

Blue Pathway								
Purple Pathway								
Orange Pathway								
	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10	Step 11	Step 12
AO1 Remember	Distinguish between communicable and non-communicable diseases	Describe barriers to infection and how white blood cells phagocytose invaders	Describe factors affecting physical and mental health	Describe symptoms caused by pathogenic MO's	Explain how the incidence of certain diseases can be reduced	Explain how some pathogenic MO's affect humans and plants	Discuss scientific and economic barriers to development of new antibiotics	Compare and contrast bacterial and viral diseases
	Define pathogens			Describe how transmission of MO's can be reduced	Describe how plant diseases can be detected and the methods used to identify plant pathogens	Explain antibody production in an infection or vaccination		
	Recall uses of vaccines & antibiotics	Describe defences of plants	Explain how plant disease and ion deficiency is caused and their symptoms	Explain the role of white blood cells and antibiotics, and how vaccinations induce immunity		Define mAbs, describe its production of mAb from hybridomas and uses	Describe methods to produce mAbs and explain uses	
AO2 Application	Describe impact of exercise, asthma and smoking on respiratory system	Use theories to make simple explanations of events.	Interpret data and use it to support evidence.	Translate data on incidence of disease, identify correlations / causal links	Construct and interpret graphical data about health	Explain development of antibiotic resistance and interpret data about it	Interpret and evaluate global and UK data on the use of vaccinations	Use models to predict future effects of antibiotic resistance
	Sometimes use data to support evidence.			Use standard form	Apply knowledge effectively in a range of contexts.	Explain shape of yeast/bacterial graph curve	Calculate populations size using given information	Discuss scientific and ethical issues with mAbs
AO3 Analyse and Evaluate	Evaluate basic information to develop simple arguments and explanations.	Write reasoned explanations of a conclusion based on the experimental data	Evaluate effects of recreational drugs	Interpret data and evaluate impact and effects of exercise, asthma and smoking on respiratory system	Suggest further questions that may arise from results of investigations and data analysis and evaluation.	Evaluate information systematically to develop arguments and explanations.	Interpret/evaluate data about factors associated with diseases & cancer	Evaluate strategies for reducing incidence of disease
							Interpret/evaluate data on methods used to control and treat new diseases	
AO3 Experimental Procedures	Identify variables in an investigation	Explain importance of sampling technique and control variables	Correctly use an appropriate number of decimal places	Carry out & describe method for investigating effectiveness of antibiotics	Make more complex and quantitative predictions using scientific knowledge and understanding	Plan valid and reliable experimental methods to test a hypothesis.	Explain accuracy, precision, resolution and reliability	Use all the correct scientific language throughout.
		Accurately make and record observations and measurements	Select and apply appropriate experimental techniques	Describe aseptic technique			Justify the choice of experimental methods and apparatus	