



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being 'willing to have a go'	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Place Value: Count						
EYFS: Number: Counting Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Recite numbers past 5. • Say one number for each item in order: 1, 2, 3, 4, 5. • May enjoy counting verbally as far as they can go • Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5. • Uses some number names and number language within play, and may show fascination with large numbers • Begin to recognise numerals 0 to 10 Autumn 3, Autumn 5 Spring 3, Spring 5 Summer 1 <ul style="list-style-type: none"> • Count beyond ten. • Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 • Increasingly confident at putting numerals in order 0 to 10 (ordinality) Summer 1, Summer 6	<ul style="list-style-type: none"> • To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. • Count numbers to 100 in numerals; count in multiples of 2s, 5s and 10s Autumn 1 Spring 1 Spring 3 Summer 4	<ul style="list-style-type: none"> • To count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. Autumn 1	<ul style="list-style-type: none"> • To count from 0 in multiples of 4, 8, 50 and 100. • To find 10 or 100 more or less than a given number. Autumn 1 Autumn 3	<ul style="list-style-type: none"> • To count in multiples of 6, 7, 9, 25 and 1000. To count backwards through zero to include negative numbers. Autumn 1 Autumn 4	<ul style="list-style-type: none"> • To count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. Count forwards and backwards with positive and negative whole numbers, including through zero. Autumn 1 Summer 4	



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement		Active Learning – Motivation		Creating & Thinking critically – Thinking		
Finding out & exploring Playing with what they know Being ‘willing to have a go’		Being involved and concentrating Keep on trying Enjoying achieving what they set out to do		Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)		
Place Value: Represent						
EYFS: Number: Cardinality Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Links numerals with amounts up to 5 and maybe beyond •Begin to recognise numerals 0 to 10 • Develop fast recognition of up to 3 objects, without having to count them individually (‘subitising’). • Know that the last number reached when counting a small set of objects tells you how many there are in total (‘cardinal principle’). • Show ‘finger numbers’ up to 5. <p>Autumn 3, Autumn 5 Spring 1</p> <ul style="list-style-type: none"> •Engages in subitising numbers to four and maybe five • Increasingly confident at putting numerals in order 0 to 10 (ordinality) • Matches the numeral with a group of items to show how many there are (up to 10) <p>Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 6</p>	<ul style="list-style-type: none"> •Identify and represent numbers using objects and pictorial representations. •Read and write numbers to 100 in numerals. •Read and write numbers from 1 to 20 in numeral and words. <p>Autumn 1 Spring 1 Spring 3 Summer 4</p>	<ul style="list-style-type: none"> •Read and write numbers to at least 100 in numerals and in words • Identify, represent and estimate numbers using different representations, including the number line <p>Autumn 1</p>	<ul style="list-style-type: none"> •To read and write numbers up to 1000 in numerals and in words. •Identify, represent and estimate numbers using different representations. <p>Autumn 1</p>	<ul style="list-style-type: none"> • Identify, represent and estimate numbers using different representations • Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value <p>Autumn 1</p>	<ul style="list-style-type: none"> • Read, write, (order and compare) numbers to at least 1000000 and determine the value of each digit • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals <p>Autumn 1</p>	<ul style="list-style-type: none"> • Read, write, (order and compare) numbers to at least 10000000 and determine the value of each digit. <p>Autumn 1</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being 'willing to have a go'	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Place Value: Use place value and compare						
EYFS: <u>Number: Comparison</u> Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals. •Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! <p style="margin: 0;">Autumn 3, Autumn 5, Spring 1</p> <p style="margin: 0;">Summer 2</p> <ul style="list-style-type: none"> •Count objects, actions and sounds. • Compare numbers •Uses number names and symbols when comparing numbers, showing interest in large numbers • Estimates of numbers of things, showing understanding of relative size <p style="margin: 0;">Autumn 1, Autumn 5, Spring 1, Spring 3, Spring 4, Spring 5 Summer 1, Summer6</p>	<ul style="list-style-type: none"> • Given a number, identify one more and one less <p style="margin: 0;">Autumn 1</p> <p style="margin: 0;">Spring 1</p> <p style="margin: 0;">Spring 3</p> <p style="margin: 0;">Summer 4</p> <p style="margin: 0;">Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.</p> <ul style="list-style-type: none"> • Experiment with their own symbols and marks as well as numerals. 	<ul style="list-style-type: none"> •Recognise the place value of each digit in a two-digit number (tens, ones) • Compare and order numbers from 0 up to 100; use = and <, > signs. <p style="margin: 0;">Autumn 1</p>	<ul style="list-style-type: none"> •Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) •Compare and order numbers to 1000. <p style="margin: 0;">Autumn 1</p>	<ul style="list-style-type: none"> •Find 1000 more or less than a given number •Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) •Order and compare numbers beyond 1000 <p style="margin: 0;">Autumn 1</p>	<ul style="list-style-type: none"> •Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. <p style="margin: 0;">Autumn 1</p>	<ul style="list-style-type: none"> •Read, write, order and compare numbers to at least 10 000 000 and determine the value of each digit. <p style="margin: 0;">Autumn 1</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being 'willing to have a go'	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Number and Place Value: Problems and rounding						
EYFS: Number: Composition 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Solve real world mathematical problems with numbers up to 5. • Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers • Beginning to use understanding of number to solve practical problems in play and meaningful activities • Beginning to recognise that each counting number is one more than the one before • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same Autumn 5 Spring 1 <ul style="list-style-type: none"> • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10. Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects <ul style="list-style-type: none"> • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three • In practical activities, adds one and subtracts one with numbers to 10 Autumn 3, Autumn 5 Spring 1, Spring 3, Spring 5 Summer 2, Summer 4, Summer 6	<ul style="list-style-type: none"> • Use place value and number facts to solve problems Autumn 1	<ul style="list-style-type: none"> • Solve number problems and practical problems involving these ideas Autumn 1	<ul style="list-style-type: none"> • Round any number to the nearest 10, 100 or 1000 • Solve number and practical problems that involve all of the above and with increasingly large numbers Autumn 1	<ul style="list-style-type: none"> • Interpret negative numbers in context • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10000 and 100000 • Solve number problems and practical problems that involve all of the above Autumn 1	<ul style="list-style-type: none"> • Round any whole number to a required degree of accuracy • Use negative numbers in context, and calculate intervals across zero • Solve number and practical problems that involve all of the above Autumn 1	



