Science Department Stewards Academy **ASSESSMENT FEEDBACK** Year 9 Combined Science (BIOLOGY)

Attainment Band :	**B1 Cell Biology (AQA)**
	Knowledge and Understanding
Yellow Plus/ Yellow	Carry out order of magnitude calculations when comparing cell size; calculate with numbers in standard form. Explain limitations of light microscopy and advantages of electron microscopy. Explain why scientists have now separated organisms into three domains using evidence from chemical analysis. Describe the events of the cell cycle and explain the synthesis of new sub-cellular components and DNA. Understand size and scale in the components of organ systems. Evaluate scientific and ethical issues involved with stem cell therapies. Use symbol equations for aerobic and anaerobic respiration and be able to compare the two processes.
Blue	Understand the size and scale of cells and be able to use and convert units. Calculate the magnification of a light or electron micrograph. Describe the differences between eukaryotic and prokaryotic cells. Describe how chromosomes double their DNA and are pulled to opposite ends of the cell, before the cytoplasm divides, during mitosis. Explain the importance of differentiation and explain how cells are specialised for their functions. Understand the potential of stem cell therapies. Use word equations to describe the processes of aerobic and anaerobic respiration.
Green	Describe the functions of the sub-cellular structures found in eukaryotic cells. Calculate magnification used by a light microscope using eyepiece and objective lens magnifications. Describe the structure of a prokaryotic cell. Recall that cells must divide for growth and replacement of cells. Recall that organism development is based on cell division and cell specialisation. Recall where stem cells are found. Recall that organisms can respire with oxygen (aerobic respiration) or without oxygen (anaerobic respiration).
White	Some elements of the above have been achieved