

# The Sultan's School Mathematics Year 3 Medium-Term Plans

Unit 1		
<i>Number -</i>		<i>Geometry -</i>
Number & place value	Addition & subtraction	Properties of shape

Unit 9		
<i>Number -</i>		<i>Geometry -</i>
Number & place value	Addition & subtraction	Properties of shape

Unit 2		
<i>Number -</i>		<i>Measurement (mass)</i>
Multiplication & division including Number & place value	Fractions	

Unit 10		
<i>Number -</i>		<i>Measurement (volume &amp; capacity)</i>
Multiplication & division	Fractions	

Unit 3		
<i>Number -</i>		<i>Geometry -</i>
Addition & subtraction	Addition & subtraction	Properties of shape

Unit 5		
<i>Number -</i>		<i>Geometry -</i>
Number & place value	Addition & subtraction including <i>Measurement (money)</i>	Properties of shape

Unit 11		
<i>Number -</i>		<i>Measurement (time)</i>
Addition & subtraction including <i>Measurement (money)</i>	Addition & subtraction	

Unit 4		
<i>Number -</i>		<i>Measurement (time)</i>
Multiplication & division including Number & place value	Multiplication & division including Number & place value	

Unit 6		
<i>Number -</i>		<i>Measurement (length)</i>
Multiplication & division including Number & place value	Fractions	

Unit 12		
<i>Number -</i>		<i>Statistics</i>
Multiplication & division	Multiplication & division	

Unit 7		
<i>Number -</i>		<i>Statistics</i>
Addition & subtraction	Addition & subtraction	

Unit 8		
<i>Number -</i>		<i>Measurement (perimeter)</i>
Multiplication & division	Fraction	

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<b>Unit 1</b> <b>Number – Number and place value</b> <b>Number – Addition and subtraction</b> <b>Geometry – Properties of shape</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Number and place value</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>compare and order numbers up to 1000</li> <li>read and write numbers up to 1000 in numerals</li> <li>solve number problems and practical problems involving these ideas</li> </ul>	<ul style="list-style-type: none"> <li>Consolidate recognising the place value of each digit in a two-digit number (tens, ones)</li> <li>Represent numbers using Base 10 material</li> </ul>	1
	<ul style="list-style-type: none"> <li>Consolidate partitioning two-digit numbers in varied ways</li> <li>Represent numbers using Base 10 material</li> </ul>	2
	<ul style="list-style-type: none"> <li>Recognise the place of value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>Represent numbers using Base 10 material</li> <li>Read and write numbers up to 1000 in numerals</li> </ul>	3
	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> <li>Solve number problems and reason mathematically</li> </ul>	4
<b>Number – Addition and subtraction</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100. *</li> <li>add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Add mentally two, two-digit numbers</li> </ul>	1
	<ul style="list-style-type: none"> <li>Add mentally a three-digit number and ones</li> <li>Add mentally a three-digit number and tens</li> </ul>	2
	<ul style="list-style-type: none"> <li>Subtract mentally two, two-digit numbers</li> </ul>	3
	<ul style="list-style-type: none"> <li>Subtract mentally a three-digit number and ones</li> <li>Subtract mentally a three-digit number and tens</li> </ul>	4
<b>Geometry – Properties of shape</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and name 3-D shapes lying in any position</li> </ul>	1
	<ul style="list-style-type: none"> <li>Make models of 3-D shapes using straws and 2-D shapes</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use properties to classify and describe 3-D shapes</li> </ul>	3
	<ul style="list-style-type: none"> <li>Build 3-D shapes with cubes</li> </ul>	4

