diagrams:

- Indicate if it is found in animal cells only, plant cells only, or both
- Describe its function(s). **Ensure the function is specific and described in detail.** This will require research. I have completed the first one for you.

Organelle	Found in Animal cell, Plant cell, or Both	Description (What is it?)	Functions (What does it do?)
<b>cell membrane</b>	both	<ul style="list-style-type: none"> <li>• a thin layer that surrounds the cell and encloses the cell's contents</li> <li>• made up of a phospholipid bilayer</li> </ul>	<ul style="list-style-type: none"> <li>• separates and protects the cell from its surroundings</li> <li>• keeps some materials out and holds some materials in</li> <li>• allows certain materials to pass through it in order to enter the cell or exit the cell</li> </ul>
<b>cell wall</b>		<ul style="list-style-type: none"> <li>• surrounds the cell membrane</li> <li>• is strong and fairly rigid</li> <li>• made up of a network of tough fibres made mainly of cellulose</li> </ul>	
<b>cytoplasm</b>		<ul style="list-style-type: none"> <li>• also called the <b>cytosol</b></li> <li>• a jelly-like fluid throughout the cell</li> </ul>	
<b>cytoskeleton</b>		<ul style="list-style-type: none"> <li>• it is a network of various types of protein fibers</li> <li>• it is located where the cytoplasm comes in contact with the cell membrane</li> </ul>	

<p><b>Nucleus</b></p>		<ul style="list-style-type: none"> <li>• the organelle that contains DNA</li> <li>• also known as the <b>information centre</b> of the cell</li> </ul>	
<p><b>nucleolus</b></p>		<ul style="list-style-type: none"> <li>• it is a round body found inside the nucleus</li> </ul>	
<p><b>ribosomes</b></p>		<ul style="list-style-type: none"> <li>• they are very small organelles</li> <li>• <i>free ribosomes</i> float within the cytoplasm</li> <li>• other ribosomes are attached to the endoplasmic reticulum</li> </ul>	
<p><b>rough endoplasmic reticulum</b></p>		<ul style="list-style-type: none"> <li>• a network of tubes and chambers connected to the nucleus</li> <li>• has ribosomes attached to it</li> <li>• appears rough or pebbled</li> </ul>	
<p><b>smooth endoplasmic reticulum</b></p>		<ul style="list-style-type: none"> <li>• network of tubes and chambers</li> <li>• do not have ribosomes attached to it</li> <li>• appears smooth</li> </ul>	
<p><b>Golgi Body</b></p>		<ul style="list-style-type: none"> <li>• also called <b>Golgi complex</b> or <b>Golgi apparatus</b></li> <li>• made up of a stack of flattened pouches or sacs</li> </ul>	

<p><b>Vacuoles</b></p>		<ul style="list-style-type: none"> <li>• a fluid-filled pocket</li> <li>• One large one in plant cells and many small ones in animal cells</li> </ul>	
<p><b>lysosomes</b></p>		<ul style="list-style-type: none"> <li>• containers, or sacs, surrounded by membrane</li> <li>• contain enzymes</li> <li>• made in the Golgi body</li> </ul>	
<p><b>mitochondria</b></p>		<ul style="list-style-type: none"> <li>• made up of a smooth outer membrane and an inner membrane that has many folds</li> <li>• also known as the <b>powerhouse</b> of the cell</li> </ul>	
<p><b>chloroplasts</b></p>		<ul style="list-style-type: none"> <li>• oval-shaped organelle</li> <li>• contain a pigment called <i>chlorophyll</i> that gives plants their green colour</li> </ul>	
<p><b>centrioles</b></p>		<ul style="list-style-type: none"> <li>• made of protein strand called <i>microtubules</i> that are arranged in a cylinder</li> </ul>	
<p><b>vesicles</b></p>		<ul style="list-style-type: none"> <li>• are small spherical compartments</li> </ul>	

Put a check in the appropriate column(s) to indicate whether the following organelles are found in plant cells, animal cells, or both.

Organelle	Plant Cells	Animal Cells
Cell Wall		
Vesicle		
Chloroplast		
Centriole		
Cytoplasm		
Cytoskeleton		
Endoplasmic reticulum		
Golgi body		

Organelle	Plant Cells	Animal Cells
Mitochondria		
Nucleolus		
Nucleus		
Cell membrane		
Central vacuole		
Ribosome		
Vacuoles		
Lysosome		