

Disciplinary Subject Group Overview
Mathematics
MYP Year 1 (Grade 6)

Unit Title	Key Concept	Related Concept(s)	Global Context	Statement of Inquiry	MYP subject-specific objective(s)	ATL skills	Content (topics, knowledge, skills)
Number System 1	Form	Quantity and Simplification	Globalization and Sustainability Global Context Exploration: Budgeting	Quantities can be simplified in various forms which impacts the budgeting process.	Objective A.i,ii,iii	Thinking: Critical-Thinking Skills Thinking: Transfer Skills	Rational Numbers <ul style="list-style-type: none"> ● Four Fundamental Operations (Addition, Subtraction, Multiplication and Division) <ul style="list-style-type: none"> - Similar and Dissimilar Fractions - Whole Number and a Mixed Numbers - Decimals ● Common Factors, Greatest Common Factors, Common Multiples, and Least Common Multiples
Number System 2	Relationship	Change and Quantity	Globalization and Sustainability	Relationships demonstrate changes in quantities that influence population and demographics.	Objective C,I,ii,iii,iv,v	Communication Information Literacy Skills	Concepts of Ratio and Proportion Exponential Form (including calculation using the GEMDAS rules) Percentage, Base and Rate

Algebraic Thinking	Form	Equivalence and Simplification	Scientific and Technical Innovation	By using models and methods, equivalence forms are produced by simplification.	Objective A.i,ii,iii Objective B.i,ii,iii	Thinking: Critical-Thinking Skills Thinking: Transfer Skills Self-Management: Organization Skills	Algebraic Expression <ul style="list-style-type: none"> ● Writing and Evaluating Numerical Expressions Involving Whole-Number Exponents ● Writing Expressions in Mathematical and English Context ● Parts of an Expression ● Evaluating Expressions Including Formulas Used in Real-Life Problems ● Properties of Operations ● Equivalent Expressions
Geometry and Measurement 1	Form	Equivalence and Pattern	Personal and Cultural Expression	Certain patterns produce equivalent forms which results in artistic creation.	Objective B.i,ii,iii	Self-Management Thinking: Critical-Thinking Skills	Transformation <ul style="list-style-type: none"> ● Tessellation of Shapes ● Translation, Reflection and Rotation with Shapes
Geometry and Measurement 2	Relationship	Generalization and Models	Orientation in Space and Time	Relationships among models can lead to generalization to explore the formation of human and	Objective C.i,ii,iii,iv,v Objective D.i,ii,iii,iv,v	Communication: Communication Skills Research: Information Literacy Skills Thinking:	Measurement of Two-Dimensional and Three-Dimensional Shapes

				natural landscapes		Creative-Thinking Skills	
Statistics and Probability	Logic	Representation and Validity	Scientific and Technical Innovation	In introducing new products to the market, the representation must be logical to ensure validity.	Objective D.i,ii,iii,iv,v	Self-Management: Organization Skills Thinking: Creative-Thinking Skills Research: Information Literacy Skills	Data Analysis <ul style="list-style-type: none"> ● Constructing a Pie Graph Using Appropriate Tools ● Interpreting Data Presented in a Pie Graph ● Drawing Conclusion or Making Inferences Based on Data Presented ● Solving Real-Life Problems Involving Data Presented in a Pie Graph

Disciplinary Subject Group Overview
Mathematics
MYP Year 2 (Grade 7)