<b>Unit 2</b> <b>Number – Multiplication and division, including Number and place value</b> <b>Number – Fractions</b> <b>Measurement (mass)</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Multiplication and division</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3 multiplication table</li> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in multiples of 2, 3, 5 and 10</li> <li>Find 10 more or less than a given number</li> </ul>	1
	<ul style="list-style-type: none"> <li>Consolidate multiplication and division facts for the 2, 5 and 10 multiplication tables</li> <li>Solve problems involving multiplication and division facts of the 2, 5 and 10 multiplication tables and reason mathematically</li> </ul>	2
	<ul style="list-style-type: none"> <li>Recall the multiplication and division facts for the 3 multiplication table</li> <li>Understand that multiplication can be done in any order</li> </ul>	3
<b>Number – Number and place value</b>		
<ul style="list-style-type: none"> <li>find 10 more or less than a given number</li> </ul>	<ul style="list-style-type: none"> <li>Use known number facts and place value to derive multiplication facts for the 2, 3 and 5 multiplication tables involving multiples of 10, e.g. <math>40 \times 3 = 120</math></li> <li>Solve problems involving multiplication and division facts of the 3 multiplication table and reason mathematically</li> </ul>	4
<b>Number – Fractions</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>add fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>]</li> <li>solve problems that involve all of the above</li> </ul>	<ul style="list-style-type: none"> <li>Recognise, find and write unit fractions of a set of objects</li> </ul>	1
	<ul style="list-style-type: none"> <li>Recognise, find and write unit fractions of a set of objects</li> <li>Solve fraction problems and reason mathematically</li> </ul>	2
	<ul style="list-style-type: none"> <li>Recognise, find and write non-unit fractions of a set of objects</li> <li>Solve fraction problems and reason mathematically</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add fractions with the same denominator</li> </ul>	4
<b>Measurement (mass)</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>measure, compare, add and subtract mass (kg/g)</li> </ul>	<ul style="list-style-type: none"> <li>Know the equivalent of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math> and <math>\frac{3}{4}</math> of 1 kilogram in grams</li> </ul>	1
	<ul style="list-style-type: none"> <li>Read scales marked in kilograms and in grams</li> </ul>	2
	<ul style="list-style-type: none"> <li>Measure and compare mass; use simple scaling of quantities and equivalents of mixed units</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add and subtract mass using mixed units</li> </ul>	4

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Unit 3 Number – Addition and subtraction Geometry – Properties of shape		
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson
Number – Addition and subtraction	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>three-digit number and hundreds</li> </ul> </li> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Add mentally a three-digit number and ones</li> <li>Solve missing number problems</li> </ul>	1
	<ul style="list-style-type: none"> <li>Add mentally a three-digit number and tens</li> <li>Solve missing number problems</li> </ul>	2
	<ul style="list-style-type: none"> <li>Add mentally a three-digit number and hundreds</li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve problems and reason mathematically</li> </ul>	4
	<b>Week 2</b>	
	<ul style="list-style-type: none"> <li>Subtract mentally a three-digit number and ones</li> <li>Solve missing number problems</li> </ul>	1
	<ul style="list-style-type: none"> <li>Subtract mentally a three-digit number and tens</li> <li>Solve missing number problems</li> </ul>	2
	<ul style="list-style-type: none"> <li>Subtract mentally a three-digit number and hundreds</li> <li>Solve problems and reason mathematically</li> </ul>	4
Geometry – Properties of shape	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>recognise angles as a property of shape or a description of a turn</li> <li>identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</li> </ul>	<ul style="list-style-type: none"> <li>Identify right angles in 2-D shapes</li> </ul>	1
	<ul style="list-style-type: none"> <li>Make and describe right-angled turns</li> </ul>	2
	<ul style="list-style-type: none"> <li>Give and follow directions to make turns</li> </ul>	3
	<ul style="list-style-type: none"> <li>Test whether angles are greater than or less than a right angle</li> </ul>	4

