

## MYP Integrated Science – Grade 9

Topic/ Unit Title	Key Concept	Related Concept	Global Context/Exploration	Statement of Inquiry	ATL Skills	Summative Assessments	Assessment Objectives
Nature of Biology and the Scientific Method	Relationship	Evidence	Scientific and technical innovation	Reflective - Demonstrate flexibility in the selection and use of learning strategies  Organisational Skills-Set goals that are challenging and realistic	Scientists observe patterns in the world around them to construct systems that explain how the world works.	Criteria B and C -Is a Denser Fruit Healthier?	Criterion A: Knowing and understanding- Maximum: 8 Criterion B: Inquiring and designing- Maximum: 8 Criterion C: Processing and evaluating-Maximum: 8
<b>Service as Action</b>							
Service - Student create awareness to educate the school community how to density affects the nutritional quality of fruits.							
Mathematics and Our Health( IDU with Maths)	Relationships	Consequences, Environment, Interaction	Scientific and technical innovation	Self-Management - Plan strategies and take action to achieve personal and academic goals  Thinking Skills-Test generalizations and conclusions.	Models and patterns of change can be used to make decisions during pandemics where Health is affected by infectious disease	Investigating The Body Mass Index- Criteria B and C	Criterion A : Knowledge and Understanding Maximum:8. IDU Criteria Criterion A: Evaluating Maximum 8 Criterion B: Synthesizing Maximum 8 Criterion C: Reflection
<b>Service as Action</b>							
Students use their knowledge in Biology and Mathematics to explain the spread of diseases in the world.							
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				Skills-Set goals that are challenging and realistic			
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**Service as Action**

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**Service as Action**

Student use their knowledge in Biology and Mathematics to explain the spread of diseases in the world.

Cells and Microscope	Systems	Form, Function, Interaction	Identities and relationships: Exploring into Identity formation.	Self-Management- Use appropriate strategies for organizing complex information.  Reflective- Demonstrate flexibility in the selection and use of learning strategies  Research Skills- Collect and analyse data to identify	Relationships and interactions between different parts of a system will lead to a specific form, function, and identity to fulfil a purpose and role.	Criterion D- The Microscope Research Investigation	Criterion A: Knowing and understanding- Maximum: 8 Criterion B: Inquiring and designing- Maximum: 8 Criterion C: Processing and evaluating- Maximum: 8 Criterion D: Reflection on Impact of Science - Maximum:8
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				solutions and make informed decisions			
<b>Service as Action</b>							
Students create model about the components of the cell to educate the class about the cell.							
Enzymes	Systems	Energy, Transformation	Scientific and technical innovation	Information Literacy-Access information to be informed and inform others.  Thinking Skills- Make unexpected or unusual connections between objects and/or ideas.	Enzyme controlled biochemical reactions and the transformations of energy that occur within cells innovatively supported the systems of life	Criteria B and C- Enzyme Design Lab	Criterion A: Knowing and understanding- Maximum: 8 Criterion B: Inquiring and designing- Maximum: 8 Criterion C: Processing and evaluating- Maximum: 8
<b>Service as Action</b>							
Students investigate how enzymes can be use to generate sustainable energy.							
DNA- The Life Molecule	Systems	Form, Function, Models, Transformation	Scientific and technical innovation	<b>Information Literacy</b> -Access information to be informed and inform others.  <b>Thinking Skills</b> - Test generalizations and conclusions.	Understanding systems empower humans to explore the form and functions of models.	Criteria B and C - DNA Extraction Lab Criterion D- Biotechnology Research	Criterion A: Knowing and understanding- Maximum: 8 Criterion B: Inquiring and designing- Maximum: 8 Criterion C: Processing and evaluating- Maximum: 8 Criterion D: Reflection on Impact of Science - Maximum: 8
<b>Service as Action</b>							
Students are tasked to create a model of the DNA to educate grade 6 students about the important DNA.							
Reproduction	Relationships	Related concept(s) Global context with	Identities and relationships: an exploration of the	Media Literacy and Communication	Nurturing the next generation sustains	(A) Unit questions (B and C)	Criterion A: Knowing and understanding- Maximum: 8 Criterion B: Inquiring and designing-



		'exploration into' Relationships Patterns, interactions, consequences	human context for raising a family		species.	Investigation: Investigating the growth of yeast	Maximum: 8 Criterion C: Processing and evaluating-Maximum: 8
<b>Service as Action</b>							
Students create awareness to educate the school community om healthy eating.							

**Please note:** At times areas of the curriculum will change based on the learning needs and interests of the students.

