

IB DP Biology Resources (SL + HL) - <http://bit.ly/2UfZ13N>

Gr. 12 2020-2021 Planning Doc with key dates for the year. - <https://goo.gl/Vs5rdc>

Gr. 11 2020-2021 Planning Doc with key dates for the year - <https://goo.gl/zPNiUy>

[DP Bio Guide](#) (Complete Syllabus with all Topics and syllabus points)

Two online resources <http://ib.bioninja.com.au/> , <https://www.bioknowledge.info/>

AND [Past Paper IB Exams and Mark Schemes](#) - <https://goo.gl/fn6TQY>

Here is an online version of a IB Bio textbook. <https://bit.ly/2xmTAG4>

Presentations - Core (SL) + Option C

Topic 1

1.1a - Cell Biology - <https://goo.gl/jDEgZo>

1.1b - Introduction to Cells (Microscopes and Magnification)- <https://goo.gl/LRDqVH>

1.2 - Ultrastructure of Cells - <https://goo.gl/rMdC8r>

1.3 - Membrane Structure - <https://goo.gl/jhVMtb>

1.4 - Membrane Transport - <https://goo.gl/HXpvZA>

1.5 - The origin of Cells - <https://goo.gl/cw2FPn>

1.6 - Cell Division - <https://goo.gl/tmabYq>

Topic 2

2.1 - Molecules to Metabolism - <https://goo.gl/KX2Sr3>

2.2 - Water - <https://goo.gl/KL6acJ>

2.3 - Carbohydrates and Lipids - <https://goo.gl/rgmxVh>

2.4 - Proteins - <https://goo.gl/W7dgan>

2.5 - Enzymes - <https://goo.gl/gMdNqr>

2.6 - Structure of DNA and RNA - <https://goo.gl/v6qMcP>

2.7 - DNA Replication, Transcription, and Translation - <https://goo.gl/o4s3Xp>

2.8 - Cell Respiration - <https://goo.gl/KdujaS>

2.9 - Photosynthesis - <https://goo.gl/RgbNaf>

Topic 3

3.1 - Genes - <https://goo.gl/EmtBAb>

3.2 - Chromosomes - <https://goo.gl/8datfr>

3.3 - Meiosis - <https://goo.gl/Cxi1qB>

3.4 - Inheritance - <https://goo.gl/SXztVN>

3.5 - Genetic Modification and Biotechnology - <https://goo.gl/a6Sbcy>

Topic 4

4.1 - Species, Communities and Ecosystems - <https://goo.gl/mj2bif>

4.2 - Energy Flow - <https://goo.gl/BZD22f>

4.3 - Carbon Cycling - <https://goo.gl/718cdK>

4.4 - Climate Change - <https://goo.gl/p25PyD>

Topic 5

5.1 - Evolution and Biodiversity- <https://goo.gl/BA3iNF>

5.2 - Natural Selection - <https://goo.gl/3RdXJC>

5.3 - Classification and Biodiversity - <https://goo.gl/9hySTN>

5.4 - Cladistics - <https://goo.gl/ZXu6oN>

Topic 6

- 6.1 - Digestion and Absorption - <https://goo.gl/ouEtKL>
- 6.2 - The blood system - <https://goo.gl/GpUqBZ>
- 6.3 - Defense Against Infectious Disease - <https://goo.gl/jVqM2y>
- 6.4 - Gas Exchange - <https://goo.gl/tKnwEz>
- 6.5 - Neurons and Synapses - <https://goo.gl/u6jVmG>
- 6.6 - Hormones, Homeostasis and Reproduction - <https://goo.gl/8ESmQ3>

Option C

- C.1 - Species and Communities - <https://goo.gl/YpKvJ4>
- C.2 - Communities and Ecosystems - <https://goo.gl/RaCQrF>
- C.3 - Impacts of Humans on Ecosystems - <https://goo.gl/rvLN1X>
- C.4 - Conservation of Biodiversity - <https://goo.gl/4kU3vM>
- C.5 (HL only) - Population Ecology - <https://goo.gl/ZHKUKn>
- C.6 (HL only) - Nitrogen and Phosphorus Cycles -- <https://goo.gl/pTursq>

-Option C cancelled for May 2022 exams.

