

## Chapter 6 Model of Cells – The Basic Unit of Life

### AfL Quiz 1

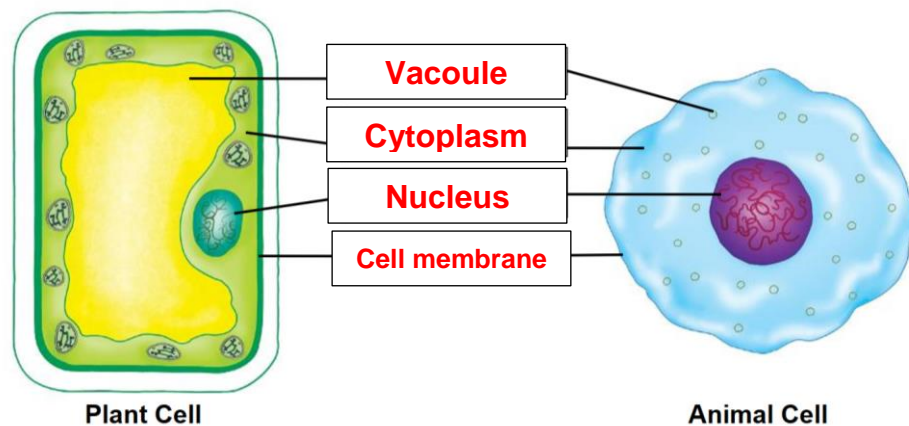
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By the end of this quiz, I should be able to:

- Describe the structure and functions of the different parts of a typical cell, including the nucleus which contains genetic material that determines heredity.
- Show an understanding that typical plant and animals cells are models used to represent their various forms.

1 All organisms are made of cells, including plants and animals.

- (a) (i) Identify the organelles present in **both** plant and animal cells in the cell models shown.



- (ii) Describe the structure and function of the cell membrane.

**The cell membrane is a thin and partially permeable membrane that controls substances entering and leaving the cell.**

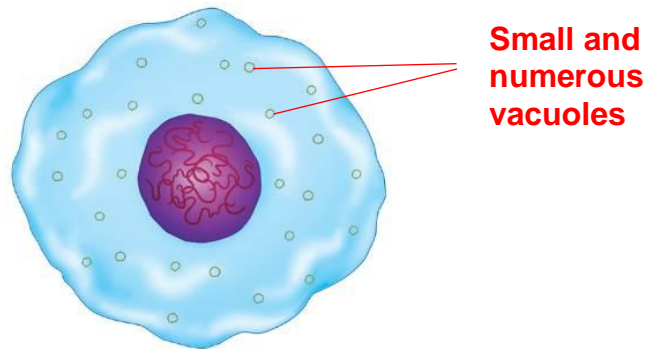
- (b) (i) Name an organelle present in **both** plant and animal cells that controls all cell activity.

**Nucleus.**

- (ii) Describe the other functions of the organelle named in (b)(i)

**It is responsible for cell reproduction / cell division.  
Reject: Contains chromosomes which carry genetic information  
(this is a structure not function)**

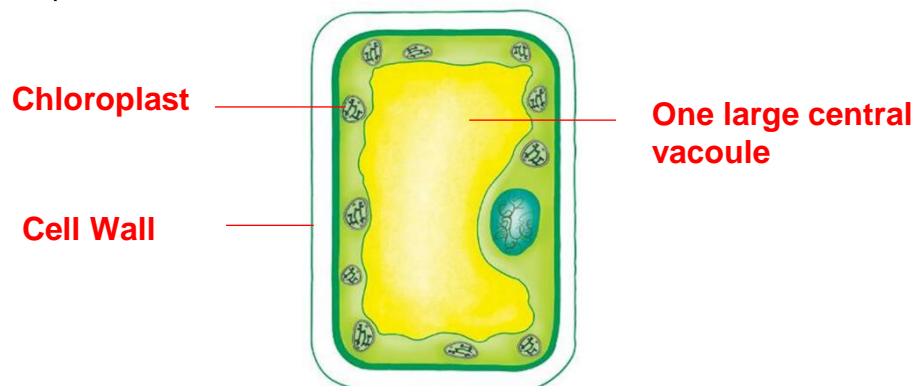
2 (a) A typical animal cell is shown.



- (i) On the diagram, label the structure only found in an animal cell.
- (ii) Describe the structure and function of the structure named in (a)(i).

Structure	Function
Fluid-filled space found in the cytoplasm.	Stores water and other nutrients.

(b) A typical plant cell is shown.

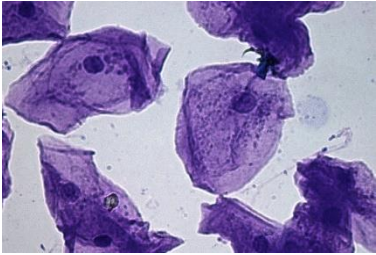
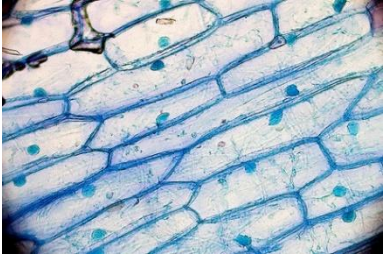
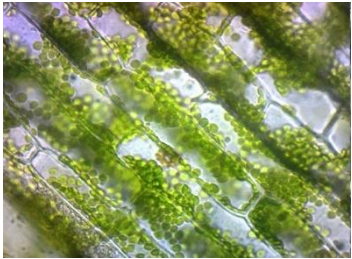
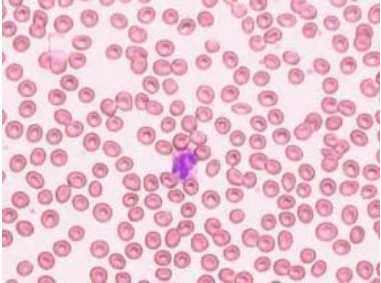


- (i) On the diagram, label the structures only found in a plant cell.
- (ii) Describe the structure and function of the cell structure responsible for photosynthesis.

Structure	Function
Chloroplast contains green pigment, chlorophyll	Absorbs sunlight for photosynthesis

3 The following diagrams show cells under an electron microscope.

Identify if each cell is a plant or animal cell and explain why.

	
<p>Plant or animal cell? <b>Animal</b></p> <p>Reason: <b>Absence of cell wall / chloroplast / one large central vacuole</b></p>	<p>Plant or animal cell? <b>Plant</b></p> <p>Reason: <b>Presence of cell wall / one large central vacuole</b></p>
	
<p>Plant or animal cell? <b>Plant</b></p> <p>Reason: <b>Presence of cell wall / chloroplast / one large central vacuole.</b></p>	<p>Plant or animal cell? <b>Animal</b></p> <p>Reason: <b>Absence of call wall / one large central vacuole / choroplast</b></p>

<b>Self-Evaluation:</b> I am able to:	<b>Yes</b>	<b>No</b>
describe the structure and functions of the different parts of a typical cell, including the nucleus which contains genetic material that determines heredity		
show an understanding that typical plant and animals cells are models used to represent their various forms		

Questions I still have:

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