

# SRI LANKAN SCHOOL - MUSCAT

## SCHEME OF WORK YEAR 2016 / 17

CLASS : 7

SUBJECT: Mathematics

TEACHERS : Mrs. Indikka Korala, Janaka Jayasooriya , John T Gnananesan, Ms.Melisha

Month	No. of Periods	Unit No.	TOPIC / DETAILS	Intended Learning Outcomes (Students will be able to .....)	date of completion	remarks
<b>September School Reopens - 1st Term</b>						
<b>Week 1</b> 31Aug-01 Sept	2	1.1	<b>Place value Ordering and Rounding</b> <ul style="list-style-type: none"> <li>Decimal Place value</li> <li>+ and – multiples of 0.1, 0.01 &amp;0.001</li> <li>multiplying &amp; Dividing by powers of 10</li> </ul>	<ul style="list-style-type: none"> <li>Use decimal notation and place value</li> <li>X and ÷ integers and decimals by 10,100,1000 and explain the effect,</li> <li>Compare &amp; order decimals in different context</li> <li>Put decimals in order</li> <li></li> </ul>		
<b>Week 2</b> 04-08 Sept	7	1.2	<ul style="list-style-type: none"> <li>Identify negative numbers as positions on a number line</li> <li>Use the number line to + &amp; - positive &amp; negative integers</li> </ul>			
<b>Week 3</b> 11-15 Sept	7	<b>Eid Ul Adha</b>				
<b>Week 4</b> 18-22 Sept	7		<ul style="list-style-type: none"> <li>rounding to the nearest 10, 100, 1000, 10000...</li> <li>rounding to the nearest whole number or to 1 or 2 decimal places</li> </ul>	<ul style="list-style-type: none"> <li>round to the nearest 10, 100, 1000, 10000... whole number or to 1 or 2 decimal places</li> </ul>		
		2.1	<b>Special Numbers</b> <ul style="list-style-type: none"> <li>+,-,÷, x integers</li> <li>divisibility</li> </ul>	<ul style="list-style-type: none"> <li>Use the number line to + &amp; - positive &amp; negative integers</li> <li>solve integer + - x &amp; ÷ problems</li> </ul>		
<b>Week 5</b> 25-29 Sept	7	2.2	<ul style="list-style-type: none"> <li>Factors, HCF, LCF</li> <li>Prime numbers</li> <li>Squares, Square root, cube , cubic root</li> </ul>	<ul style="list-style-type: none"> <li>use multiples, factors(divisors), common factor and primes(less than 100)</li> <li>Find LCM and HCF of numbers</li> </ul>		

				<ul style="list-style-type: none"> <li>• use simple tests of divisibility</li> <li>• Find prime factor decomposition of a number.</li> <li>• recognize first few triangular, square numbers at least 12 x 12 and the corresponding roots</li> <li>• Use calculators to calculate squares and square roots.</li> </ul>		
<b>Week 6</b> <b>03-06</b> <b>Oct</b>	6		Calculator Squares, Square roots	<ul style="list-style-type: none"> <li>• Use calculators to calculate squares and square roots.</li> </ul>		

## October

<b>Week7</b> <b>09-13</b> <b>Oct</b>	7	3.1	<b>Mental Calculation –whole numbers &amp; decimals</b> <ul style="list-style-type: none"> <li>• Order of operation</li> <li>• adding , subtracting Multiply &amp; dividing whole nos.</li> </ul>	<ul style="list-style-type: none"> <li>• use order of operations, including brackets, with more complex calculations</li> <li>• break a simple calculation into simpler steps</li> <li>• solve problems mentally</li> <li>• choose and use appropriate and efficient operations and methods</li> </ul>		
<b>Week 8</b> <b>16-20</b> <b>Oct</b>	7	3.2	<ul style="list-style-type: none"> <li>• adding, subtracting Multiply &amp; dividing decimals.</li> </ul>			
<b>Week9</b> <b>23-27</b> <b>Oct</b>	7	3.3	<ul style="list-style-type: none"> <li>• Estimate answers to calculations</li> <li>• Solving Problems mentally</li> </ul>	<ul style="list-style-type: none"> <li>• Estimate answers to calculations</li> </ul>		

