KS4 Curriculum Map – Biology

Year 10 Combined Science	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	*Topic 2 – Plant Organisation* *Topic 4 Bioenergetics*	*Topic 4 Bioenergetics*	*Start – topic 5 homeostasis*	Complete topic 5 Homeostasis	*Start topic 6 – inheritance variation and evolution*	*Exam revision* *Complete topic 6*
Assessment	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	**Exam (Paper 1 mock)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	**Exam (Topics 1-5)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons
Link with GCSE Skills and AOs	Demonstrate knowledge and understanding of the content developed in each topic, including the associated mathematical and practical skills, and ability to construct and develop a sustained line of reasoning which is coherent, relevant, substantiated, and logically structured. AO1: Demonstrate knowledge and understanding of scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of scientific ideas; scientific inquiry, techniques, and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.					
Careers	Scientific Illustrator, Science Policy Advisor, Forensic Biologist, Pathologist, Epidemiologist, Conservation Biologist, Genetic Counsellor, Geneticist, Neurobiologist, Doctor, Nurse, Midwife					
Enrichment /Wider curriculum	Interventions after school Talks by undergraduate medics. Imperial outreach program Royal Society of Surgeon trip					

	Trip to Seed Bank					
Year 10 Separate	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Topic	*Topic 2 – Plant Organisation* *Topic 4 Bioenergetics*	*Complete topic 4 Bioenergetics*	*Start – topic 5 homeostasis*	Complete topic 5 - Homeostasis	*Complete topic 5 and start topic 6 – inheritance variation and evolution*	*Exam revision* *Complete topic 6*
Assessment	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	**Exam (Paper 1 mock)** Extended response exam questions (literacy, numeracy, analysis skills) Including the required practicals (RPs): Reaction time AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons	**Exam (Topics 1-5)** Topic tests Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons
Link with GCSE Skills and AOs	Demonstrate knowledge and understanding of the content developed in each topic, including the associated mathematical and practical skills, and ability to construct and develop a sustained line of reasoning which is coherent, relevant, substantiated and logically structured. AO1: Demonstrate knowledge and understanding of: scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of: scientific ideas; scientific enquiry, techniques and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.					

Careers	Scientific Illustrator, Science Policy Advisor, Forensic Biologist, Pathologist, Epidemiologist, Conservation Biologist, Genetic Counsellor, Geneticist, Neurobiologist, Doctor, Nurse, Midwife
Enrichment /Wider curriculum	Interventions after school Talks by undergraduate medics. Imperial outreach program Royal Society of Surgeon trip Trip to Seed Bank

Y11 Combined Science- Biology

Year 11 Combined Science	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Topic 7 Ecology (Paper 2) Including the required practicals (RPs): Ecological sampling	Continue Topic 7 Ecology (Paper 2)	Revision of Topic 5 Homeostasis Revision of Topic 6 Inheritance, Variation and Evolution	Revision of paper 1 (Topics 1-4) and exam question practice Including RPs Microscopy, Osmosis	Revision of paper 1 (Topics 1-4) and exam question practice Including RPs: Food Tests, Enzymes, Photosynthesis	**EXAM SEASON**
Assessment	Assessment on Topic 6 from Y10 Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	**Exam Week at the beginning of Autumn Term (Exam paper including topics 4, 5, and 6)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	Topic test on Topic 7 Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	**Exam Week at the beginning of Spring Term 2 (Full Biology Paper 2 – topics 5 to 7)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	Full Biology paper 1 -– topics 1 to 4 in class (**no data required for Go4schools)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	

Careers	Ecologist Conservation Biologist Wildlife Biologist Marine Biologist Environmental Scientist Forest Ecologist Restoration Ecologist Climate Change Analyst Fisheries Biologist Environmental Consultant
Skills and AOs	Demonstrate knowledge and understanding of the content developed in each topic, including the associated mathematical and practical skills, and ability to construct and develop a sustained line of reasoning which is coherent, relevant, substantiated, and logically structured. AO1: Demonstrate knowledge and understanding of scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of scientific ideas; scientific inquiry, techniques and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.
Revision	Weekly after school revision sessions

Y11 Separate Science- Biology

Year 11 Separate Science	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Topic 7 Ecology (Paper 2)	Continue Topic 7 Ecology (Paper 2)	Revision of Topic 5 Homeostasis Revision of Topic 6 Inheritance, Variation and Evolution, Including the required practicals (RPs): Reaction Time, Plant Hormones.	Revision of paper 1 (Topics 1-4) and exam question practice Including RPs: Microscopy, Culturing microorganisms, Osmosis	Revision of paper 1 (Topics 1-4) and exam question practice Including RPs: Food Tests, Enzymes, Photosynthesis	**EXAM SEASON**
Assessment	Assessment on Topics 6 from Y10 Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	**Exam Week at the beginning of Autumn Term 2 (Topics 4, 5 and 6)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	Topic test on Topic 7 Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	**Exam Week at the beginning of Spring Term 2 (Full Biology Paper 2 – topics 5 to 7)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	Full Biology paper 1 - - topics 1 to 4 in class **(no data required for Go4schools)** Extended response exam questions (literacy, numeracy, analysis skills) AFL in lessons All assessments cover AOs1,2&3 and include spaced repetition.	

Careers	Ecologist Conservation Biologist Wildlife Biologist Marine Biologist Environmental Scientist Forest Ecologist Restoration Ecologist Climate Change Analyst Fisheries Biologist Environmental Consultant
Skills and AOs	Demonstrate knowledge and understanding of the content developed in each topic, including the associated mathematical and practical skills, and ability to construct and develop a sustained line of reasoning which is coherent, relevant, substantiated, and logically structured. AO1: Demonstrate knowledge and understanding of scientific ideas; scientific techniques and procedures. AO2: Apply knowledge and understanding of scientific ideas; scientific inquiry, techniques and procedures. AO3: Analyse information and ideas to: interpret and evaluate; make judgments and draw conclusions; develop and improve experimental procedures.
Revision	Weekly After-school revision sessions