IB Bio Gr. 12 Adapted Start - Bio Statistics and Data Analysis Techniques - <https://bit.ly/32rmyA8>

Additional Higher Level Topics

Topic 7

- 7.1 - DNA Replication - <https://goo.gl/9tCuNq>
- 7.2 - Transcription - <https://goo.gl/Q4pPZQ>
- 7.3 - Translation - <https://goo.gl/3F6ob4>

Topic 8

- 8.1 - Metabolism - <https://goo.gl/Jb1wKC>
- 8.2 - Cell Respiration - <https://goo.gl/SHTLu7>
- 8.3 - Photosynthesis - <https://goo.gl/k7guou>

Topic 9

- 9.1 - Transport in the Xylem of Plants - <https://goo.gl/heJ93q>
- 9.2 - Transport in the Phloem of Plants - <http://bit.ly/2XyaxEC>
- 9.3 - Growth in Plants - <http://bit.ly/2Vf6mjD>
- 9.4 - Reproduction in Plants - <http://bit.ly/2Izjx98>

Topic 10

- 10.1 - Meiosis - <https://goo.gl/bu4VTp>
- 10.2 - Genetics and Inheritance - <https://goo.gl/sD92S9>
- 10.3 - Gene Pool and Speciation - <https://goo.gl/MRnSxr>

Topic 11

- 11.1 - Antibody Production and Vaccination - <https://goo.gl/D2Z874>
- 11.2 - Movement - <https://goo.gl/w9mdJb>
- 11.3 - The kidney and osmoregulation - <http://bit.ly/2Y3zSH2>
- 11.4 - Sexual Reproduction - <http://bit.ly/2VbQejN>

IB Biology Revision Resources

Revision Focus	Link to Revision Resource
Data Based Questions: Topics 1-3 (SL)	T1 Centromeres and Telomeres T1 Magnification T1 The Effect of Smoking on Health T1 Phosphate Absorption in Barley Roots T1 Osmosis in Plant Tissues T1 Diffusion of Oxygen in the Cornea T1 Diffusion of Proteins in Membranes T1 Membranes in Freeze-etched Electron Micrographs *T1 DBQs Answers T2 Nomograms T2 Oxygen Consumption in Tobacco Hornworms T2 Saturated Fats and Coronary Heart Disease T2 The bases in DNA T2 Messelson and Stahl Experiment T2 Monitoring anaerobic cell respiration in yeast T2 Interpreting Electron Micrographs T2 Growth of Tomato Seedlings in Red, Green and Blue Light T2 Evaluating Evidence from a Health Survey T2 Emperor Penguins T2 Digesting jello cubes T2 Designing an experiment to find the effect of temperature on lipase T2 Decoding base sequences T2 Commonality of Amino Acids T2 Chargaff's Data T2 Biosynthesis of Glycogen *T2 DBQs Answers - https://goo.gl/bnoyks T3 A human karyotype T3 Analysing Genetic Crosses T3 Coat Colour in the House Mouse T3 Comparing the Chromosomes of Mouse and Humans T3 COX-2, Smoking and Stomach Cancer T3 Deducing Genotypes from Pedigree Charts T3 Life Cycles T3 Parental Age and Non-Disjunction T3 PCR and Neanderthals T3 The Aftermath of Chernobyl T3 The two-spot ladybird T3 Transgenic pollen and monarch larvae T3 Differences in Chromosome number *T3 DBQs Answers - https://goo.gl/8YvRUq
Data Based Questions: Topics 4-6 (SL)	T4 A Simple Food Web T4 Carbon Dioxide Concentration T4 Chi Squared Testing T4 Comparing CO2 Emissions T4 Data Logging pH in an aquarium T4 Oak Woodland and carbon dioxide concentration T4 Phenology T4 Release of carbon from tundra soils