Unit 4 Number – Multiplication and division, including Number and place value Measurement (time)		
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson
Number – Multiplication and division	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 4 and 8 multiplication tables</li> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in multiples of 4</li> </ul>	1
	<ul style="list-style-type: none"> <li>Recall the multiplication and division facts for the 4 multiplication table</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use doubling to recall the multiplication facts for the 4 multiplication table</li> <li>Use known number facts and place value to derive multiplication facts for the 4 multiplication table involving multiples of 10, e.g. <math>30 \times 4 = 120</math></li> </ul>	3
	<ul style="list-style-type: none"> <li>Understand that division is the inverse of multiplication and vice versa</li> <li>Say or write a division statement corresponding to a given multiplication statement involving all known multiplication tables</li> </ul>	4
Number – Number and place value	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>count from 0 in multiples of 4 and 8</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in multiples of 8</li> </ul>	1
	<ul style="list-style-type: none"> <li>Recall the multiplication and division facts for the 8 multiplication table</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use doubling to recall the multiplication facts for the 8 multiplication table</li> <li>Use known number facts and place value to derive multiplication facts for the 8 multiplication table involving multiples of 10, e.g. <math>30 \times 8 = 240</math></li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve problems involving multiplication and division facts for the 4 and 8 multiplication tables and reason mathematically</li> </ul>	4
Measurement (time)	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>estimate and read time with increasing accuracy to the nearest minute; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</li> </ul>	<ul style="list-style-type: none"> <li>Tell and write the time to the nearest minute on a 12-hour clock with hands</li> </ul>	1
	<ul style="list-style-type: none"> <li>Use a time line and read vocabulary related to time</li> </ul>	2
	<ul style="list-style-type: none"> <li>Read time to the nearest minute on a 12-hour clock with Roman numerals and on a 24-hour clock</li> </ul>	3
	<ul style="list-style-type: none"> <li>Estimate and measure time to the nearest minute</li> </ul>	4

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<b>Unit 5</b> <b>Number – Number and place value</b> <b>Number – Addition and subtraction, including Measurement (money)</b> <b>Geometry – Properties of shape</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Number and place value</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>compare and order numbers up to 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>read and write numbers up to 1000 in numerals and in words</li> <li>solve number problems and practical problems involving these ideas</li> </ul>	<ul style="list-style-type: none"> <li>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>Represent numbers using Base 10 material</li> </ul>	1
	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> </ul>	2
	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> <li>Read and write numbers up to 1000 in numerals and in words</li> <li>Represent and estimate numbers using money</li> </ul>	3
	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> <li>Solve number problems and reason mathematically</li> </ul>	4
<b>Number – Addition and subtraction</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Add amounts of money</li> </ul>	1
	<ul style="list-style-type: none"> <li>Subtract amounts of money to give change</li> </ul>	2
	<ul style="list-style-type: none"> <li>Add and subtract amounts of money</li> </ul>	3
<b>Measurement (money)</b>	<ul style="list-style-type: none"> <li>Solve problems involving money and reason mathematically</li> </ul>	4
<b>Geometry – Properties of shape</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>draw 2-D shapes and describe them</li> <li>recognise angles as a property of shape</li> </ul>	<ul style="list-style-type: none"> <li>Draw and name 2-D shapes</li> </ul>	1
	<ul style="list-style-type: none"> <li>Make shapes that match a property</li> </ul>	2
	<ul style="list-style-type: none"> <li>Create 2-D shapes using folding and cutting</li> </ul>	3
	<ul style="list-style-type: none"> <li>Describe the properties of 2-D shapes</li> </ul>	4

<b>Unit 6</b> <b>Number – Multiplication and division, including Number and place value</b> <b>Number – Fractions</b> <b>Measurement (length)</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Multiplication and division</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 4 and 8 multiplication tables</li> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in multiples of 2, 4 and 8</li> </ul>	1
	<ul style="list-style-type: none"> <li>Use halving to recall the division facts for the 4 multiplication table</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use halving to recall the division facts for the 8 multiplication table</li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve problems and reason mathematically</li> </ul>	4
<b>Number – Number and place value</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>count from 0 in multiples of 4 and 8</li> </ul>	<ul style="list-style-type: none"> <li>Recognise, find and write unit fractions of a set of objects</li> <li>Solve fraction problems and reason mathematically</li> </ul>	1
<b>Number – Fractions</b>	<ul style="list-style-type: none"> <li>Recognise, find and write non-unit fractions of a set of objects</li> <li>Solve fraction problems and reason mathematically</li> </ul>	2
<ul style="list-style-type: none"> <li>recognise, find and write fractions of a discrete set of objects: unit and non-unit fractions with small denominators</li> <li>recognise and use fractions as numbers: unit and non-unit fractions with small denominators</li> <li>compare and order unit fractions, and fractions with the same denominator</li> <li>solve problems that involve all of the above</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order unit fractions, and fractions with the same denominator</li> </ul>	3
	<ul style="list-style-type: none"> <li>Recognise fractions as numbers</li> </ul>	4
<b>Measurement (length)</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>measure, compare, add and subtract lengths (m/cm/mm)</li> </ul>	<ul style="list-style-type: none"> <li>Use a ruler to draw and measure lines to the nearest centimetre</li> </ul>	1
	<ul style="list-style-type: none"> <li>Use a ruler to draw and measure lines to the nearest millimetre</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use rulers to measure and compare lengths; use simple scaling of quantities and equivalents of mixed units</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add and subtract length using mixed units</li> </ul>	4