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being 'willing to have a go'		Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do		Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)		
Addition & Subtraction: Calculations						
EYFS Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) • Explores using a range of their own marks and signs to which they ascribe mathematical meanings •Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and + or – • Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects 	<ul style="list-style-type: none"> • add and subtract one-digit and two-digit numbers to 20, including zero. <p>Autumn 2 Spring 2</p>	<ul style="list-style-type: none"> •add and subtract numbers using concrete objects, pictorial representations, and mentally, including: → a two-digit number and ones →a two-digit number and tens → two two-digit numbers →adding three onedigit number <p>Autumn 2</p>	<ul style="list-style-type: none"> •add and subtract numbers mentally, including: → a three-digit number and ones → a three-digit number and tens → a three-digit number and hundreds • add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. <p>Autumn 2</p>	<ul style="list-style-type: none"> •add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. <p>Autumn 2</p>	<ul style="list-style-type: none"> •add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • add and subtract numbers mentally with increasingly large numbers. <p>Autumn 2</p>	<ul style="list-style-type: none"> •perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations. <p>Autumn 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being ‘willing to have a go’	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Addition & Subtraction: Problems						
EYFS Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Beginning to use understanding of number to solve practical problems in play and meaningful activities • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same •Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three 	<ul style="list-style-type: none"> •Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$ <p style="text-align: center;">Autumn 2 Spring 2</p>	<ul style="list-style-type: none"> •Solve problems with addition and subtraction: → Using concrete objects and pictorial representations, including those involving numbers, quantities and measures. → Applying their increasing knowledge of mental and written methods. <p style="text-align: center;">Autumn 2</p>	<ul style="list-style-type: none"> •Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. <p style="text-align: center;">Autumn 2</p>	<ul style="list-style-type: none"> •Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <p style="text-align: center;">Autumn 2</p>	<ul style="list-style-type: none"> •Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why • Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign <p style="text-align: center;">Autumn 2</p>	<ul style="list-style-type: none"> •Solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why <p style="text-align: center;">Autumn 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Multiplication & Division: Recall/Use						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot <p>Spring 2</p>	<ul style="list-style-type: none"> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables <p>Autumn 3 Spring 1</p>	<ul style="list-style-type: none"> Recall multiplication and division facts for multiplication tables up to 12×12 Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers Recognise and use factor pairs and commutativity in mental calculations <p>Autumn 4 Spring 1</p>	<ul style="list-style-type: none"> Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) <p>Autumn 3</p>	<ul style="list-style-type: none"> Identify common factors, common multiples and prime numbers use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy <p>Autumn 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Multiplication & Division: Calculations						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs <p>Spring 2</p>	<ul style="list-style-type: none"> write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for twodigit numbers times one-digit numbers, using mental and progressing to formal written methods <p>Autumn 3 Spring 1</p>	<ul style="list-style-type: none"> multiply two-digit and three-digit numbers by a onedigit number using formal written layout <p>Spring 1</p>	<ul style="list-style-type: none"> multiply numbers up to 4 digits by a one- or twodigit number using a formal written method, including long multiplication for two-digit numbers multiply and divide numbers mentally drawing upon known facts divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context multiply and divide whole numbers and those involving decimals by 10, 100 and 1000 <p>Autumn 3 Spring 1</p>	<ul style="list-style-type: none"> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context perform mental calculations, including with mixed operations and large numbers <p>Autumn 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Multiplication & Division: Problems						
EYFS 3 and 4 year olds Reception Early Learning Goals •To solve problems, including doubling, halving and sharing.	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> •solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. <p>Summer 1</p>	<ul style="list-style-type: none"> •solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts <p>Spring 2</p>	<ul style="list-style-type: none"> •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 <p>Spring 1</p>	<ul style="list-style-type: none"> •Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects <p>Spring 1</p>	<ul style="list-style-type: none"> •solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates <p>Autumn 3 Spring 1</p>	<ul style="list-style-type: none"> •Solve problems involving addition, subtraction, multiplication and division. <p>Autumn 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Multiplication & Division: Combined						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					<ul style="list-style-type: none"> •solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign Spring 1	<ul style="list-style-type: none"> •use their knowledge of the order of operations to carry out calculations involving the four operations Autumn 2