	T4 Respiration in Magpies T4 Uncertainty in Temperature Rise Projections T4 Unexpected diets T4 CO2 concentrations and Global Temperatures *T4 DBQs Answers - https://goo.gl/LGXo8D T5 Antibiotic Resistance T5 Chlortetracycline resistance in soil bacteria T5 Classifying cartilaginous fish T5 Domestication of corn T5 Evolution in rice plants T5 Galapagos finches T5 Missing links T5 Origins of Turtles and Lizards T5 Predation rates of Biston betularia T5 TB-Evolution of Drug resistance *T5 DBQs Answers - https://goo.gl/7Qvp36 T6 Analyzing an oscilloscope trace T6 Concentration gradients T6 Emphysema and gas exchange T6 Heart action and blood pressures T6 Parkinson's Disease T6 The female athlete triad T6 The glucose tolerance test *T6 DBQs Answers - https://goo.gl/QvB6Fc
Data Based Questions: Topics 7-11 (HL)	T7 Analysis of DNA Using D1S80 T7 Apoptosis and the length of DNA between nucleosomes T7 Changes in methylation patterns with age in identical twins T7 Haemoglobin Types T7 Identical Twin Studies T7 Hershey Chase Experiment *T7 DBQs Answers - https://goo.gl/KQejLh T8 Calculating Rates of Reaction T8 Evidence for Chemiosmosis T8 Freeze Fracture images of Chloroplasts T8 Oxygen consumption of mitochondria T8 The Effectiveness of Enzymes T8 Calvin's Lollipop Experiment *T8 DBQs Answers - https://goo.gl/HCwLPB T9 Aphids and Phloem T9 Explaining Water Movement T9 Fungal Hyphae and Mineral Ion Absorption T9 Radioactive labelling 1 T9 The Acid Growth Hypothesis T9 The Renner Experiment T9 DBQs Answers - https://goo.gl/vGFMka T10 Comparison of Allele Frequencies of Isolated populations T10 Directional Selection in Bighorn Sheep T10 Disruptive Selection in Coho Salmon T10 Gene linkage in Zea Mays T10 Lacewing Songs T10 Stabilizing selection in birth weight and mortality

	T10 Using the Chi-Squared Test T10 Calculation of dihybrid crosses T10 DBQs Answers - https://goo.gl/xuMKsf T11 ADH and Feelings of Thirst T11 Blood Supply to the Kidney T11 Crabs T11 Electron Micrograph of Placenta T11 Estrogen Pollution T11 Flight Muscles T11 Gestation Length and Body Mass T11 Hormone Levels During Pregnancy T11 Medulla Thickness and Urine Concentration T11 Polio Incidence in 2012 T11 Sizes of Sperm T11 Transverse Sections of Striated Muscles T11 Ultrafiltration of Charged and Uncharged dextrans T11 DBQs Answers - https://goo.gl/KSh1Ea
6-8 marks Essay Questions:	Essay Questions Review T1-3 SL
6-8 marks Essay Questions:	Essay Questions Review T4-6 SL + Option C
6-8 marks Essay Questions:	Essay Questions Review T7-11 HL
Paper 1 Practice Multiple Choice Practice: Topics 1-6 (SL)	Self-Grading Test 1 SL Self-Grading Test 2 SL Self-Grading Test 3 SL Self-Grading Test 4 SL Self-Grading Test 5 SL Self-Grading Test 6 SL Self-Grading Test 7 SL Self-Grading Test 8 SL Self-Grading Test 9 SL Self-Grading Test 10 SL
Paper 1 Practice Multiple Choice Practice: Topics 7-11 (HL)	Self Grading Test 1 HL Self-Grading Test 2 HL Self-Grading Test 3 HL Self-Grading Test 4 HL Self-Grading Test 5 HL Self-Grading Test 6 HL Self-Grading Test 7 HL Self-Grading Test 8 HL Self-Grading Test 9 HL Self-Grading Test 10 HL
Draw and Label Command Terms	Past Paper IB Draw + Label Questions and Answers - SL Past Paper IB Draw + Label Questions and Answers - HL Review Sketch Book SL Review Sketch Book HL
Practice Paper 3	SL Folder (10 past paper exams + MS) HL Folder (10 past paper exams + MS)

Reviews (Paper 2+3 Questions)

Core (SL) + Option C

Topic 1 - <https://goo.gl/e9mCN7>

BONUS Topic 1 Review from May 2019 Questions - <http://bit.ly/30TJ1CZ>

Topic 2 Part 1 - <https://goo.gl/jW7njP>

Topic 2 Part 2 - <https://goo.gl/VkoDw1>

Topic 3 - <https://goo.gl/9hssWr>

Topic 4 - <https://goo.gl/dxnML2>

Topic 5 - <https://goo.gl/9oBqDC>

Topic 6 - <https://goo.gl/25TFBZ>

Option C SL Review - <https://goo.gl/AFsgub>

Bonus May 2019 Option C SL Review - <http://bit.ly/2MfYyHY>

Option C HL Review - <https://goo.gl/Z7GYvY>

Bonus May 2019 Option C HL Review - <http://bit.ly/30RtvaD>

Additional Higher Level Topics

Topic 7 + Topic 8 - <https://goo.gl/LmrwxT>

Topic 9 - <https://goo.gl/tphSxz>

Topic 10 - <https://goo.gl/AnhkhP>

Topic 11 - <https://goo.gl/8TKDXJ>