

## Subject Group Overview: 8th Grade Mathematics, Year 3

Unit Title, MYP Year, Duration, Teacher,	Key Concept	Related Concept(s)	Global Context	Statement of inquiry	MYP Subject Group Objectives	ATL Skills	Content (topics, knowledge, skills)
<p style="text-align: center;"><b>Real numbers, exponents and scientific notation</b></p> <p style="text-align: center;">30 hours Year 3</p>	Relationships	Patterns	Orientation in space and time	Discovering patterns in relationships can lead to orientation in space and time	<p><b><u>A – Knowing and understanding</u></b></p> <ul style="list-style-type: none"> <li>i. select appropriate mathematics when solving problems</li> <li>ii. apply the selected mathematics successfully when solving problems</li> <li>iii. solve problems correctly in both familiar and unfamiliar situations in a variety of contexts.</li> </ul> <p><b><u>B – Investigating patterns</u></b></p> <ul style="list-style-type: none"> <li>ii. describe patterns as general rules consistent with findings</li> </ul> <p><b><u>C – Communicating</u></b></p> <ul style="list-style-type: none"> <li>i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations</li> <li>ii. use appropriate forms of mathematical representation to present information</li> <li>iv. communicate complete and coherent mathematical lines of reasoning</li> </ul> <p><b><u>D – Applying mathematics in real-life contexts</u></b></p> <ul style="list-style-type: none"> <li>i. identify relevant elements of authentic real-life situations</li> <li>ii. select appropriate mathematical strategies when solving authentic real-life situations</li> </ul>	Thinking, social	Rational and irrational numbers, sets of real numbers and ordering real numbers.

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					<p>iii. apply the selected mathematical strategies successfully to reach a solution</p>		
<p><b>Proportional and non-proportional relationships and functions</b> Year 3 30 hours</p>	<p>Identities and Relationships</p>	<p>patterns</p>	<p>Globalization and sustainability</p>	<p>Discovering mathematical relationships can lead to a better understanding of mathematics.</p>	<p><b>A – Knowing and understanding</b></p> <ul style="list-style-type: none"> <li>i. select appropriate mathematics when solving problems</li> <li>ii. apply the selected mathematics successfully when solving problems</li> <li>iii. solve problems correctly in both familiar and unfamiliar situations in a variety of contexts.</li> </ul> <p><b>C – Communicating</b></p> <ul style="list-style-type: none"> <li>i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations</li> <li>ii. use appropriate forms of mathematical representation to present information</li> <li>iii. move between different forms of mathematical representation</li> <li>iv. communicate complete and coherent mathematical lines of reasoning</li> <li>v. organize information using a logical structure.</li> </ul> <p><b>D – Applying mathematics in real-life contexts</b></p> <ul style="list-style-type: none"> <li>i. identify relevant elements of authentic real-life situations</li> <li>ii. select appropriate mathematical strategies when solving authentic real-life situations</li> <li>iii. apply the selected mathematical strategies successfully to reach a solution</li> </ul>	<p>Research, thinking, social</p>	<p>Integer exponents, scientific notation with positive and negative powers of 10, operations with scientific notation.</p>

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<p style="text-align: center;"><b>Equations and System of equations</b> <b>Year 3</b> 30 hours</p>	<p style="text-align: center;">Systems</p>	<p style="text-align: center;">Equivalence Systems</p>	<p style="text-align: center;">Identities and Relationships</p>	<p style="text-align: center;">Systems of equations can be model to represent relationships in the world.</p>	<p><b>A – Knowing and understanding</b></p> <ul style="list-style-type: none"> <li>i. select appropriate mathematics when solving problems</li> <li>ii. apply the selected mathematics successfully when solving problems</li> <li>iii. solve problems correctly in both familiar and unfamiliar situations in a variety of contexts.</li> </ul> <p><b>C – Communicating</b></p> <ul style="list-style-type: none"> <li>i. use appropriate mathematical language (notation, symbols and terminology) in both oral and written explanations</li> <li>ii. use appropriate forms of mathematical representation to present information</li> <li>iii. move between different forms of mathematical representation</li> <li>iv. communicate complete and coherent mathematical lines of reasoning</li> <li>v. organize information using a logical structure.</li> </ul> <p><b>D – Applying mathematics in real-life contexts</b></p> <ul style="list-style-type: none"> <li>i. identify relevant elements of authentic real-life situations</li> <li>ii. select appropriate mathematical strategies when solving authentic real-life situations</li> <li>iii. apply the selected mathematical strategies successfully to reach a solution</li> </ul>	<p style="text-align: center;">Research, thinking, social, communication</p>	<p style="text-align: center;">Representing proportional and non-proportional relationships, rate of change and slope, interpreting unit rate and slope, identifying and representing functions, describing and comparing functions, analyzing graphs, solving systems of equations by graphing substitution and elimination, solving system of equations by elimination with multiplication, solving special systems</p>
<p style="text-align: center;"><b>Transformational Geometry</b> <b>Year 3</b> 35 Hours</p>	<p style="text-align: center;">Change</p>	<p style="text-align: center;">representation</p>	<p style="text-align: center;">Orientation in space and time</p>	<p style="text-align: center;">Understanding change of geometric figures can help</p>	<p><b>A – Knowing and understanding</b></p> <ul style="list-style-type: none"> <li>i. select appropriate mathematics when solving problems</li> </ul>	<p style="text-align: center;">Research, thinking, social, communication</p>	<p style="text-align: center;">Transformations( translation, rotation, dilation reflection), algebraic</p>

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				<p>us better understand their representation and orientation in space and time</p>	<p>ii. apply the selected mathematics successfully when solving problems          iii. solve problems correctly in both familiar and unfamiliar situations in a variety of contexts.</p> <p><b>B – Investigating patterns</b></p> <p>i. select and apply mathematical problem-solving techniques to discover complex patterns          ii. describe patterns as general rules consistent with findings</p> <p><b>D – Applying mathematics in real-life contexts</b></p> <p>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</p>		<p>representation of transformations, Congruent figures. Angle relationships, Pythagorean theorem, volume, distance between points, Scatter plots trend lines and predictions.</p>
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