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Unit 7 Number – Addition and subtraction, including Measurement (money) Statistics		
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson
Number – Addition and subtraction	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul> </li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>estimate the answer to a calculation and use inverse operations to check answers</li> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Add three-digit numbers using the expanded written method of column addition</li> <li>Estimate the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>Add three-digit numbers using the formal written method of column addition</li> <li>Estimate the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Add three-digit numbers using the formal written method of column addition</li> <li>Estimate the answer to a calculation</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add numbers mentally and use the inverse operation to check the answer</li> </ul>	4
Measurement (money)	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>add and subtract amounts of money to give change, using both £ and p in practical contexts</li> </ul>	<ul style="list-style-type: none"> <li>Subtract three-digit numbers using the formal written method of column subtraction (decomposition)</li> <li>Estimate the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>Subtract three-digit numbers using the formal written method of column subtraction (decomposition)</li> <li>Estimate the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Subtract numbers mentally and use the inverse operation to check the answer</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add and subtract amounts of money</li> <li>Solve problems involving money and reason mathematically</li> </ul>	4
Statistics	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>interpret and present data using bar charts, pictograms and tables</li> <li>solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and present data using tables and charts</li> </ul>	1
	<ul style="list-style-type: none"> <li>Interpret and present data in pictograms where one picture represents 2 units</li> </ul>	2
	<ul style="list-style-type: none"> <li>Interpret and present data in bar charts with intervals labelled in multiples of 2</li> </ul>	3
	<ul style="list-style-type: none"> <li>Use information presented in scaled pictograms, bar charts and tables to answer questions</li> </ul>	4

Unit 8 Number – Multiplication and division, including Number and place value Number – Fractions Measurement (perimeter)			
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson	
Number – Multiplication and division	<b>Week 1</b>		
<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>Count on and back in multiples of 50 and 100</li> <li>Find 100 more or less than a given number</li> </ul>	1	
	<ul style="list-style-type: none"> <li>Consolidate recall of the multiplication facts for the 2, 3, 4, 5, 8 and 10 multiplication tables, and related facts involving multiples of 10</li> </ul>	2	
	<ul style="list-style-type: none"> <li>Consolidate recall of the division facts for the 2, 3, 4, 5, 8 and 10 multiplication tables, and related facts involving multiples of 10</li> </ul>	3	
	<ul style="list-style-type: none"> <li>Solve problems and reason mathematically</li> </ul>	4	
Number – Number and place value	<b>Week 2</b>		
<ul style="list-style-type: none"> <li>count from 0 in multiples of 50 and 100; find 100 more or less than a given number</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order fractions with the same denominators</li> <li>Solve fraction problems and reason mathematically</li> </ul>	1	
Number – Fractions		<ul style="list-style-type: none"> <li>Subtract fractions within one whole</li> </ul>	2
<ul style="list-style-type: none"> <li>recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>subtract fractions with the same denominator within one whole</li> <li>compare and order unit fractions, and fractions with the same denominator</li> <li>solve problems that involve all of the above</li> </ul>		<ul style="list-style-type: none"> <li>Recognise equivalent fractions</li> </ul>	3
		<ul style="list-style-type: none"> <li>Recognise equivalent fractions using a fraction wall</li> </ul>	4
Measurement (perimeter)	<b>Week 3</b>		
<ul style="list-style-type: none"> <li>measure the perimeter of simple 2-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>Calculate the perimeter of rectangles in centimetres and in metres</li> </ul>	1	
	<ul style="list-style-type: none"> <li>Using a ruler, draw and calculate the perimeter of rectangles</li> </ul>	2	
	<ul style="list-style-type: none"> <li>Measure and calculate the perimeter of regular 2-D shapes to the nearest centimetre</li> </ul>	3	

