Edexcel Single Biology (1BI0) from 2016 Topic B1				
Topic	**Student Checklist**	**R**	**A**	**G**
Topic 1 – Key concepts in biology	Explain how the sub-cellular structures of eukaryotic and prokaryotic cells are related to their functions, including: animal, plant & bacteria			
	Explain how specialised cells are adapted to their functions, including: sperm, egg and ciliated epithelial cells			
	Explain how changes in microscope technology, including electron microscopy, have enabled us to see cell structures with more clarity and detail than in the past			
	Demonstrate an understanding of number, size and scale, including the use of estimations and explain when they should be used			
	Demonstrate an understanding of the relationship between quantitative units in relation to cells, including: milli, micro, nano & pico			
	HT ONLY: Complete calculations with numbers written in standard form			
	Core Practical: Investigate biological specimens using microscopes, including magnification calculations and labelled scientific drawings from observations			
	Explain the mechanism of enzyme action including the active site and enzyme specificity			
	Explain how enzymes can be denatured due to changes in the shape of the active site			
	Explain the effects of temperature, substrate concentration and pH on enzyme activity			
	Core Practical: Investigate the effect of pH on enzyme activity			
	Demonstrate an understanding of rate calculations for enzyme activity			
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	Explain the importance of enzymes as biological catalysts in the synthesis and breakdown of carbohydrates, fats and proteins			
	Bio ONLY: Core Practical: Investigate the use of chemical reagents to identify starch, reducing sugars, proteins and fats			
	Bio ONLY: Explain how the energy contained in food can be measured using calorimetry			
	Explain how substances are transported into and out of cells, including by diffusion, osmosis and active transport			
	Core Practical: Investigate osmosis in potatoes			
	Calculate percentage gain and loss of mass in osmosis			