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions: Compare						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ <p>Summer 1</p>	<ul style="list-style-type: none"> recognise and show, using diagrams, equivalent fractions with small denominators compare and order unit fractions, and fractions with the same denominators <p>Spring 3</p>	<ul style="list-style-type: none"> recognise and show, using diagrams, families of common equivalent fractions <p>Spring 3</p>	<ul style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number <p>Autumn 4</p>	<ul style="list-style-type: none"> use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 <p>Autumn 3</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions: Recognise and Write						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> recognise, find and name a half as one of two equal parts of an object, shape or quantity recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. <p>Summer 2</p>	<ul style="list-style-type: none"> recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity <p>Summer 1</p>	<ul style="list-style-type: none"> 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 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators <p>Spring 3</p>	<ul style="list-style-type: none"> count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. <p>Spring 4 Summer 1</p>	<ul style="list-style-type: none"> identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$] <p>Autumn 4</p>	



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions: Calculations						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> write simple fractions for example, $\frac{1}{2}$ of 6 = 3 <p>Summer 1</p>	<ul style="list-style-type: none"> add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] <p>Summer 1</p>	add and subtract fractions with the same denominator Spring 3	add and subtract fractions with the same denominator and denominators that are multiples of the same number • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams Autumn 4 Spring 2	add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions • multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] <ul style="list-style-type: none"> divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$] <p>Autumn 3 Autumn 4</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions: Solve Problems						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			<ul style="list-style-type: none">•solve problems that involve all of the above Spring 3 Summer 1	<ul style="list-style-type: none">•solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number Spring 3		



