



AQA SEPARATE SCIENCE CHECKLISTS

Paper 1

Biology

“Student’s today; Scientists for life”

Triple Biology 1 *Italics- TRIPLE ONLY*

Cell Biology

	Content	RAG	Revision guide pages		
			COMB F	COMB H	TRIPLE BIOL
4.1.1.1	Eukaryotes and prokaryotes		11	11	11
4.1.1.2	Animal and plant cells		11	11	11
4.1.1.5	Microscopy		12	12	12
RP 1	★Required practical – using a light microscope		13	13	13
4.1.1.3	Cell specialisation		14	14	14
4.1.1.6	<i>Culturing microorganisms (triple)</i>				16
RP 2	★Required practical – Microbiology (triple)				17-18
4.1.1.4	Cell differentiation		14	14	14
4.1.2.1	Chromosomes		14	14	14
4.1.2.2	Mitosis and the cell cycle		15	15	15
4.1.2.3	Stem cells		16	16	19
4.1.3.1	Diffusion		17	17	20
4.1.3.2	Osmosis		18	18	21
RP 3	★Required practical – osmosis		18	18	21
4.1.3.3	Active transport		19	19	22
4.1.3.1	Exchange surfaces		20-22	20-22	23-25

Organisation

4.2.1	Animal tissues, organs and organ systems		24	24	27
4.2.2.1	The human digestive system		24	28	30-31
4.2.2.1	Enzymes		25-27	25-27	28
RP 4	★Required practical – food tests		28	29	32
RP 5	★Required practical – enzymes		26	26	29
4.2.2.2	The heart and blood vessels (heart)		30-31	31-32	34-35
4.2.2.2	The heart and blood vessels (lungs)		29	30	33
4.2.2.3	Blood		32	33	36
4.2.2.4	Coronary heart disease		33-34	34-35	37-38
4.2.2.5	Health issues		35	36	39
4.2.2.6	The effect of lifestyle on some non-communicable diseases		36	37	40
4.2.2.7	Cancer		37	38	41
4.2.3.1.	Plant tissues		38	39	42
4.2.3.2	Plant organ system		39-40	40-41	43-44

Infection and response




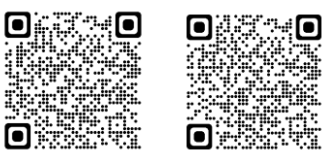








4.3.1.1	Communicable infectious disease		42	43	46
4.3.1.2	Viral diseases		44	44	47
4.3.1.3	Bacterial diseases		43	44	48
4.3.1.4	fungal diseases		45	44	47
4.3.1.5	Protist diseases		45	44	47
4.3.1.6	Human defence systems		46	46	49
4.3.1.7	Vaccination		47	47	50
4.3.1.8	Antibiotics and painkillers		48	48	51
4.3.1.9	Discovery and development of drugs		49	49	52
4.3.2.1	<i>Producing monoclonal antibodies (triple)</i>				53
4.3.2.2	<i>Use of monoclonal antibodies (triple)</i>				54
4.3.3.1	<i>Detection and identification of plant diseases (triple)</i>				55
4.3.3.2	<i>Plant defence responses (triple)</i>				55






Bioenergetics

4.4.1.1	Photosynthetic reaction		50	50	57
4.4.1.2	Rate of photosynthesis		51-52	51-52	58-60
RP 6	★Required practical – photosynthesis		52	52	59
4.4.1.3	Uses of glucose from photosynthesis		50	50	57
4.4.2.1	Aerobic respiration		54	55	62
4.4.2.1	Anaerobic respiration		54	55	62
4.4.2.2	Response to exercise		55	56	63
4.4.2.3	Metabolism		53	54	61