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<b>Unit 9</b> <b>Number – Number and place value</b> <b>Number – Addition and subtraction</b> <b>Geometry – Properties of shape</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Number and place value</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>compare and order numbers up to 1000</li> <li>identify, represent and estimate numbers using different representations</li> <li>read and write numbers up to 1000 in numerals and in words</li> <li>solve number problems and practical problems involving these ideas</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> <li>Read and write numbers to 1000 in numerals and in words</li> </ul>	1
	<ul style="list-style-type: none"> <li>Compare and order numbers up to 1000</li> </ul>	2
	<ul style="list-style-type: none"> <li>Partition three-digit numbers in various ways</li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve number problems and reason mathematically</li> </ul>	4
<b>Number – Addition and subtraction</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul> </li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>estimate the answer to a calculation and use inverse operations to check answers</li> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Add and subtract numbers mentally</li> </ul>	1
	<ul style="list-style-type: none"> <li>Add three-digit numbers using the formal written method of column addition</li> <li>Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Subtract three-digit numbers using the formal written method of column subtraction (decomposition)</li> <li>Estimate and check the answer to a calculation</li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve problems and reason mathematically</li> </ul>	4
<b>Geometry – Properties of shape</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> <li>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</li> </ul>	<ul style="list-style-type: none"> <li>Know when a line is horizontal or vertical</li> </ul>	1
	<ul style="list-style-type: none"> <li>Know when a pair of lines are perpendicular or parallel</li> </ul>	2
	<ul style="list-style-type: none"> <li>Describe the properties of 2-D shapes</li> </ul>	3
	<ul style="list-style-type: none"> <li>Describe the properties of 3-D shapes</li> </ul>	4

<b>Unit 10</b> <b>Number – Multiplication and division</b> <b>Number – Fractions</b> <b>Measurement (volume and capacity)</b>		
<b>National Curriculum attainment targets</b> Pupils should be taught to:	<b>Lesson objectives</b> Pupils will be taught to:	<b>Lesson</b>
<b>Number – Multiplication and division</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li> <li>solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>Use partitioning to calculate <math>TO \times O</math></li> <li>Estimate and check the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>Use partitioning and the grid method to calculate <math>TO \times O</math></li> <li>Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Use the expanded written method to calculate <math>TO \times O</math></li> <li>Estimate and check the answer to a calculation</li> </ul>	3
	<ul style="list-style-type: none"> <li>Solve problems and reason mathematically</li> </ul>	4
<b>Number – Fractions</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</li> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>solve problems that involve all of the above</li> </ul>	<ul style="list-style-type: none"> <li>Find fractions of numbers</li> </ul>	1
	<ul style="list-style-type: none"> <li>Solve fraction problems and reason mathematically</li> </ul>	2
	<ul style="list-style-type: none"> <li>Recognise equivalent fractions</li> </ul>	3
	<ul style="list-style-type: none"> <li>Count up and down in tenths</li> <li>Find tenths by dividing by 10</li> </ul>	4
<b>Measurement (volume &amp; capacity)</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>measure, compare, add and subtract volume/capacity (//ml)</li> </ul>	<ul style="list-style-type: none"> <li>Know the equivalent of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{3}{4}</math> and <math>\frac{1}{10}</math> of 1 litre in millilitres</li> </ul>	1
	<ul style="list-style-type: none"> <li>Read scales marked in litres and in millilitres to the nearest 100 ml</li> </ul>	2
	<ul style="list-style-type: none"> <li>Measure and compare capacities; use simple scaling of quantities and equivalents of mixed units</li> </ul>	3