## November

<b>Week10</b> <b>31<sup>st</sup> Oct-</b> <b>3<sup>rd</sup> Nov;</b>	6		<p style="text-align: center;"><b>Assessment</b></p> <p><b>Written and calculator Calculation</b></p> <ul style="list-style-type: none"> <li>• adding, subtracting, multiplying &amp; dividing. checking if the answers are sensible</li> <li>• check answers using inverse operations</li> <li>• check answers using an equivalent calculation</li> <li>• brackets on a calculator</li> </ul>	<ul style="list-style-type: none"> <li>• Carry out calculations with more than 1 step using brackets and the memory</li> <li>• Carry out more difficult calculations Using function keys <math>\sqrt{\quad}</math> &amp; sign change, power, memory keys</li> <li>• Check a result by considering whether it is in the right order of magnitude</li> </ul>		
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<b>Week 11</b> <b>06-10</b> <b>Nov</b>	7	4.1	<b>Fractions-ordering fractions</b> <ul style="list-style-type: none"> <li>fractions of shapes</li> <li>fractions and decimals</li> <li>comparing fractions one number as a fraction of the another.</li> <li>+ &amp; - fractions</li> <li>fractions of and <math>\times</math> &amp; <math>\div</math> an integer by a fraction</li> </ul>	<ul style="list-style-type: none"> <li>Use diagrams to compare simple fractions</li> <li>Use mental methods of calculations to include decimals, fractions and decimals</li> <li>Recognize equivalence of %, fractions &amp; decimals</li> <li>Calculate simple percentages</li> <li>Recall fraction to decimal conversion</li> <li>Simplify fractions by cancelling all common factors</li> </ul>		
<b>Week 12</b> <b>13-17</b> <b>Nov</b>	7	5.1	<b>Percentages, Fractions Decimals</b> <ul style="list-style-type: none"> <li>% to fractions &amp; decimals</li> <li>Fractions &amp; decimals to %</li> <li>% of ---- mentally</li> </ul>	<ul style="list-style-type: none"> <li>Find the outcome of a given % increase or decrease</li> </ul>		
<b>Week 13</b> <b>20-24</b> <b>Nov</b>	7	5.2	<ul style="list-style-type: none"> <li>% of --- using the calculator</li> <li>percentage increase and decrease.%</li> <li>Mixed percentage calculations</li> </ul>			
<b>Week 14</b> <b>27Nov-</b> <b>01 Dec</b>	6	6.1	<ul style="list-style-type: none"> <li>solve ratio and proportion problems</li> <li>dividing in a given ratio</li> </ul>	<ul style="list-style-type: none"> <li>Solve simple problems about ratio and proportion using informal strategies</li> <li>Divide a quantity into 2 parts in a given ratio</li> </ul>		
			Assessment			
<b>December</b>						
<b>Week 15</b> <b>04-08</b> <b>Dec</b>	<b>Revision &amp; First Term Test</b>					
<b>Week 16</b> <b>11-15</b> <b>Dec</b>	<b>First Term Test</b>					
<b>Week 17</b> <b>18-22</b> <b>Dec</b>	<b>Paper Correction &amp; PTI</b>					