Triple Biology 1 *Italics- TRIPLE ONLY*

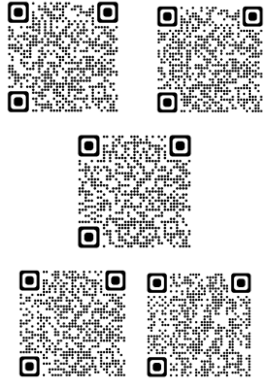




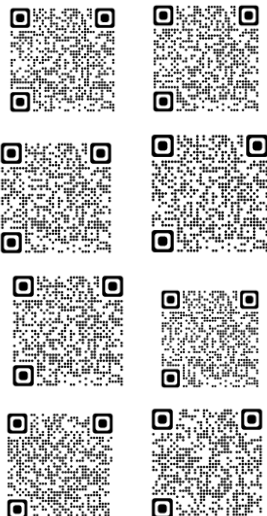
Cell Biology

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4.1.1.1	Eukaryotes and prokaryotes				
4.1.1.2	Animal and plant cells				
4.1.1.5	Microscopy				
RP 1	★Required practical – using a light microscope				
4.1.1.3	Cell specialisation				
4.1.1.6	<i>Culturing microorganisms (triple)</i>				
RP 2	★Required practical – Microbiology (triple)				
4.1.1.4	Cell differentiation				
4.1.2.1	Chromosomes				
4.1.2.2	Mitosis and the cell cycle				
4.1.2.3	Stem cells				
4.1.3.1	Diffusion				











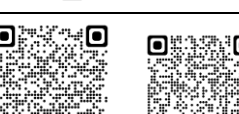

4.1.3.2	Osmosis		
RP 3	★ Required practical – osmosis		
4.1.3.3	Active transport		
4.1.3.1	Exchange surfaces		 





















Organisation

4.2.1	Animal tissues, organs and organ systems		
4.2.2.1	The human digestive system		   
4.2.2.1	Enzymes		 
RP 4	★ Required practical – food tests		
RP 5	★ Required practical – enzymes		
4.2.2.2	The heart and blood vessels (heart)		   
4.2.2.2	The heart and blood vessels (lungs)		 
4.2.2.3	Blood		  

4.2.2.4	Coronary heart disease		
4.2.2.5	Health issues		
4.2.2.6	The effect of lifestyle on some non-communicable diseases		
4.2.2.7	Cancer		
4.2.3.1.	Plant tissues		
4.2.3.2	Plant organ system		

Infection and response

4.3.1.1	Communicable infectious disease		
4.3.1.2	Viral diseases		
4.3.1.3	Bacterial diseases		
4.3.1.4	fungual diseases		
4.3.1.5	Protist diseases		
4.3.1.6	Human defence systems		
4.3.1.7	Vaccination		
4.3.1.8	Antibiotics and painkillers		
4.3.1.9	Discovery and development of drugs		
4.3.2.1	<i>Producing monoclonal antibodies (triple)</i>		
4.3.2.2	<i>Use of monoclonal antibodies (triple)</i>		
4.3.3.1	<i>Detection and identification of plant diseases (triple)</i>		

			 
4.3.3.2	<i>Plant defence responses (triple)</i>		 
Bioenergetics			
4.4.1.1	Photosynthetic reaction		
4.4.1.2	Rate of photosynthesis		   
RP 6	★ Required practical – photosynthesis		  
4.4.1.3	Uses of glucose from photosynthesis		
4.4.2.1	Aerobic respiration		 
4.4.2.1	Anaerobic respiration		 
4.4.2.2	Response to exercise		 
4.4.2.3	Metabolism		



**AQA SEPARATE SCIENCE
CHECKLISTS
8461 Biology
Paper 2**


























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Triple Biology 2 *Italics- TRIPLE ONLY*
























	Content	RAG	Revision guide pages		
			COMB F	COMB H	TRIPLE
Homeostasis and response					
4.5.1	Importance of homeostasis		57	58	65
4.5.2.1	Structure and function of the nervous system		58-9	59-60	66-67
RP 7	★ Required practical – reaction time		60	61	68
4.5.2.2	<i>The brain (triple)</i>				69
4.5.2.3	<i>The eye (triple)</i>				70-1
4.5.2.4	<i>Control of body temperature (triple)</i>				72
4.5.3.1	Human endocrine system		61	62	73
4.5.3.2	Control of blood glucose concentration		62	63	74
4.5.3.3	<i>Maintaining water and nitrogen balance in the body (triple)</i>				75-6
4.5.3.4	Hormones in the reproductive system		63	64	77
4.5.3.5	Contraception		64-65	65-66	78
4.5.3.6	The use of hormones to treat fertility HT			66	79
4.5.3.7	Negative feedback HT			67	80
4.5.4.1	<i>Plant hormones – control and coordination (triple)</i>				81
RP 8	★ Required practical germination (triple)				81
4.5.4.2	<i>Use of plant hormones (triple)</i>				82
Inheritance, variation and evolution					
4.6.1.1	Sexual and asexual reproduction		67	69	87
4.6.1.2	Meiosis		68	70	88
4.6.1.3	<i>Advantages/disadvantages of sexual/asexual reproduction (triple)</i>				89
4.6.1.4	DNA and the genome		66	68	84
4.6.1.5	<i>DNA structure (triple)</i>				85-6
4.6.1.6	Genetic inheritance		70	72-3	91-2
4.6.1.7	Inherited disorders		71-2	74	93
4.6.1.8	Sex determination		69	71	90
4.6.2.1	Variation		73	75	94-5
4.6.2.2	Evolution		74-6	76	96
4.6.2.3	Selective breeding		77	77	98
4.6.2.4	Genetic engineering		78	78	99
4.6.2.5	<i>Cloning (triple)</i>				100
4.6.3.1	<i>Theory of evolution (triple)</i>				97
4.6.3.2	<i>Speciation (triple)</i>				102
4.6.3.3	<i>The understanding of genetics (triple)</i>				94
4.6.3.4	Evidence for evolution		79	79	101
4.6.3.5	Fossils		79	79	101
4.6.3.6	Extinction		74	76	96
4.6.3.7	Resistant bacteria		75-76	80	103
4.6.4	Classification		80-81	81	104
























