

Teaching units:

	Hours			# of weeks		
Unit	SL	HL	#		Key syllabus	Suggested Labs
1. Molecules	11	5	16	4	• A1.1 Water • B1.1 Carbohydrates and lipids • A1.2 Nucleic acids • B1.2 Proteins	Water lab Identifying types of lipids Modeling DNA DNA extraction
2. Cells	7	4	11	3	• A2.2 Cell structure • B2.3 Cell specialization • B2.2 Organelles and compartmentalization	Microscopy Magnification
3. Membranes	6	8	14	3	• B2.1 Membranes and membrane transport • D2.3 Water potential • A2.1 Origins of cells [HL only] • A2.3 Viruses [HL only]	Osmosis / water Ψ Cell theory
4. Metabolism	13	13	26	6	• C1.1 Enzymes and metabolism • C1.2 Cell respiration • C1.3 Photosynthesis • D1.1 DNA replication • D1.2 Protein synthesis	Factors affecting the rate of catalase decomposition of H_2O_2
5. Genetics	16	12	28	6	• D1.3 Mutations and gene editing • D3.2 Inheritance • D2.1 Cell and nuclear division • D3.1 Meiosis • D2.2 Gene expression [HL only]	
6. Plants	6	3	9	3	• B3.1 Structure [SL] • D2.3 Transport [SL/HL] • D3.1 Germination [SL] • C3.1 Plant Signalling [HL]	Flower dissection Seed dissection Factors affecting germination Factors affecting transpiration

7. Evolution, diversity and classification	9	6	15	4	• A4.1 Evolution and speciation • D4.1 Natural selection • A3.1 Diversity of organisms • A3.2 Classification and cladistics [HL only]	Cookie cladistics Chopstick race - natural selection Classifying plants / animals based on features
8. Ecology	14	3	32	7	• C4.2 Transfers of energy and matter • A4.2 Conservation of biodiversity • C4.1 Populations and communities • D4.3 Climate change	Transect study Quadrats to look at plant distribution in a field
9. Ecosystem Dynamics	11	2	13	3	• B4.1 Adaptation to environment • B4.2 Ecological niches • D4.2 Stability and change	
10. Human physiology	25	17	42	10	• C3.1 Integration of body systems • B3.2 Blood • C2.1 Chemical signaling [HL only] • C3.2 Defence against disease • B3.1 Gas exchange • C2.2 Nerves • D3.1 Reproduction • D3.3 Homeostasis • B3.3 Muscle and motility [HL only]	Heart dissection Chicken wing dissection (muscles) Model sarcomere with cups and straws
IA			3	3		
	Total		184	45		