

## Maths

Topic	Key Concepts	Related Concepts	Theme	ATL skills	Lines of Inquiry	Summative Assessments	Assessment Objectives
<b>1 - Numbers to 10'000</b> 1A - Place Value 1B - Compare & Order Numbers 1C - Number Patterns 1D - Rounding Numbers  <b>2 - Addition &amp; Subtraction Within 10'000</b> 2A - Addition & Subtraction within 1'000 2B - Addition & Subtraction within 10'000 2C - Other Addition & Subtraction Strategies 2D - Word Problems	Form Function	Timelines	Who We Are	<b>Social Skills</b> Developing social-emotional intelligence  <b>Research Skills</b> Information-literacy skills (formulation and planning, data gathering and recording, synthesising and interpreting, evaluating and communicating) Ethical use of media/information (understanding and applying social and ethical technology)	- Our own cultural heritage - Generational changes - Cultural similarities and differences	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with Singapore mathematics and adapted from the online teachers platform.	To be able to state the place value of a digit within a 4 digit number Compare and order numbers within 10,000 using greater than, less than or equal signs Subtract and add 10,100 or 1000 from a number within 10,000 Subtract and add within 10,000 using a numberline along with mentally



<b>3 - Multiplication &amp; Division</b> 3A - Multiplication 3B - Multiply by 2 3C - Multiply by 5 3D - Multiply by 10 3E - Multiply by 3 3F - Multiply by 4 3G - Word Problems 3H - Division 3I - Divide by 2 3J - Divide by 5 3K - Divide by 10 3L- Divide by 3	Form Function Perspective	Measurement Time	Sharing The Planet	<b>Thinking Skills</b> Critical-thinking skills (analysing and evaluating issues and ideas) Reflections/metacogniti on skills (reconsidering the process of learning)  <b>Communication skills</b> ICT skills (using technology to gather, investigate and communicate information)	- How does weather influence the way people live - What are the elements of weather - How can we influence the climate	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with singapore mathematics and adapted from the online teachers platform.	Multiply fluently using multiplication facts of 2, 3, 4 and 5 Use drawing and equations to solve multiplication word problems Divide by sharing equally into a given number of groups
<b>4 - Multiplication &amp; Division of 6, 7, 8, 9.</b> 4A - Multiply & Divide by 6 4B - Multiply & Divide by 7 4C - Multiply & Divide by 8 4D - Multiply & Divide by 9 4E - Multiply by Tens 4F - Multiply a 2 digit number by a 1 digit number 4G - Word Problems  <b>5 - Time</b> 5A - Hours & Minutes 5B - Word Problems	Change Form Connection		How We Express Ourselves	<b>Communication Skills</b> Exchanging-information skills (listening, interpreting, speaking) Literacy skills (reading, writing and using language to gather and communicate information)  <b>Thinking Skills</b> Creative-thinking skills (generating novel ideas and considering new perspectives)	- Forms of performing arts - How to create a successful performance - Similarities and differences between the features of Performing Arts	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with Singapore mathematics and adapted from the online teachers platform.	To be able to multiply fluently by using multiplication facts of 7, 8 and 9 Solve two part worded problems using the four operations Draw bar models to represent mathematical statements Solve worded problems using involving duration using a timeline



<b>6 - Area &amp; Perimeter</b> 6A - Area 6B - Area of Squares & Rectangles 6C - Perimeter 6D - Composite Figures 6E - Word Problems	Change Form Connection	Time Length & Distance	Where We Are In Place and Time	<b>Research Skills</b> Media literacy skills (interacting with media to use and create ideas and information)  <b>Self management</b> Organization skills (managing time and tasks effectively)	- How exploration has taken place over time - Reasons people explore - Explorers and explorations	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with Singapore mathematics and adapted from the online teachers platform.	Compare the area of figures in square centimetres and square inches Calculate the perimeter of a figure by adding the side lengths Calculate an unknown side length given the perimeter Calculate the area of composite figures
<b>7 - Fractions</b> 7A - Unit Fractions 7B - More Fractions 7C - Fractions Greater Than 1 7D - Compare & Order Fractions 7E - Equivalent Fractions 7F - Fractions on a Number Line 7G - Fractions of a Set  <b>8 - Mass &amp; Liquid Volume</b> 8A - Measure Mass in Kilograms 8B - Measure Mass in Grams 8C - Measure Volume in Litres 8D - Word Problems	Change Connection Causation		How The World Works	<b>Thinking Skills</b> Transfer skills (using skills and knowledge in multiple contexts) Creative-thinking skills (generating novel ideas and considering new perspectives)  <b>Social skills</b> Developing positive interpersonal relationships and collaboration skills (using self-control, managing setbacks, supporting peers)	- Different types of forces and how they work - The relationship between force and motion - How we use our knowledge of forces to invent	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with Singapore mathematics and adapted from the online teachers platform.	Read write and identify fractions as a part of a whole Compare fractions with the same numerators Identify equivalent fractions Identify fractions of a set Measure and estimate the mass of objects to the nearest gram and kilogram Measure and estimate liquid volumes to the nearest litre Solve word problems involving mass and liquid volume



<b>9 - Data</b> 9A - Picture Graphs 9B - Bar Graphs 9C - Line Plots  <b>10 - Shapes</b> 10A - Angles & Shapes	Perspective Form Connection	Number Addition Subtraction Multiplication Division Decimals Percentages	How We Organise Ourselves	<b>Communication skills</b> ICT skills (using technology to gather, investigate and communicate information)  <b>Self-management skills</b> States of mind (mindfulness, perseverance, emotional management, self-motivation, resilience)	- Needs versus wants - Financial systems - Home to make a business successful	Singapore Maths Unit Review - End of unit assessments (chapter, cumulative and end of year assessments). Assessments to be aligned with Singapore mathematics and adapted from the online teachers platform.	To be able to read and interpret pictograms To be able to read and interpret bar charts Generate and show measurement data by making line plots
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## Taking Action

Taking action is one of the five essential elements of the PYP and an intricate part of the inquiry cycle which could be interpreted as a “conclusion” to learning. When taking action, students make connections to new knowledge they have acquired and apply their skills in everyday life.

