

# Math

## Syllabus: Grade 1

<b>Rationale for Learning Mathematics</b>  *Gain an appreciation for the important role mathematics plays in modern society.  *Develop enough mathematical literacy to enable students to function at their maximum potential in a modern economy.  *Develop the ability to estimate solutions, compute accurately, assess the reasonableness of their answers, and reason logically and critically.	<b>Class Rules:</b>  <ol style="list-style-type: none"><li>1. Arrive on time, prepared, and ready to learn</li><li>2. Respect yourself and others</li><li>3. Make friends and be thoughtful</li><li>4. Take turns speaking and listening</li><li>5. Say Please and Thank you</li><li>6. Try your best!</li></ol>
<b>Math Strands</b>  The Palau mathematics curriculum framework is organized under the following 5 STRANDS, or content themes, that run across grades 1 through 12.  <ol style="list-style-type: none"><li>1. Number Sense, Properties, and Operations</li><li>2. Unit Systems and Measurement</li><li>3. Spatial Sense and Geometry</li><li>4. Data, Statistical Analysis, and Probability</li><li>5. Patterns, Functions, and Algebra</li></ol>	<b>Math Resources and Materials</b>  Grade 1 Primary Math Textbooks (Singapore math textbooks aligned to U.S) Volume A & B  <b>Computation of Letter Grade:</b>  <ul style="list-style-type: none"><li>• 90%-100%. .....A</li><li>• 80%-89%. ..... B</li><li>• 70%-79%. ..... C</li><li>• 65%-69%. ..... D</li><li>• 0%-64%. .....F</li></ul> <b>Methods of Evaluation:</b> Quarterly grade for Grade 1-8 is based on:  A. 85% = Class Average * Class Average = 70% Test + 30% Other Components such as quizzes, group works, classwork, homework, self-assessments, experiments/demonstrations/research/project  B. 15% = Quarter Exam

Strand/Topics	Grade 1
Number Sense, Properties, and Operations	<ul style="list-style-type: none"> <li>• Read, write, and order the counting numbers from 0-20, and represent a number of objects with a written numeral or number name 0-20.</li> <li>• Count forward beginning from a given number within 20 (instead of having to begin at 1).</li> <li>• Count to 100, starting any number less than 100.</li> <li>• Identify place values for numbers from 1 to 100 and use manipulative materials to represent packages of ones and tens or their combinations.</li> <li>• Round whole numbers to the nearest 10 using place value understanding.</li> <li>• Compare and order numbers in the range of 1 to 100 based on meanings of the tens, and ones digits, and use the symbols <math>&gt;</math>, <math>&lt;</math>, and <math>=</math> to record the results of comparisons.</li> <li>• Identify even or odd number of objects/members (from 1 to 100) by pairing or matching objects or by counting them by 2s.</li> <li>• Skip count within 100 by 2s, 5s, and 10s.</li> <li>• Write and recall all basic addition and subtraction facts through 10 and all possible addition combinations that will produce a given sum from 1 to 10, including the use of an equation.</li> <li>• Mentally add or subtract 10, given a number from 1 to 99, without having to count.</li> <li>• Determine the unknown or solve picture problem involving whole number in a multiplication or division, with or without a remainder, in situational contexts.</li> <li>• Explain multiplication and division of two 1-digit numbers using equation and illustrate it using materials, repeated addition or the number line, rectangular arrays, and/or area models.</li> </ul>
Unit Systems and Measurement	<ul style="list-style-type: none"> <li>• Describe and compare measureable attributes of objects, such as length or weight, and several measureable attributes of a single object.</li> <li>• Compare two objects with a measureable attribute in common, to see which object has “more of”/“less of” the attribute, and describe the difference.</li> <li>• Describe and write the length of an object as whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end.</li> </ul>
Spatial Sense and Geometry	<ul style="list-style-type: none"> <li>• Recognize and name the four basic shapes: circle, triangle, square, and rectangle.</li> <li>• Identify shapes as 2-D (lying in a plane, “flat”) or 3-D (“solid”)</li> <li>• Manipulate simple shapes and figures to determine how they fit together to make larger shapes and figures.</li> <li>• Manipulate 2-D shapes and figures (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) to create composite 2-D shapes.</li> <li>• Describe local and everyday objects using names of shapes, and describe the relative positions of these objects using term such as above, below, beside, in front of, behind, and next to.</li> </ul>
Data, Statistical Analysis, and Probability	<ul style="list-style-type: none"> <li>• Use data to answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.</li> <li>• Create simple picture graphs using one-to-one representation.</li> <li>• Organize, represent, and interpret data in a picture graph with up to three categories (e.g. class survey).</li> </ul>