2021-22 IBMYP Subject Overview
Subject Area: Biology MYP Level: 4

Dates	September 8 - September 30	October 1 - October 22	October 25 - December 3	December 6 - December 17
Unit Title	**Unit 1: Science- Like magic, only real**	**Unit 2: You are what you eat**	**Unit 3: Legos of Life**	**Unit 4: Medical Mysteries**
SOLs	BIOL.1	BIOL.2	BIO.3a-d	BIO.4
MYP Objectives and Criteria	Criterion D Strands 2 and 3	Criterion A Strands 1 and 2	Criterion B Strands 3 and 4	Criterion B Strands 1 and 2
Global Context	Personal and Cultural Expression	Scientific and Technological Innovation: Systems, Models, Methods	Orientation in Space and Time	Scientific and Technological Innovation: Processes and Solutions
Key Concept	Change	Relationships	Systems	Relationships
Related Concepts	Models, Evidence, Consequences	Form, Models	Interaction, Transformation	Balance, Patterns, Consequences
Statement of Inquiry	New evidence can change models to consequently allow for the discovery of new solutions.	Representing relationships between form and function allow us to model systems.	Interactions between components of a process can demonstrate how systems are transformed.	Disruption of natural patterns can disturb the balance between organisms which are related, and will therefore be accompanied by consequences.
MYP Assessment	GRASPS Mini-Project: The Collaborative Nature of Science (Penguin Activity)	Students change one thing about sketches they are familiar with and draw out how the system/relationship would be different.	Cell Scaling Project	Bearded Dragon Tournament Bracket
Approaches to Learning taught	Communication: through the scientific method, students can communicate results	Critical Thinking: applying scientific knowledge to solve problems in new context	Organization: building models to organize information into manageable “chunks”	Informational Literacy: discerning fact from fiction in science through the use of evidence
Learner Profile Focus	Inquirer	Knowledgeable	Open-Minded	Reflective
Connections: Interdisciplinary and A/S	Models Across Disciplines	Nutritional and Dietary Science Awareness	The Value of Scale	The Future(s) of Science

Dates	January 3rd - January 21st	January 24th - March 15th	March 16th - April 15th	April 19th - May 13th
Unit Title	**Unit 5: Metabolism**	**Unit 6: Central Dogma**	**Unit 7: Chuck and Carl (Evolution and Classification)**	**Unit 8: Ecology**
SOLs	BIOL.2	BIOL.3e, BIOL.5	BIOL.6 and BIOL.7	BIOL.8
MYP Objectives/Criteria	Criterion C Strands 1 and 2	Criterion A Strands 2 and 3	Criterion C Strands 3 through 5	Criterion D Strands 1 and 4
Global Context	Orientation in Space & Time	Personal & Cultural Expression	Globalization & Sustainability	Fairness and Development
Key Concept	Systems	Systems	Change	Relationships
Related Concepts	Energy, Transformation	Form, Function, Models	Evidence, Patterns, Transformation	Environment, Balance, Consequences
Statement of Inquiry	Transformation of energy is not an instantaneous process, but is rather dependent on context and other processes that take place in organisms.	Systems are best described by models that describe both the structure (form) and function of a process.	Envisioning change as a transformation in an accustomed pattern allows us to integrate new evidence and revise models.	Ecological systems are composed of delicately balanced relationships between organisms and the environment; even minor change can have large consequences.
MYP Assessment Task	Students change one thing about sketches they are familiar with and draw out how the system/relationship would be different.	Students develop their own models to demonstrate their own thinking to their peers.	Students apply information they develop together in groups on a cumulative assessment to bring the unit to the larger context of biology.	Ecological Identity Project: Connecting literature (both nonfiction and fiction) to scientific understanding
Approaches to Learning taught	Modeling: using diagrams to represent systems	Critical Thinking: applying scientific knowledge to solve problems in novel contexts	Organization: students are provided with tools that enable them to model historical classification systems	Communication: through various avenues of research, students can communicate findings
Learner Profile Focus	Thinkers	Risk-Takers	Open-Minded	Balanced
Connections: Interdisciplinary and A/S	Science of Sports and Activity	Probability and Statistics	History of Science	Connection Between Literature and Science