

# Year 9: ASK Yourself!

Subject: Biology  
Unit: 1 - Cell Biology

	Launching 1-2	Developing 3-4	Progressing 5-6	Mastering 7-9
<b>S</b> kills				
	<p>Be able to recognise images of cells. Be able to use a light microscope. Be able to calculate percentages.</p>	<p>Be able to draw and interpret images of cells. Be able to demonstrate an understanding of the scale and size of cells. Be able to carry out magnification calculations.</p>	<p>Know and be able to use aseptic techniques. Use models and analogies to develop explanations of cell division. Be able to calculate percentage gain and loss of mass.</p>	<p>Calculate cross sectional areas using <math>\pi r^2</math> Evaluate practical risks and benefits as well as social and ethical issues of the stem cells in medical research.</p>
<b>K</b> knowledge				
	<p>To know the structure of eukaryotic plant and animal cells. To be able to name cell organelles and know their function. Be able to describe diffusion and osmosis.</p>	<p>Be able to describe and explain differences between prokaryotic and eukaryotic cells. Be able to explain how the structure of specialised cells relate to their function. Be able to describe how substances are transported in to and out of cells by diffusion, osmosis and active transport.</p>	<p>Be able to explain the importance of cell specialisation. Be able to explain mitosis. Know what stem cells are and how they can be utilised. Be able to explain how substances are transported in to and out of cells by diffusion, osmosis and active transport.</p>	<p>Explain where diffusion, osmosis and active transport occur in living organisms and explain differences between the processes. To understand how structures in organisms are adapted for exchanging materials.</p>