

Personalised Learning Checklists AQA Biology Paper 1 Separate Science and Combined Science

AQA Biology (8461) from 2016 Topic B4.1 Cell biology				
Topic	Student Checklist	R	A	G
4.1.1 Cell structure	Animal and plant cells			
	Microscopy			
	Eukaryotes and prokaryotes			
	Cell specialisation and Cell differentiation			
	<i>Required practical 1: use a light microscope to observe, draw and label a selection of plant and animal cells</i>			
	Binary Fission			
	Culturing microorganisms			
	<i>Required practical 2: investigate the effect of antiseptics or antibiotics on bacterial growth using agar plates and measuring zones of inhibition</i>			
4.1.2 Cell division	Chromosomes			
	Mitosis and the cell cycle			
	Growth of microorganisms (related to cell cycle/binary fission)			
	Stem cells			
4.1.3 Transport in cells	Diffusion			
	Osmosis			
	Active transport			
	<i>Required practical 3: osmosis-investigate the effect of a range of concentrations of salt or sugar solutions on the mass of plant tissue</i>			

AQA Biology (8461) from 2016 Topic B4.2 Organisation				
Topic	Student Checklist	R	A	G
4.2.1 Principles of organisation & 4.2.2 Animal tissues, organs and organ systems	Organisational hierarchy			
	The human digestive system			
	Biological molecules			
	Properties of enzymes			
	Human digestive enzymes			
	How the lungs are adapted for efficient gas exchange			
	Blood			
	Structure and function of arteries, veins and capillaries			
	The heart			
	Coronary heart disease (non-communicable disease)			
	Health issues and effect of lifestyle on non-communicable diseases			
	Cancer			
	<i>Required practical 4: use qualitative reagents to test for a range of carbohydrates, lipids and proteins</i>			
<i>Required practical 5: investigate the effect of pH on the rate of reaction of amylase enzyme</i>				
4.2.3 Plant tissues	Plant organs and Plant tissues			
	Plant transport: transpiration and translocation			

Topics in red are Separate Science only

AQA Biology (8461) from 2016 Topic B4.3 Infection and response				
Topic	Student Checklist	R	A	G
4.3.1 Communicable diseases	Communicable diseases			
	Viral, bacterial, fungal diseases			
	Protist diseases			
	Human defence systems			
	Vaccination			
	Antibiotics and painkillers			
	Discovery and development of drugs			
4.3.2 Monoclonal antibodies	<i>Producing monoclonal antibodies</i>			
	<i>Uses of monoclonal antibodies</i>			
4.3.3 Plant disease	<i>Plant diseases</i>			
	<i>Identification of plant diseases (HT only)</i>			
	<i>Plant defence responses</i>			

AQA Biology (8461) from 2016 Topic B4.4 Bioenergetics				
Topic	Student Checklist	R	A	G
4.4.1 Photosynthesis	Photosynthetic reaction			
	Rate of photosynthesis			
	Limiting factors (HT only)			
	Inverse square rule			
	Uses of glucose from photosynthesis			
	<i>Required practical 6: investigate the effect of light intensity on the rate of photosynthesis using an aquatic organism such as pondweed</i>			
4.4.2 Respiration	Aerobic respiration			
	Anaerobic respiration			
	Response to exercise			
	Metabolism			

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