

## CURRICULUM OVERVIEW BIOLOGY (SL)

	Topic/unit	Contents	Allocated time			Assessment instruments to be used	Resources.
			One lesson is	45	minutes		
			in one week there are	4	lessons		
<b>Year 1</b>	<b>Topic 1: Cell Biology</b>	1.1 Introduction to Cells 1.2 Ultrastructure of Cells 1.3 Membrane Structure 1.4 Membrane Transport 1.5 The Origin of Cells 1.6 Cell Division		15 hours 20 lessons			
	<b>Topic 2: Molecular Biology</b>	2.1 Molecules to metabolism 2.2 Water 2.3 Carbohydrates and Lipids 2.4 Proteins 2.5 Enzymes 2.6 Structure of DNA and RNA 2.7 DNA replication, transcription and translation 2.8 Cell Respiration 2.9 Photosynthesis		21 hours 28 lessons	Unit Test Quizzes Lab Activities Lab reports Oral presentations Class discussions Research projects Worksheets	Textbooks (IB DP Biology Oxford) Workbooks (IB DP Biology Oxford) Guidebooks Vernier YouTube BioNinja	
	<b>Topic 4: Ecology</b>	4.1 Species, Communities and ecosystems 4.2 Energy Flow 4.3 Carbon Cycling 4.4 Climate Change		12 hours 16 lessons			

<b>Year 2</b>	<b>Topic 3: Genetics</b>	3.1 Genes 3.2 Chromosomes 3.3. Meiosis 3.4 Inheritance 3.5 Genetic Modification and Biotechnology	15 hours 20 lessons		
	<b>Topic 5: Evolution and Biodiversity</b>	5.1 Evidence for Evolution 5.2 Natural Selection 5.3 Classification of Biodiversity 5.4 Cladistics	12 hours 16 lessons		
	<b>Topic 6: Human Physiology</b>	6.1 Digestion and Absorption 6.2 The Blood system 6.3 Defense against infectious diseases 6.4 Gas exchange 6.5 Neurons and synapses 6.6 Hormones, homeostasis and reproduction	20 hours 27 lessons		
	<b>Option D: Human Physiology</b>	D.1 Human nutrition D.2 Digestion D.3 Functions of the liver D.4 The heart	15 hours 20 lessons		
<b>Year 1 and 2</b>	Practical Activity		20 hours 27 lessons		
	Individual Investigation		10 hours 13 lessons		

	<b>Group 4 Project</b>		10 hours 13 lessons		
<b>Total</b>			* 1st year (32 weeks) → 96 DP hours = 128 lessons  * 2nd year (23 weeks) → 54 DP hours = 72 lessons * 150 DP hours = 200 lessons		