

AQA Biology		Covered in Lesson	Diagnosis			Revised		
B1.1 Cell biology			R	A	G	1	2	3
B1.1.1 Cell structure	Use the terms 'eukaryotic' and 'prokaryotic' to describe types of cells							
	Describe the features of bacterial (prokaryotic) cells							
	Demonstrate an understanding of the scale and size of cells and be able to make order of magnitude calculations, inc standard form							
	Recall the structures found in animal and plant (eukaryotic) cells inc algal cells							
	Use estimations and explain when they should be used to judge the relative size or area of sub-cellular structures							
	<i>Required practical 1: use a light microscope to observe, draw and label a selection of plant and animal cells</i>							
	Describe the functions of the structures in animal and plant (eukaryotic) cells							
	Describe what a specialised cell is, including examples for plants and animals							
	Describe what differentiation is, including differences between animals and plants							
	Define the terms magnification and resolution							
	Compare electron and light microscopes in terms of their magnification and resolution							
	Carry out calculations involving magnification using the formula: magnification = size of image/ size of real object -inc standard form							
	Bio ONLY : Describe how bacteria reproduce and the conditions required							
	Bio ONLY : Describe how to prepare an uncontaminated culture							
	Bio ONLY : Calculate cross-sectional areas of colonies or clear areas around colonies using πr^2							
	Bio ONLY : Calculate the number of bacteria in a population after a certain time if given the mean division time							
	Bio & HT ONLY : Express answers for last two points in standard form							
<i>Required practical 2: investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition</i>								
B1.1.2 Cell Division	Describe how genetic information is stored in the nucleus of a cell (inc genes & chromosomes)							
	Describe the processes that happen during the cell cycle, including mitosis (inc recognise and describe where mitosis occurs)							
	Describe stem cells, including sources of stem cells in plants and animals and their roles							
	Describe the use of stem cells in the production of plant clones and therapeutic cloning							
	Discuss the potential risks, benefits and issues with using stem cells in medical research/treatments (inc diabetes and paralysis)							
B1.1.3 Transport in cells	Describe the process of diffusion, including examples							
	Explain how diffusion is affected by different factors							
	Define and explain "surface area to volume ratio", and how this relates to single-celled and multicellular organisms (inc calculations)							
	Explain how the effectiveness of an exchange surface can be increased, inc examples of adaptations for small intestines, lungs, gills roots & leaves							
	Describe the process of osmosis (inc calculation of water uptake & percentage gain and loss of mass of plant tissue)							
	<i>Required practical 3: investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue</i>							
	Describe the process of active transport, including examples - gut and roots							
Explain the differences between diffusion, osmosis and active transport								