# The Sultan's School Mathematics Year 3 Medium-Term Plans

Unit 11 Number – Addition and subtraction, including Measurement (money) Measurement (time)		
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson
<b>Number – Addition and subtraction</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>a three-digit number and ones</li> <li>a three-digit number and tens</li> <li>a three-digit number and hundreds</li> </ul> </li> <li>add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>estimate the answer to a calculation and use inverse operations to check answers</li> <li>solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Add three-digit numbers using the formal written method of column addition</li> <li>Estimate and check the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>Add three-digit numbers using the formal written method of column addition</li> <li>Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Add and subtract amounts of money</li> </ul>	3
	<ul style="list-style-type: none"> <li>Add and subtract amounts of money</li> <li>Solve problems involving money and reason mathematically</li> </ul>	4
<b>Measurement (money)</b>	<b>Week 2</b>	
<ul style="list-style-type: none"> <li>add and subtract amounts of money to give change, using both £ and p in practical contexts</li> </ul>	<ul style="list-style-type: none"> <li>Subtract three-digit numbers using the formal written method of column subtraction (decomposition)</li> <li>Estimate and check the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>Subtract three-digit numbers using the formal written method of column subtraction (decomposition)</li> <li>Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>Add numbers mentally and use the inverse operation to check the answer</li> </ul>	3
	<ul style="list-style-type: none"> <li>Subtract numbers mentally and use the inverse operation to check the answer</li> </ul>	4
<b>Measurement (time)</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</li> </ul>	<ul style="list-style-type: none"> <li>Tell and write the time to the nearest minute from a 12-hour analogue clock and from a 12-hour digital clock</li> </ul>	1
	<ul style="list-style-type: none"> <li>Use the vocabulary of time and the relationships between seconds, minutes and hours to estimate, compare and record time</li> </ul>	2
	<ul style="list-style-type: none"> <li>Know the number of days in each month, year and leap year</li> </ul>	3

# The Sultan's School Mathematics Year 3 Medium-Term Plans

<ul style="list-style-type: none"> <li>• know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>• compare durations of events [for example to calculate the time taken by particular events or tasks]</li> </ul>	<ul style="list-style-type: none"> <li>• Calculate and compare the time taken to complete a task or an event</li> </ul>	4
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Unit 12 Number – Multiplication and division Statistics		
National Curriculum attainment targets Pupils should be taught to:	Lesson objectives Pupils will be taught to:	Lesson
<b>Number – Multiplication and division</b>	<b>Week 1</b>	
<ul style="list-style-type: none"> <li>• write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li> <li>• solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li> </ul>	<ul style="list-style-type: none"> <li>• Use the expanded written method to calculate <math>TO \times O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>• Use the formal written method to calculate <math>TO \times O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>• Use the formal written method to calculate <math>TO \times O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	3
	<ul style="list-style-type: none"> <li>• Solve problems and reason mathematically</li> </ul>	4
	<b>Week 2</b>	
	<ul style="list-style-type: none"> <li>• Use partitioning to calculate <math>TO \div O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	1
	<ul style="list-style-type: none"> <li>• Use the expanded written method to calculate <math>TO \div O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	2
	<ul style="list-style-type: none"> <li>• Use the formal written method to calculate <math>TO \div O</math></li> <li>• Estimate and check the answer to a calculation</li> </ul>	3
<ul style="list-style-type: none"> <li>• Solve problems and reason mathematically</li> </ul>	4	
<b>Statistics</b>	<b>Week 3</b>	
<ul style="list-style-type: none"> <li>• interpret and present data using bar charts, pictograms and tables</li> <li>• solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret and present data in pictograms where one picture represents 2 or 5 units</li> </ul>	1
	<ul style="list-style-type: none"> <li>• Interpret and present data in bar charts with intervals labelled in multiples of 5 or 10</li> </ul>	2
	<ul style="list-style-type: none"> <li>• Use information presented in scaled pictograms and tables to answer questions</li> </ul>	3
	<ul style="list-style-type: none"> <li>• Use information presented in scaled bar charts and tables to answer questions</li> </ul>	4