Unit Title	Key Concept	Related Concept(s)	Global Context	Statement of Inquiry	MYP subject-specific objective(s)	ATL skills	Content (topics, knowledge, skills)
Number System 1	Form	System Quantity	Scientific and Technical Innovation	A system can be utilized to express quantities in various forms which encompasses its foundational role and application.	Objective B.i,ii,iii	Thinking: Critical-Thinking Skills Communication: Communication Skills Self-Management: Organization Skills	Real Numbers System Sets <ul style="list-style-type: none"> ● Sets and Subsets <ul style="list-style-type: none"> - Union of Sets using Venn Diagram - Intersections of Sets using Venn Diagram ● Subset of Real Numbers
Number System 1	Logic	Validity Quantity	Globalization and Sustainability	The application of logic in evaluating quantities ensures the validity of financial decisions	Objective A.i,ii,iii Objective D.i,ii,iii,iv	Thinking: Critical-thinking Skills Thinking: Transfer Skills Communication: Communication Skills	Percentages (Finance) <ul style="list-style-type: none"> ● Solving Real-Life Problems Involving Percentage Increase, and Percentage Decrease ● Solving Money-Related Problems Involving Percentages ● The Uses of Rates ● Creating a Financial Plan
Algebraic Thinking	Relationship	Patterns Simplification	Personal and Cultural Expressions	There is a relationship between patterns	Objective C.i,ii,iii,iv,v	Communication: Communication Skills	Algebraic Expressions and Equations

				and their simplifications which can create unique crafts.		Self-Management: Organization Skills	Scientific Notations
Geometry and Measurement 1	Form	Measurement Space	Scientific and Technical Innovation Global Context Exploration: Mathematical Puzzles	Measurements bounded in a space describe various forms presented as mathematical puzzles.	Objective B.i,ii,iii	Self-Management: Organization Skills Thinking: Critical Thinking Skills	Polygons <ul style="list-style-type: none"> ● Triangles ● Quadrilaterals ● Angle Properties (Angle Pairs of Parallel Lines + Basic Terminologies) ● Irregular Polygons and the Features/ Properties ● Geometrical Figures (Polygons) and Their Relationship With Each Other ● Measurements of Angles and Number of Sides of Polygons
Geometry and Measurement 2	Relationships	Measurement Generalization	Scientific and Technical Innovation	Relationships between measurements can be generalized by designing 3D models of simple infrastructures	Objective A.i,ii,iii Objective D.i,ii,iii,iv,v	Thinking: Critical- Thinking: Creative-Thinking Skills Transfer Skills	Measurement of Two-Dimensional and Three-Dimensional Shapes <ul style="list-style-type: none"> ● Conversion of Units of Measure ● Volume, Surface Area and Nets of Cubes, Cuboids, Cylinders and Prisms

							<ul style="list-style-type: none"> Solving Real-Life Problems Involving Angle Measure, Area, Surface area, and Volume
Statistics and Probability	Logic	Representation Justification (Validity)	Globalization and Sustainability	A plausible logic behind a representation requires a solid justification to ensure accurate data-driven decision making	Objective C.i,ii,iii,iv,v	Research: Information Literacy Skills Communication: Communication Skills	Data Presentation and Interpretation Simple Probability <ul style="list-style-type: none"> Outcomes from Experiments Investigating Chance Processes to Evaluate Probability Models (CC)

**Disciplinary Subject Group Overview
Mathematics
MYP Year 3 (Grade 8)**

Unit Title	Key Concept	Related Concept(s)	Global Context	Statement of Inquiry	MYP subject-specific objective(s)	ATL skills	Content (topics, knowledge, skills)
Number System	Relationship	Simplification Equivalence	Scientific and Technical Innovation	Simplification reveals relationships and equivalences in the design and development	Objective A.i,ii,iii Objective B.i,ii,iii	Thinking: Transfer Skills Thinking: Critical-Thinking Skills	Real Numbers System Number Sequences Finance (Money)

