

MYP Mathematics – Grade 8

Topic/ Unit Title	Key Concept	Related Concept	Global Context/ Exploration	ATL skills	Statement of Inquiry	Summative Assessments	Assessment Objectives
Numerical reasoning and abstract reasoning	Logic	Change	Globalisation and sustainability	Self-management Thinking	Markets worldwide involve frequent changes where logical thinking is essential to maintain its sustainability.	<p>Students' academic levels will be assessed through formative assessments and summative assessments to meet the objectives. Generally, criteria A, B and D are assessed with different kinds of tasks. Criterion C is often used to assess constructed responses and reports in combination with criterion B or D.</p> <p>Laws of exponents scientific notation using laws of indices (standard form) Significant figures Rational and irrational numbers surds simple interest appreciation/depreciation compound interest, profit, tax, discount Sequence Algebraic expressions Linear equations Linear inequalities Linear systems Quadratics (Factorization/solving)</p>	<p>Criterion A-Knowing and understanding This objective requires students to demonstrate knowledge and understanding of the concepts and skills of the four branches in the prescribed framework (numerical and abstract reasoning, thinking with models, spatial reasoning, and reasoning with data). In order to reach the aims of mathematics, students should be able to: select appropriate mathematics when solving problems in both familiar and unfamiliar situations apply the selected mathematics successfully when solving problems solve problems correctly in a variety of contexts. Criterion B- Investigating patterns This objective allows students to experience the excitement and satisfaction of mathematical discovery. Working through investigations encourages students to become risk-takers, inquirers and critical thinkers. The ability to inquire is invaluable in the MYP and contributes to lifelong learning. In order to reach the aims of mathematics, students should be able to: apply mathematical problem-solving techniques to recognize patterns describe patterns as relationships or general rules consistent with correct findings verify whether the pattern works for other examples Criterion C-Communication Students are expected to use appropriate mathematical language and different forms of representation when communicating</p>
Thinking with models	Form	Pattern, space	Personal and cultural expressions	Communication	Understanding form and shape	Students' academic levels will be assessed through formative assessments	



					enhances creativity	<p>and summative assessments to meet the objectives. Generally, criteria A, B and D are assessed with different kinds of tasks. Criterion C is often used to assess constructed responses and reports in combination with criterion B or D.</p> <p>Pythagorean theorem -slope of a line -graphing linear equations -Graphing linear inequalities -Transformations</p>	<p>mathematical ideas, reasoning and findings, both orally and in writing. In order to reach the aims of mathematics, students should be able to:</p> <ul style="list-style-type: none"> i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written statements ii. use appropriate forms of mathematical representation to present information iii. communicate coherent mathematical lines of reasoning iv. organize information using a logical structure <p>Criterion D-Real life application Students are expected to transfer theoretical mathematical knowledge into real-world situations and apply appropriate problem-solving strategies, draw valid conclusions and reflect upon their results.</p> <ul style="list-style-type: none"> - In order to reach the aims of mathematics, students should be able to: i. identify relevant elements of authentic real-life situations ii. select appropriate mathematical strategies when solving authentic real-life situations iii. apply the selected mathematical strategies successfully to reach a solution iv. explain the degree of accuracy of a solution v. describe whether a solution makes sense in the context of the authentic real-life situation.
Spatial reasoning	Form	Space, measurement, representation	Orientation in Space and Time	Thinking	An understanding of form and space can benefit our communities.	<p>Students' academic levels will be assessed through formative assessments and summative assessments to meet the objectives. Generally, criteria A, B and D are assessed with different kinds of tasks. Criterion C is often used to assess constructed responses and reports in combination with criterion B or D.</p> <p>Lines and angles volume and surface area of regular and compound shapes similarity and congruence Trigonometry Transformation</p>	
Reasoning with data	Relationships	Model, equivalence	Scientific and technical innovation	Communication	Models can be created to reveal relationships	Students' academic levels will be assessed through formative assessments	



				<p>between human actions and environmental consequences.</p>	<p>and summative assessments to meet the objectives. Generally, criteria A, B and D are assessed with different kinds of tasks. Criterion C is often used to assess constructed responses and reports in combination with criterion B or D.</p> <p>Simple discrete data and classifications Data collection and generation (including • surveys) Graphical representations (including: pie charts, bar charts, stem and leaf plots, pictograms, histograms) Averages Probabilities</p>	
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Service as Action

Researching and examining global change in relation to temperatures across the world. Students focused on many things such as the impact it is having on wildlife and the arctic region along with the ever changing climate across many countries across the world

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

