

Unit	Section	Content
Cell Biology	4.1.2 Cell Division	-How DNA is arranged as chromosomes -Series of stages in the cell cycles inc. mitosis -Definition and uses of stem cells
	Required practical 1: use of light microscope	-How to prepare slides -How to use the microscope to improve field of view, clarify, change magnification - Microscopy calculations
	4.2.2 Animal tissues, organs and organ systems	- Functions of tissues and organs in the digestive system -Digestive enzymes -Functions of tissues and organs in the circulatory system -Pathway of blood through the heart -adaptations of components of the blood -risk factors of non-communicable diseases
Organisation	Required practical 3: test for carbohydrates, lipids and proteins	-Reagent and positive result for carbohydrates, proteins and lipids
Infection and response	4.3.1 Communicable Diseases	-definition and examples of pathogen -how viruses and bacteria make us ill -examples of diseases caused by each type of pathogen -human defence mechanisms -what happens in a vaccine -comparing antibody production after active and passive immunity -role of antibiotics -stages in the development of drugs
Bioenergetics	4.4.1 Photosynthesis	-photosynthesis equation -factors affecting rate of photosynthesis
	Required Practical 5: effect of light intensity on rate of photosynthesis	-independent, dependent, control variables -How to measure the dependent variable -method -analysing results