<b>Week 18</b> <b>25-29</b> <b>Dec</b>	<b>First Term Vacation</b>						
<b>January</b>							
<b>week 19</b> <b>01-05</b> <b>Jan</b>	<b>First Term Vacation</b>						
<b>Second Term</b>							
<b>Week 20</b> <b>08-12</b> <b>Jan</b> <b>2017</b>	7	7.1	<b>Discussion of term test paper.</b> <b>Algebra Support</b> <ul style="list-style-type: none"> <li>• writing expressions.</li> <li>• Collecting like terms</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Use symbols to represent unknown numbers or variables</li> <li>• Perform algebraic operations by following same conventions and order as arithmetic operations</li> <li>• Simplify or transform linear expressions by collecting like terms</li> <li>• Multiply a single digit over a bracket</li> <li>• Construct and solve simple linear simple equations with integer coefficients using known on one side method</li> <li>• Use simple formulae from math &amp; other subjects</li> <li>• Substitute positive integers into simple linear expressions and formulae</li> <li>• Derive a formula in simple cases</li> </ul>			
<b>Week 21</b> <b>15-19</b> <b>Jan</b>	7	7.2	<ul style="list-style-type: none"> <li>• Formulae</li> <li>• Write formulae &amp; expressions, equations</li> <li>• Solving equations using inverse operation, transforming both sides</li> </ul>				
<b>Week 22</b> <b>22-26</b> <b>Jan</b>	7	8.1	<ul style="list-style-type: none"> <li>• Simplify expressions by cancelling, brackets, substituting</li> </ul>				
<b>Week 23</b> <b>29Jan-</b> <b>02Feb</b>	7	8.2	<b>Sequences &amp; functions</b> <ul style="list-style-type: none"> <li>• Sequences with geometric patterns</li> <li>• Write seq. From rules &amp; n<sup>th</sup> term</li> </ul>		<ul style="list-style-type: none"> <li>• Generate and describe simple integer sequences</li> <li>• Generate terms of simple sequence, given a rule</li> <li>• Generate a sequence from a practical context</li> <li>• Describe general term in simple cases</li> </ul>		

## February

<b>Week 24</b> 05-09 Feb	7	9.1	<ul style="list-style-type: none"> <li>Function for given inputs and outputs</li> <li>Find input for given output</li> </ul>	<ul style="list-style-type: none"> <li>Express simple functions in words, then Using symbols, represent them in mapping</li> </ul>		
<b>Week 25</b> 12-16 Feb	7	9.2	<b>Graphs</b> <ul style="list-style-type: none"> <li>Work out the plot</li> <li>Coordinate pairs</li> <li>Straight line graphs</li> </ul>	<ul style="list-style-type: none"> <li>Generate co ordinate pairs that satisfy a simple rule</li> <li>Plot graphs of simple linear functions</li> </ul>		
<b>Week 26</b> 19-23 Feb	7	10.1	<p style="text-align: center;">Assessment</p> <ul style="list-style-type: none"> <li>Lines parallel to x &amp; y axis</li> </ul>			
<b>week 27</b> 26Feb- 02 Mar	7	10.2	<ul style="list-style-type: none"> <li>Read &amp; draw real life graphs</li> <li>Interpret &amp; sketch real life graphs</li> </ul>	<ul style="list-style-type: none"> <li>Begin to plot &amp; interpret simple linear functions arising from real life situations</li> </ul>		

## March

<b>Week 28</b> 05-09 Mar	7	11.1 11.2	<b>Line &amp; angles</b> <ul style="list-style-type: none"> <li>Straight or curved</li> <li>Name line &amp; angles</li> <li>Parallel &amp; perpendicular lines</li> <li>Construct lines &amp; bisectors</li> <li>Angles</li> </ul>	<ul style="list-style-type: none"> <li>Use correctly the vocabulary, notation and labelling convections for lines, angles and shapes.</li> <li>Identify parallel &amp; perpendicular lines</li> <li>realise the sum of angles at a point , on a straight line and in a triangle</li> <li>Recognize vertically opposite angles</li> <li>Identify alternate &amp; corresponding angles</li> <li>Identify &amp; use angle, side and symmetry properties of triangles and quadrilaterals to solve geometrical problems</li> <li>Use step by step deduction &amp; explaining reasoning with diagrams</li> </ul>		
<b>Week 29</b> 12-16 Mar	7	12.1 12.2	<ul style="list-style-type: none"> <li>Angles made with parallel lines</li> <li>Angles in triangles</li> </ul> <b>Shape. Construction</b> <ul style="list-style-type: none"> <li>Naming triangles</li> <li>Describe &amp; sketch 2D shapes</li> <li>Properties of triangles, quadrilaterals and polygons</li> <li>Tessellations</li> <li>Construct triangles and quadrilaterals</li> <li>Describe &amp; sketch 3D shapes</li> <li>Nets</li> </ul>			

