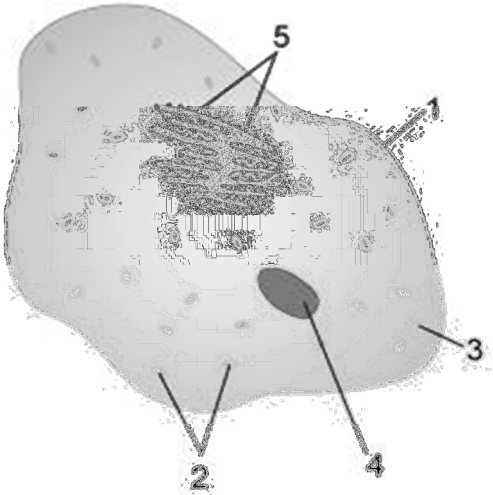
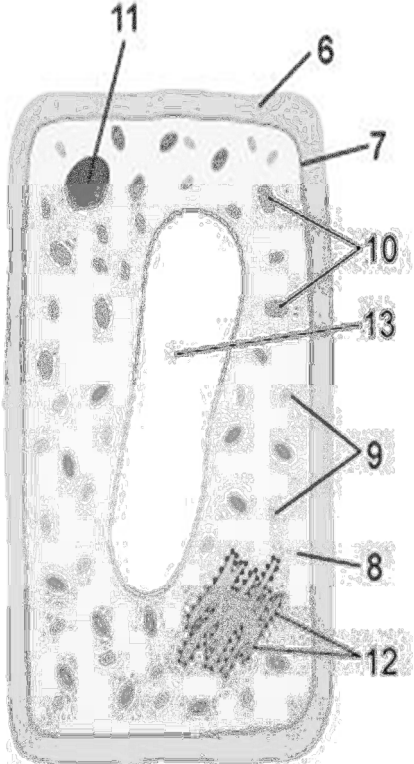
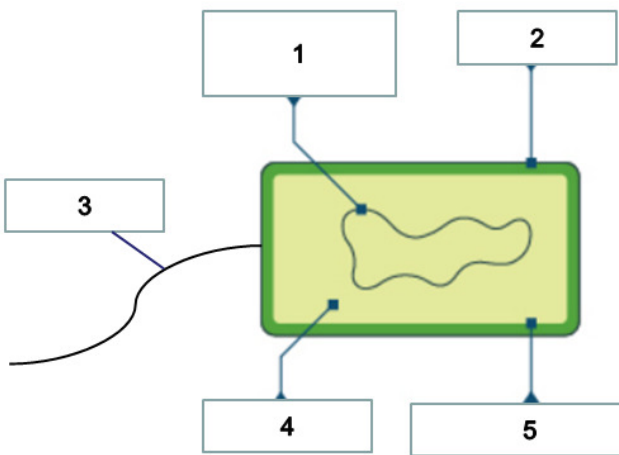
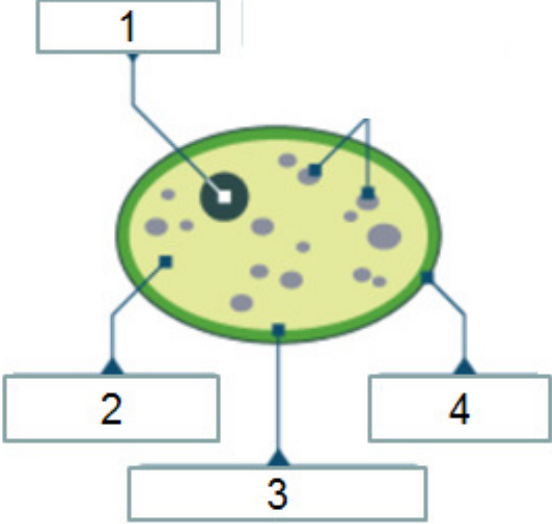


## Flashcards B2.1 Cells

Name the type of cell below	Animal cell
Identify the parts of the cell (5)  	1. Cell membrane 2. Mitochondria 3. Cytoplasm 4. Nucleus 5. Ribosomes
Name the type of cell below	Plant cell
Identify the parts of the cell (8)  	6. Cell Wall 7. Cell membrane 8. Cytoplasm 9. Mitochondria 10. Chloroplast 11. Nucleus 12. Ribosomes 13. Vacuole
Give the function of the cell membrane	Controls the passage of substances into and out of cells
Give the function of the nucleus	Controls the activities of the cell
Give the function of the cytoplasm	Where most chemical reactions take place
Give the function of the mitochondria	Where energy is released from aerobic respiration

Give the function of the ribosomes	Where protein synthesis occurs
Give the function of the chloroplast	Absorb light energy to make food
Give the function of the vacuole	Filled with cell sap
Give the function of the cell wall and say what it's made of (2)	Strengthens the cell and made of cellulose
What happens when a cell differentiates?	It becomes specialised/ adapted to carry out a specific function
Why do cells differentiate during the development of multicellular organisms?	To become specialised so that they can carry out different functions
Define 'tissue'	An aggregation/ group of similar cells, eg muscle.
Define 'organ'	An aggregation/ group of tissues that work together to perform a specific function, eg the stomach.
Define 'organ system'	A group of organs which work together to perform a function, eg the digestive system or the reproductive system.
What are human stem cells?	Cells which have the ability to develop into any kind of human cell.
Name the 2 places where human stem cells are found	Embryos and adult bone marrow
What could human stem cells potentially be used for and why? (2)	To treat conditions such as paralysis as they can be made to differentiate into many different types of cells, eg nerve cells
When do most types of animal cells differentiate?	At an early stage
When do most types of plant cells differentiate?	They retain the ability to differentiate throughout life
What is cell division mostly restricted to in mature animals? (2)	Repair of tissues and replacement of lost/ dead cells
Name 2 types of single celled organisms	Bacteria and yeast
Name the type of cell below	A bacterial cell
Identify the parts of the cell (5)	<ol style="list-style-type: none"> <li>1. Genes NOT in a distinct nucleus</li> <li>2. Cell wall</li> <li>3. Flagellum (not always present)</li> <li>4. Cytoplasm</li> <li>5. Membrane</li> </ol>



Name the type of cell below	Yeast cell
<p>Identify the parts of the cell (4)</p>  <p>The diagram shows a cross-section of a yeast cell. It is roughly oval-shaped with a thick outer boundary (cell wall) and a thinner inner boundary (cell membrane). Inside, there is a large, dark, circular nucleus (labeled 1). The interior is filled with a granular substance (cytoplasm, labeled 2). There are several smaller, dark, circular organelles scattered throughout. The cell wall is the outermost layer (labeled 4), and the cell membrane is just inside it (labeled 3).</p>	<ol style="list-style-type: none"> <li>1. Nucleus</li> <li>2. Cytoplasm</li> <li>3. Membrane</li> <li>4. Cell wall</li> </ol>
How do dissolved substances move into and out of cells?	Diffusion
Define 'diffusion' (2)	<ol style="list-style-type: none"> <li>1. The net movement of particles in a gas or liquid</li> <li>2. from an area of high concentration to an area of low concentration.</li> </ol>
What would happen if the difference in concentration between 2 areas was increased?	The rate of diffusion would be faster
Which substance that is needed for respiration passes through cell membranes by diffusion?	Oxygen