Cell Biology

Describe the function of each organelle:

Organelle	Function
Nucleus	
Cell Membrane	
Cytoplasm	
Cell Wall	
Chloroplasts	
Vacoule	
Mitochondria	
Ribosomes	

In the space below draw and label an animal and plant cell.

Animal

Plant

Complete the table to show the differences between eukaryotes and prokaryotes

	Prokaryotes	Eukaryotes
DNA		
DNA enclosed in a nucleus		
Cell membrane		
Cell wall		
Plasmid DNA in cytoplasm		
Membrane-bound organelles		

Describe the process of diffusion

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Describe the process of Osmosis. Try and use keywords such as hypertonic and hypotonic.

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In the space draw and label a bacterial cell

Bacteria

For each specialised cell below, explain how they are adapted to their function

Specialised Cell	Explanation of adaptation
Red Blood Cell	
Ciliated Cell	
Pallisade Cell	
Sperm Cell	
Nerve Cell	
Root Hair Cell	

Name the two types of stem cells.

1……
2……

What is the function of:
Flagella

Slime Capsule

Explain how we get embryonic stem cells, why it is controversial and what problems could patients face from it.

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Write down the equation for magnification below in an equation triangle. Label each quantity.

State the advantages of an electron microscope over a light microscope.

Write out in standard form how many of each are in 1m

1mm

1µm

1nm

What is therapeutic cloning?

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