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions: Recognise, write, compare						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				<ul style="list-style-type: none"> recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$ round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places <p>Spring 4 Summer 1</p>	<ul style="list-style-type: none"> read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places <p>Spring 3 Summer 3</p>	<ul style="list-style-type: none"> identify the value of each digit in numbers given to three decimal places <p>Spring 3</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Fractions, Decimals and Percentages						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				<ul style="list-style-type: none"> •Solve simple measure and money problems involving fractions and decimals to two decimal places <p>Spring 3 Spring 4 Summer 1</p>	<ul style="list-style-type: none"> •recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal • solve problems which require knowing percentage and decimal equivalents <p>of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25</p> <p>Spring 3</p>	<ul style="list-style-type: none"> • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] •recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <p>Spring 3 Spring 4</p>

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6



Ratio and Proportion						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						<ul style="list-style-type: none"> • solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • solve problems involving the calculation/use of percentages for comparison • solve problems involving similar shapes where the scale factor is known or can be found • solve problems involving unequal sharing and grouping using knowledge of fractions and multiples Spring 1



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Algebra						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> <i>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$</i> 	<ul style="list-style-type: none"> recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems 	<ul style="list-style-type: none"> solve problems, including missing number problems 			<ul style="list-style-type: none"> use simple formulae generate and describe linear number sequences express missing number problems algebraically <ul style="list-style-type: none"> find pairs of numbers that satisfy an equation with two unknowns enumerate possibilities of combinations of two variables <p>Spring 2</p>

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6





Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being ‘willing to have a go’	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Using Measures						
EYFS Measure Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Make comparisons between objects relating to size, length, weight and capacity. • Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then...’ • In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Recalls a sequence of events in everyday life and stories. • Compare length, weight and capacity. • Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Becomes familiar with measuring tools in everyday experiences and play • Is increasingly able to order and sequence events using everyday language related to time • Beginning to experience measuring time with timers and calendars 	<ul style="list-style-type: none"> • compare, describe and solve practical problems for: → lengths and heights → mass/weight → capacity and volume → time • measure and begin to record the following: → lengths and heights → mass/weight → capacity and volume → time (hours, minutes, seconds) <p>Spring 4 , 5 Summer 6</p>	<ul style="list-style-type: none"> • choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels • compare and order lengths, mass, volume/capacity and record the results using >, < and = <p>Spring 3 Spring 4</p>	<ul style="list-style-type: none"> • measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) <p>Spring 2 Spring 4</p>	<ul style="list-style-type: none"> • Convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures <p>Spring 2 Summer 3</p>	<ul style="list-style-type: none"> • convert between different units of metric measure • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling <p>Spring 4 Summer 5 Summer 6</p>	<ul style="list-style-type: none"> • solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate • use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 d.p. • convert between miles and kilometres <p>Autumn 5</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Money						
EYFS	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> recognise and know the value of different denominations of coins and notes <p>Summer 5</p>	<ul style="list-style-type: none"> recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change <p>Spring 1</p>	<ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts <p>Summer 2</p>	<ul style="list-style-type: none"> estimate, compare and calculate different measures, including money in pounds and pence <p>Summer 2</p>	<ul style="list-style-type: none"> use all four operations to solve problems involving measure [for example, money] <p>Summer 3</p>	



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Time						
EYFS	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] recognise and use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times <p>Summer 6</p>	<ul style="list-style-type: none"> compare and sequence intervals of time tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times know the number of minutes in an hour and the number of hours in a day <p>Summer 2</p>	<ul style="list-style-type: none"> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks 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 know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events [for example to calculate the time taken by particular events or tasks] <p>Summer 3</p>	<ul style="list-style-type: none"> Read, write and convert time between analogue and digital 12- and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days <p>Summer 3</p>	<ul style="list-style-type: none"> Solve problems involving converting between units of time <p>Summer 5</p>	<ul style="list-style-type: none"> use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa <p>Autumn 5</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Perimeter, Area, Volume						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
			<ul style="list-style-type: none"> •measure the perimeter of simple 2-D shapes. Spring 2	<ul style="list-style-type: none"> •measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares. Autumn 3 Spring 2	<ul style="list-style-type: none"> •measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes • estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water. Spring 4 Summer 6	<ul style="list-style-type: none"> •recognise that shapes with the same areas can have different perimeters and vice versa • recognise when it is possible to use formulae for area and volume of shapes • calculate the area of parallelograms and triangles • calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units. Spring 5

