Mathematics Medium Term Planning – Year 1

Year 1 Autumn 1						
WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**

Domains

Place Value (within 10)	Addition and subtraction (within 10)
- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. - Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. - Compare numbers using <, > and = signs - Read and write numbers from 1 to 20 in numerals and words.	- Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer) - Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs. - Represent and use number bonds and related subtraction facts within 20. - Add and subtract one-digit and two-digit numbers to 20, including zero.

Fluency

Counting	Fact recall	Mental calculation	Counting
- Count forwards in 1s, from 0 to 10. - Count backwards in 1s, from 10, to 0. - Count forwards in 1s, from a different starting number, within 10. - Count backwards in 1s, from a different starting number, within 10. - Count forwards, in multiples of two, from zero, to 24. - Count backwards, in multiples of two, from 24, to zero	- Recall 'one more' facts, within 10, including zero - Recall 'one less' facts within 10. - Recall number bonds and related subtraction facts within 5, including zero and use the commutative law. - Represent and use number bonds and related subtraction facts within 10, including zero and use the commutative law. - Recall addition doubles for all number to 5, up to a total of 10. - Recall doubles to 5, up to a total of 10, and the corresponding halves.	- Add near addition doubles, up to a total of 10, using doubles to 5. (partition, double and adjust by 1) - Add two, 1-digit numbers, within 10, without bridging the ten boundary. (subitise, reorder and put the larger number first, count on (augmentation), known fact)	- Count forwards in 1s, from 0 to 20 - Count backwards in 1s, from 20, to 0 - Count forwards in 1s, from a different starting number, within 20 - Count backwards in 1s, from a different starting number, within 20

Mathematics Medium Term Planning – Year 1

Year 1 Autumn 2					
WEEK 8	**WEEK 9**	**WEEK 10**	**WEEK 11**	**WEEK 12**	**WEEK 13**
Domains					
Addition and subtraction (within 10) • Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer) • Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs. • Represent and use number bonds and related subtraction facts within 20. • Add and subtract one-digit and two-digit numbers to 20, including zero.			**Shape** • Recognise and name 2-D and 3-D shapes, including 2-D shapes (for examples rectangles (including squares), circles and triangles); 3-D shapes (for example cuboids (including cubes) pyramids and spheres	**Consolidation**	
Fluency					
Counting • Count forwards, in multiples of two, from zero, to 24. • Count backwards, in multiples of two, from 24, to zero. • Count forwards, in multiples of 10, from zero, to 120. • Count backwards, in multiples of 10, from 120, to zero.	**Fact recall** • Recall 'one more' facts, within 20, including zero. • Recall 'one less' facts, within 20. • Recall number bonds and related subtraction facts within 5, including zero and use the commutative law. • Represent and use number bonds and related subtraction facts within 10, including zero and use the commutative law. • Recall addition doubles for all number to 5, up to a total of 10. • Recall doubles to 5, up to a total of 10, and the corresponding halves.		**Mental calculation** • Subtract two, 1-digit numbers, within 10. (subitise, count back (taking away), count on (finding the difference), known fact) • Subtract a 1-digit number from ten. (subitise, count back (taking away), count on (finding the difference), known fact)	**Consolidation**	

Mathematics Medium Term Planning – Year 2

Year 2 Autumn 1						
WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**

Domains

Place Value	Addition and subtraction
• Read and write numbers to at least 100 in numerals and words • Identify, represent and estimate numbers using different representations including the number line • Count in steps of 2, 3 and 5 from 0 and in 10's from any number, forward and backward • Recognise the place value of each digit in a 2-digit number (tens, ones) • Compare and order numbers from 0 up to 100; use $<$, $>$ and = signs • Use place value and number facts to solve problems	• Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. • 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 calculations • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a 2-digit number and 1s, a 2-digit number and 10's, two 2-digit numbers and adding three 1-digit numbers • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Fluency

Counting	Fact recall	Mental calculation	Counting
• Count forwards and backwards in 1s, from 0/100 or any other number, within 100 and beyond 100, crossing the 100 boundary. • Count forwards and backwards, in multiples of 3, from zero, or any other multiple, up to 12 x 3.	• Recall '10 more' facts, within 100. • Recall '10 less' facts, within 100. • Derive and recall what must be added to any two-digit number to make the next multiple of 10, within 100. (56+? = 60) • Derive and recall adding a one-digit number and a multiple of 10, within 100.	• Derive complements (bonds) to 100, using knowledge of bonds for 10 and bonds for 100. (23+77=100, using knowledge of 20+70 (2+7) and 3+7) • Add three, one-digit numbers, including bridging the ten boundary.	• Count forwards and backwards in 1s, from 0/100 or any other number, within 100 and beyond 100, crossing the 100 boundary. • • Count forwards and backwards, in multiples of 3, from zero, or any other multiple, up to 12 x 3.