**Week 30**  
19-23  
Mar

**Revision & Second Term Test**

<b>Week 31</b> <b>26-30</b> <b>Mar</b>	<b>Second Term Test</b>					
<b>Week 32</b> <b>02-06</b> <b>April</b>	<b>Paper Correction &amp; PTI</b>					
<b>Week 33</b> <b>09-13</b> <b>Aril</b>	<b>Second Term Vacation</b>					
<b>week 34</b> <b>18-20</b> <b>April</b>	5	13.1	<b>Coordinates &amp; transformations</b> <ul style="list-style-type: none"> <li>Coordinates</li> </ul>	<ul style="list-style-type: none"> <li>use convections &amp; notation for 2D coordinates of points determined by geometric information</li> </ul>		
<b>week 35</b> <b>23-27</b> <b>April</b>	6	13.2	<ul style="list-style-type: none"> <li>Reflection, rotation &amp; translation</li> <li>Combinations of transformations</li> <li>Symmetry</li> <li>Enlargement</li> </ul>	<ul style="list-style-type: none"> <li></li> </ul>		
<b>May</b>						
<b>Week 36</b> <b>30April-</b> <b>04 May</b>	7	14.2	<b>Measure</b> <ul style="list-style-type: none"> <li>Metric units</li> <li>Solve measure problems Perimeter and area of triangle, parallelogram, rectangle &amp; trapezium</li> <li>Surface area</li> <li>volume</li> </ul>	<ul style="list-style-type: none"> <li>use names and abbreviations of units of measurement to measure</li> <li>convert one metric unit to another</li> <li>read &amp; interpret scales on a range of measuring instruments</li> <li>estimate, calculate and solve problems in everyday life involving length, area</li> </ul>		
<b>Week 37</b> <b>07-10</b> <b>May</b>	6	15.1	<b>Planning &amp; collecting data</b> <ul style="list-style-type: none"> <li>Surveys planning and collecting data</li> <li>Discrete &amp; continuous data</li> <li>Grouping continuous data</li> </ul>	<ul style="list-style-type: none"> <li>Recognise discrete &amp; continuous data</li> <li>Conduct a survey by using the best data collection method</li> </ul>		
<b>Week 38</b> <b>14-18</b> <b>May</b>	7	17	Assessment <b>Mode, mean, median. Display data</b> <ul style="list-style-type: none"> <li>Averaging</li> <li>Mode mean, median &amp; range</li> </ul>	<ul style="list-style-type: none"> <li>calculate statistics for small set of discrete data(mode, median, range , mean and modal class for grouped data</li> </ul>		
<b>Week 39</b> <b>21-25</b> <b>May</b>	7	17	<ul style="list-style-type: none"> <li>Bar &amp; line graphs</li> <li>Frequency diagrams</li> <li>Drawing pie charts</li> <li>draw conclusions based on the shape of the graph</li> </ul>			

## June

<b>Week 40</b> 28May-01June	7	16	<b>Interpreting graphs. Comparing data</b> <ul style="list-style-type: none"> <li>Interpreting graphs</li> <li>Comparing data</li> </ul>	<ul style="list-style-type: none"> <li>interpret diagrams &amp; graphs</li> </ul>	
<b>Week 41</b> 04-08 June	8	18.1	<b>Probability</b> <ul style="list-style-type: none"> <li>Probability scale outcomes</li> <li>Calculate Probability</li> <li>Comparing calculated &amp; experimental probability</li> </ul>	<ul style="list-style-type: none"> <li>use vocabulary and ideas of probability</li> <li>use probability scale from 0 – 1</li> <li>find and justify probabilities based on equally likely outcomes in simple context</li> <li>collect data from a simple experiment</li> <li>record data in a frequency table, estimate probabilities based on this data</li> </ul>	
<b>Week 42</b> 11-15 June	<b>Revision &amp; Third Term Test</b>				
<b>Week 43</b> 18-22 June	<b>Third Term Test</b>				
<b>Week 44</b> 28-29 June	<b>Paper Correction</b>				
<b>July</b>					
<b>Week 45</b> 02-05 July	<b>Paper Correction &amp; PTI End of The Academic Year</b>				