	Content	RAG	Revision guide pages		
			COMB F	COMB H	TRIPLE
Ecology					
4.7.1.1	Communities		83	83	106
RP 9	★ Required practical – field investigations		87-88	87-88	110-111
4.7.1.2	Abiotic factors		84	84	107
4.7.1.3	Biotic factors		84	84	107
4.7.1.4	Adaptations		85	85	108
4.7.2.1	Levels of organisation		86	86	109
4.7.2.2	Carbon cycle		90	90	113
4.7.2.2	Water cycle		89	89	112
4.7.2.3	Decomposition		90	90	114
RP 10	★ Required practical – decay (triple)				115
4.7.2.4	<i>Impact of environmental change (triple)</i>				116-119
4.7.3.1	Biodiversity		91	91	116
4.7.3.2	Waste management		91	91	116
4.7.3.3	Land use		93	93	118
4.7.3.4	Deforestation		93	93	118
4.7.3.5	Global warming		92	92	117
4.7.3.6	Maintaining biodiversity		94	94	119
4.7.4.1	<i>Trophic levels (triple)</i>				120
4.7.4.2	<i>Pyramids of biomass (triple)</i>				121
4.7.4.3	<i>Transfer of biomass (triple)</i>				122
4.7.5.1	<i>Factors affecting food security (triple)</i>				123
4.7.5.2	<i>Farming techniques (triple)</i>				123
4.7.5.3	<i>Sustainable fisheries (triple)</i>				123
4.7.5.4	<i>Role of biotechnology (triple)</i>				124
























Triple Biology 2 *Italics- TRIPLE ONLY*


	Content	RAG	QR Codes
Homeostasis and response			
4.5.1	Importance of homeostasis		
4.5.2.1	Structure and function of the nervous system		 
RP 7	★ Required practical – reaction time		
4.5.2.2	<i>The brain (triple)</i>		 
4.5.2.3	<i>The eye (triple)</i>		  
4.5.2.4	<i>Control of body temperature (triple)</i>		
4.5.3.1	Human endocrine system		   
4.5.3.2	Control of blood glucose concentration		  
4.5.3.3	<i>Maintaining water and nitrogen balance in the body (triple)</i>		     
4.5.3.4	Hormones in the reproductive system		 

4.5.3.5	Contraception			
4.5.3.6	The use of hormones to treat fertility HT			
4.5.3.7	Negative feedback HT			
4.5.4.1	Plant hormones – control and coordination (triple)			
RP 8	★Required practical germination (triple)			
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Inheritance, variation and evolution				
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4.6.1.2	Meiosis			
4.6.1.3	Advantages/disadvantages of sexual/asexual reproduction (triple)			
4.6.1.4	DNA and the genome			
4.6.1.5	DNA structure (triple)			
4.6.1.6	Genetic inheritance			

			
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4.6.2.4	Genetic engineering		   
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4.7.4.3	Transfer of biomass (triple)		 
4.7.5.1	Factors affecting food security (triple)		 
4.7.5.2	Farming techniques (triple)		

4.7.5.3	<i>Sustainable fisheries (triple)</i>		
4.7.5.4	<i>Role of biotechnology (triple)</i>		