				process of a product.		Self-Management: Organization Skills	
Algebraic Thinking 1	Form	Models Equivalence	Identities and Relationships	Equivalences can be modeled in various forms to aid lifestyle choices.	Objective B.i,ii,iii	Thinking: Transfer Skills Self-Management: Organization Skills	Algebraic Expressions Coordinate System Rational and Algebraic Expressions
Algebraic Thinking 2	Relationship	Representation Change	Fairness and Development	Representations show changes in relationships that help social entrepreneurs.	Objective C.i,ii,iii,iv,v	Thinking: Critical-Thinking Skills Communication: Communication Skills	Linear Equations and Inequalities in One Variable Linear Equations and Inequalities in Two Variables Systems of Linear Equations in Two Variables Functions
Geometry and Measurement	Relationship	Measurement Space	Scientific and Technical Innovation	Measurements within a space reveal relationships, which are essential for efficient design,	Objective A.i,ii,iii	Thinking: Creative-Thinking Skills Thinking: Critical-Thinking Skills	Volume of Three-Dimensional Shapes Triangle

				production optimization, and structural safety.			
Statistics and Probability 1	Logic	Models Representation	Globalization and Sustainability	Logical evaluation can be represented by models for data-driven decision-making.	Objective C.i,ii,iii,iv,v Objective D.i,ii,iii,iv,v	Thinking: Creative-Thinking Skills Communication: Communication Skills Research: Information Literacy Skills	Data Interpretation and Analysis Measures of Central Tendency Measures of Variability
Statistics and Probability 2	Logic	Representation Validity	Scientific and Technical Innovation	Logical representation, develops validity to show consequences and responsibilities.	Objective D.i,ii,iii,iv,v	Thinking: Creative-Thinking Skills Research: Information Literacy Skills -	Probability <ul style="list-style-type: none"> ● Experimental Probability ● Theoretical Probability ● Fundamental Counting Principle ● Solving Problems Involving Experimental Probability and/ or Theoretical Probability Using the Fundamental Counting Principle

Disciplinary Subject Group Overview
Mathematics
MYP Year 4 (Grade 9)

Unit Title	Key Concept	Related Concept(s)	Global Context	Statement of Inquiry	MYP subject-specific objective(s)	ATL skills	Content (topics, knowledge, skills)
Number System 1	Relationship	Simplification Change	Globalization and Sustainability.	Changes in relationships impact the efficiency of simplification in human consumption	Objective C.i,ii,iii,iv,v Objective D.i,ii,iii,iv,v	Thinking: Creative-Thinking Skills Communication: Communication Skills -	Real Number System <ul style="list-style-type: none"> ● Properties of Rational and Irrational Numbers ● Ratio and Proportion (Direct and Inverse Proportion) ● Integral and Rational Exponents ● Surds, Roots and Radicals, including simplifying (higher roots)
Algebraic Thinking 1	Form	System Models	Scientific and Global Innovation	System generates forms to create models that impact communities and the environment through scientific and technological advances.	Objective A.i,ii,iii Objective B.i,ii,iii	Thinking: Critical-Thinking Skills Social: Collaboration Skills	Relation and Function Linear Function Quadratic Equations and Functions
Algebraic Thinking 2	Relationship	Change Quantity	Personal and Cultural Expression	Various changes in quantities lead to different relationships in the application of entrepreneurship in the community.	Objective B.i,ii,iii	Thinking: Creative-Thinking Skills Communication: Communication Skills	Exponential Functions Direct and Inverse Variation

Geometry and Measurement 1	Form	Space Change	Globalization and Sustainability	Forms bounded within a space generates a model used for building structural designs.	Objective C.i,ii,iii,iv,v	Thinking: Creative-Thinking Skills Social: Collaboration Skills	Transformations Geometric Concepts and Notations Perpendicular and Parallel Lines Angles and Lines Quadrilaterals Similarity of Polygons and Special Triangles
Geometry and Measurement 2	Relationships	Generalization Measurement	Scientific and Global Innovation	Relationships among measurements facilitate the development of accurate models through generalization.	Objective A.i,ii,iii	Thinking: Creative-Thinking Skills Self-Management: Organizational Skills	Triangle Congruence and Proofs Triangle Theorems and Triangle Inequality Trigonometry
Statistics and Probability	Logic	Representation Validity	Fairness and Development	Applying logic enables the creation of valid representations that accurately depict demographic trends.	Objective D.i,ii,iii,iv,v	Thinking: Transfer Skills Research: Information Literacy Skills	Data Interpretation and Analysis Making Inferences and Justifying Conclusions Probability