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6





Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being ‘willing to have a go’		Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do		Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)		
Geometry: 2D Shapes						
EYFS: Shape 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: ‘sides’, ‘corners’, ‘straight’, ‘flat’, ‘round’. • Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc. • Combine shapes to make new ones – an arch, a bigger triangle, etc. <p>Autumn 4, Autumn 6, Spring 6</p> <ul style="list-style-type: none"> • Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can. <p>Autumn 6, Spring 6, Summer 3</p>	<ul style="list-style-type: none"> •recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles] <p>Autumn 3</p>	<ul style="list-style-type: none"> •identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line • identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] • compare and sort common 2-D shapes and everyday objects <p>Autumn 3</p>	<ul style="list-style-type: none"> •draw 2-D shapes <p>Summer 4</p>	<ul style="list-style-type: none"> •compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes • identify lines of symmetry in 2-D shapes presented in different orientations <p>Summer 4</p>	<ul style="list-style-type: none"> •distinguish between regular and irregular polygons based on reasoning about equal sides and angles. • use the properties of rectangles to deduce related facts and find missing lengths and angles <p>Summer 1</p>	<ul style="list-style-type: none"> •draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius <p>Summer 1</p>

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6





Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement		Active Learning – Motivation		Creating & Thinking critically – Thinking		
Finding out & exploring Playing with what they know Being ‘willing to have a go’		Being involved and concentrating Keep on trying Enjoying achieving what they set out to do		Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)		
Geometry: 3D Shapes						
EYFS: Shape Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> •Chooses items based on their shape which are appropriate for the child’s purpose • Responds to both informal language and common shape names • Shows awareness of shape similarities and differences between objects • Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes • Attempts to create arches and enclosures when building, using trial and improvement to select blocks <p>Autumn 6, Spring 6, Summer 3</p> <ul style="list-style-type: none"> •Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes . • Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes • Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build. <p>Autumn 4, Spring 6, Summer 3, Summer 5</p>	<ul style="list-style-type: none"> •recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] <p>Autumn 3</p>	<ul style="list-style-type: none"> •recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] • compare and sort common 3-D shapes and everyday objects <p>Autumn 3</p>	<ul style="list-style-type: none"> •make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them <p>Summer 4</p>		<ul style="list-style-type: none"> •identify 3-D shapes, including cubes and other cuboids, from 2-D representations <p>Summer 1</p>	<ul style="list-style-type: none"> •recognise, describe and build simple 3-D shapes, including making nets <p>Summer 1</p>

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6





Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being ‘willing to have a go’	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)				
Geometry: Angles and Lines						
EYFS: Spatial Awareness Nursery: 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance				
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Spatial awareness <ul style="list-style-type: none"> • Compare quantities using language: ‘more than’, ‘fewer than’, • Understand position through words alone – for example, “The bag is under the table,” – with no pointing. • Describe a familiar route. • Discuss routes and locations, using words like ‘in front of’ and ‘behind’. • Responds to and uses language of position and direction • Predicts, moves and rotates objects to fit the space or create the shape they would like Autumn 2, Autumn 4 Spring 3 Summer 3, 5, Spring 6, <ul style="list-style-type: none"> • Select, rotate and manipulate shapes in order to develop spatial reasoning skills. • Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints • Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning) • May enjoy making simple maps of familiar and imaginative environments, with landmarks Spring 6 Summer 3, Summer 5			<ul style="list-style-type: none"> • recognise angles as a property of shape or a description of a turn • 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 • identify horizontal and vertical lines and pairs of perpendicular and parallel lines Summer 4	<ul style="list-style-type: none"> • Identify acute and obtuse angles and compare and order angles up to two right angles by size • identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry Summer 4	<ul style="list-style-type: none"> • now angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • draw given angles, and measure them in degrees • identify: <ul style="list-style-type: none"> → angles at a point and one whole turn (total 360°) → angles at a point on a straight line and ½ a turn (total 180°) → other multiples of 90 Summer 1	<ul style="list-style-type: none"> • find unknown angles in any triangles, quadrilaterals, and regular polygons • recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles Summer 1

Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6





Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Playing and Exploring – Engagement Finding out & exploring Playing with what they know Being 'willing to have a go'	Active Learning – Motivation Being involved and concentrating Keep on trying Enjoying achieving what they set out to do	Creating & Thinking critically – Thinking Having their own ideas (creative thinking) Making links (building theories) Working with ideas (critical thinking)			
Geometry: Position and Direction					
EYFS: Pattern 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance	KS2 Statutory Curriculum Guidance			
	Year 1	Year 2			
	Year 3	Year 4			
	Year 5	Year 6			
<p><u>PATTERN</u></p> <ul style="list-style-type: none"> •Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc. •Creates their own spatial patterns showing some organisation or regularity • Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC) <ul style="list-style-type: none"> • Extend and create ABAB patterns – stick, leaf, stick, leaf. • Notice and correct an error in a repeating pattern. • Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next <p>Autumn 2 Spring 6</p> <ul style="list-style-type: none"> • Continue, copy and create repeating patterns •Spots patterns in the environment, beginning to identify the pattern "rule" • Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat <p>Autumn 2 Spring 6 Summer 5</p>	<ul style="list-style-type: none"> •describe position, direction and movement, including whole, half, quarter and three-quarter turns <p style="text-align: center;">Summer 3</p>	<ul style="list-style-type: none"> •order and arrange combinations of mathematical objects in patterns and sequences <ul style="list-style-type: none"> • use mathematical vocabulary to describe position, direction and movement, including movement in a straight line & distinguishing between rotation as a turn & in terms of right angles for quarter, half & three-quarter turns (clockwise & anticlockwise) <p style="text-align: center;">Summer 4</p>	<ul style="list-style-type: none"> •describe positions on a 2-D grid as coordinates in the first quadrant <ul style="list-style-type: none"> • describe movements between positions as translations of a given unit to the left/right and up/down • plot specified points and draw sides to complete a given polygon <p style="text-align: center;">Summer 6</p>	<ul style="list-style-type: none"> •identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed <p style="text-align: center;">Summer 2</p>	<ul style="list-style-type: none"> •describe positions on the full coordinate grid (all four quadrants) <ul style="list-style-type: none"> • draw and translate simple shapes on the coordinate plane, and reflect them in the axes <p style="text-align: center;">Summer 2</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Statistics: Present and interpret data						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> interpret and construct simple pictograms, tally charts, block diagrams and simple tables <p>Summer 3</p>	<ul style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables <p>Summer 5</p>	<ul style="list-style-type: none"> interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs <p>Summer 5</p>	<ul style="list-style-type: none"> complete, read and interpret information in tables, including timetables <p>Spring 5</p>	<ul style="list-style-type: none"> interpret and construct pie charts and line graphs and use these to solve problems <p>Spring 5</p>



Four Swannes Primary School Mathematics curriculum overview and progression Map: EYFS-Y6

Statistics: Solve statistical problems						
EYFS 3 and 4 year olds Reception	KS1 Statutory Curriculum Guidance		KS2 Statutory Curriculum Guidance			
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"> ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity ask and answer questions about totalling and comparing categorical data <p>Summer 3</p>	<ul style="list-style-type: none"> 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 <p>Summer 5</p>	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs <p>Summer 5</p>	<ul style="list-style-type: none"> solve comparison, sum and difference problems using information presented in a line graph <p>Spring 5</p>	<ul style="list-style-type: none"> calculate and interpret the mean as an average <p>Spring 6</p>