Group 4 Biology SL/HL.

AIMS
1. appreciate scientific study and creativity within a global context through stimulating and challenging opportunities 2. acquire a body of knowledge, methods and techniques that characterize science and technology 3. apply and use a body of knowledge, methods and techniques that characterize science and technology 4. develop an ability to analyse, evaluate and synthesize scientific information 5. develop a critical awareness of the need for, and the value of, effective collaboration and communication during scientific activities 6. develop experimental and investigative scientific skills including the use of current technologies 7. develop and apply 21st century communication skills in the study of science 8. become critically aware, as global citizens, of the ethical implications of using science and technology 9. develop an appreciation of the possibilities and limitations of science and technology 10. develop an understanding of the relationships between scientific disciplines and their influence on other areas of knowledge.

ASSESSMENT OBJECTIVES
1. Demonstrate knowledge and understanding of: a. facts, concepts and terminology b. methodologies and techniques c. communicating scientific information. 2. Apply: a. facts, concepts and terminology b. methodologies and techniques c. methods of communicating scientific information. 3. Formulate, analyse and evaluate: a. hypotheses, research questions and predictions b. methodologies and techniques c. primary and secondary data d. scientific explanations. 4. Demonstrate the appropriate research, experimental, and personal skills necessary to carry out insightful and ethical investigations.

LIST OF TOPICS	
Core 1. Cell biology 2. Molecular biology 3. Genetics 4. Ecology 5. Evolution and biodiversity 6. Human physiology Additional higher level (AHL) 7. Nucleic acids 8. Metabolism, cell respiration and photosynthesis 9. Plant biology 10. Genetics and evolution 11. Animal physiology	Option A. Neurobiology and behaviour B. Biotechnology and bioinformatics C. Ecology and conservation D. Human physiology

ASSESSMENT TYPE	COMPONENT		IBDP WEIGHT %
Internal Assessment	Personal Engagement	This criterion assesses the extent to which the student engages with the exploration and makes it their own.	1.5%
	Exploration	This criterion assesses the extent to which the student establishes the scientific context for the work, states a clear and focused research question and uses concepts and techniques appropriate to the DP level.	5%
	Analysts	This criterion assesses the extent to which the student's report provides evidence that the student has selected, recorded, processed and interpreted the data in ways that are relevant to the research question and can support a conclusion.	5%
	Evaluation	This criterion assesses the extent to which the student's report provides evidence of evaluation of the investigation and the results with regard to the research question and the accepted scientific context.	5%
	Communication	This criterion assesses whether the investigation is presented and reported in a way that supports effective communication of the focus, process and outcomes.	3.5%
External Assessment	Paper One SL/ HL Paper Two SL/HL Paper Three SL/HL		20 / 20 40 / 36 20 / 24