Disciplinary Subject Group Overview
Mathematics
MYP Year 5 (Grade 10)

Unit Title	Key Concept	Related Concept(s)	Global Context	Statement of Inquiry	MYP subject-specific objective(s)	ATL skills	Content (topics, knowledge, skills)
Number System	Relationship	Change Pattern	Globalization and Sustainability	Patterns can demonstrate changes and relationships to make informed choices that optimize financial outcomes.	Objective B.i,ii,iii Objective D.i,ii,iii,iv,v	Communication: Communication Skills Thinking: Critical-Thinking Skills	Number Sequences Simple Interest, Compound Interest and Depreciation
Algebraic Thinking 1	Logic	Simplification Justification	Scientific and Technical Innovation	Simplification can be justified through logic revealing diverse processes and solutions.	Objective A.i.ii.iii Objective C.i,ii,iii,iv,v	Communication: Communication Skills Thinking: Critical-Thinking Skills Thinking: Creative-Thinking Skills	Radical Expressions Absolute Value Equations and Inequalities Compound and Double Inequalities
Algebraic Thinking 2	Form	Representation Equivalence	Globalization and Sustainability	Forms can be equivalent and vary in representation that highlight the diversity and interconnectedness of ideas,	Objective C.i,ii,iii,iv,v	Communication: Communication Skills Self-Management: Organization Skills Thinking: Critical-Thinking Skills	Quadratic Equations and Functions Quadratic Inequalities

				systems, and perspectives.			
Geometry and Measurement 1	Form	Measurement Space	Orientation in Space and Time	Measurements define forms within a space, shaping our understanding of natural and human landscapes and resources.	Objective D.i,ii,iii,iv,v	Thinking: Critical-Thinking Skills Thinking: Creative-Thinking Skills	Circle Conic Sections: Circle
Geometry and Measurement 2	Relationship	Measurement System	Personal and Cultural Expression	Relationships are defined within a system through measurements which can be expressed with artistry to convey a wide range of ideas and emotions.	Objective B.i,ii,iii	Thinking: Critical-Thinking Skills: Thinking: Creative-Thinking Skills:	Transformations Volume and Surface Area Triangle Trigonometry Oblique Triangles
Statistics and Probability	Logic	Representation Model	Scientific and Technical Innovation	Logic can be modeled through representation, facilitating the visualization of processes and solutions to complex problems.	Objective A.i,ii,iii	Social: Collaboration Skills Self-Management: Organization Skills Thinking: Critical-Thinking Skills	Data Collection Data Interpretation and Analysis Measures of Position (Ungrouped Data) Probability

MYP subject specific objective(s):

A. Knowing and understanding:

- i. select appropriate mathematics when solving problems in both familiar and unfamiliar situations
- ii. apply the selected mathematics successfully when solving problems
- iii. solve problems correctly in a variety of contexts.

B. Investigating patterns:

- i. select and apply mathematical problem-solving techniques to discover complex patterns
- ii. describe patterns as general rules consistent with findings
- iii. prove, or verify and justify, general rules.

C. Communicating

- i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations
- ii. use appropriate forms of mathematical representation to present information
- iii. move between different forms of mathematical representation
- iv. communicate complete, coherent and concise mathematical lines of reasoning
- v. organize information using a logical structure.

D. Applying mathematics in real-life contexts

- 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. justify the degree of accuracy of a solution
- v. justify whether a solution makes sense in the context of the authentic real-life situation

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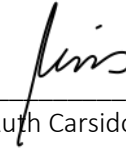
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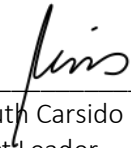


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