Mathematics Medium Term Planning – Year 2

Year 2 Autumn 2					
WEEK 8	**WEEK 9**	**WEEK 10**	**WEEK 11**	**WEEK 12**	**WEEK 13**
Domains					
Addition and subtraction • Represent and use number bonds and related subtraction facts within 20 (Y1) • Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100. • 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 calculations • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a 2-digit number and 1s, a 2-digit number and 10's, two 2-digit numbers and adding three 1-digit numbers • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. • Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems		**Shape** • Identify and describe the properties of 2-D shapes, including the number of sides, and line of symmetry in a vertical line • Compare and sort common 2-D and 3-D shapes and everyday objects • Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces • Identify 2-D shapes on the surface of 3-D shapes			
Fluency					
Counting • Count forwards and backwards in 1s, from 0/100 or any other number, within 100 and beyond 100, crossing the 100 boundary. • Count forwards and backwards, in multiples of 3, from zero, or any other multiple, up to 12 x 3. .	**Fact recall** • Recall '10 more' facts, within 100. • Recall '10 less' facts, within 100. • Derive and recall what must be added to any two-digit number to make the next multiple of 10, within 100. (56+? = 60) • Derive and recall adding a one-digit number and a multiple of 10, within 100.		**Mental calculation** • Derive complements (bonds) to 100, using knowledge of bonds for 10 and bonds for 100. (23+77=100, using knowledge of 20+70 (2+7) and 3+7) • • Add three, one-digit numbers, including bridging the ten boundary.		**Consolidation**

Mathematics Medium Term Planning – Year 3

Year 3 Autumn 1

WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7

Domains

Place Value	Addition and subtraction
• Count from 0 in multiples of 4, 6, 8, 50 and 100; find 10 or 100 more or less than a given number. • Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) using standard and non-standard partitioning. • Compare and order numbers up to 1000. • Identify, represent and estimate numbers using different representations. • Read and write numbers up to 1000 in numerals and in words. • Solve number problems and practical problems involving these ideas.	• 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. • Estimate the answer to a calculation and use inverse operations to check answers • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Fluency

Counting	Fact recall	Mental calculation	Counting
• Count forwards and backwards, in multiples of 50, from zero or any other multiple. • Count forwards and backwards, in multiples of 100, from zero or any other multiple. • Count forwards and backwards, in multiples of 3, from zero, or any other multiple, up to 12x3.	• Recall '1, 10 and 100 more and less' facts, within 1000. • Derive and recall addition facts, within 100, using bonds to 10 to support. (27+3, 36+14) • Derive and recall sums of multiples of 10. (40+30, 50+80 (bridge)) • Derive and recall addition doubles for all numbers to 50, up to a total of 100. (42+42, 46+46 (bridging))	• Add a near multiple of 10. (56 +29) • Subtract a near multiple of 10. (56 -29) • Add a multiple of 10 and a three-digit number. (50+342 or 342+50, 70+342 or 342+70 (bridging)) • Subtract a multiple of ten from a three-digit number. (564-30, 742-60 (bridging))	• Count forwards and backwards, in multiples of 4, from zero, or any other multiple, up to 12x4.

Mathematics Medium Term Planning – Year 3

Year 3 Autumn 2					
WEEK 8	**WEEK 9**	**WEEK 10**	**WEEK 11**	**WEEK 12**	**WEEK 13**
Domains					
Addition and subtraction • 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. • Estimate the answer to a calculation and use inverse operations to check answers • Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	**Multiplication and division** • Recall and use multiplication and division facts for the 2, 3, 4, 6, 8 and 10 multiplication tables. • § 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. • 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.				**Consolidation**
Fluency					
Counting • Count forwards and backwards, in multiples of 8, from zero, or any other multiple, up to 12x8.	**Fact recall** • Derive and recall addition doubles for multiples of 10, up to a total of 200. • Derive and recall addition doubles for multiples of 100, up to a total of 1000. • Derive and recall differences of multiples of 10. (80- 40, 120-90 (bridge)) • Derive and recall what must be added to any three-digit number to make the next multiple of 100. (521+? =600)		**Mental calculation** • Add three-digit multiples of 10. (620+280) • Subtract three-digit multiples of 10. (620-380) • Add/subtract a three-digit number and a one-digit number, without bridging the ten boundary. • Add/subtract a three-digit number and a one-digit number, bridging the boundary. • Add/subtract a three-digit number and a two-digit number, without bridging the ten boundary. • Add/subtract a three-digit number and a two-digit number, bridging the ten boundary. • Add a three-digit number and a two-digit number, bridging the ten boundary and the 100 boundary.		**Consolidation**

Mathematics Medium Term Planning – Year 4

Year 4 Autumn 1						
WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**

Domains

Place Value	Addition and subtraction
- Count in multiples of 6, 7, 9, 25 and 1000. - Find 1000 more or less than a given number. - Count backwards through zero to include negative numbers. - Recognise the place value of each digit in a four-digit number(thousands, hundreds, tens, and ones) and use standard and non- standard partitioning. - Order and compare numbers beyond 1000. - Identify, represent and estimate numbers using different representations. - 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 positive numbers. - Read Roam numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	- Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. - Estimate and use inverse operations to check answers to a calculation. - Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Fluency

Counting	Fact recall	Mental calculation	Counting
- Count backwards through zero to include negative numbers. - Count forwards and backwards, in multiples 25, from zero or any other multiple. - Count forwards and backwards, in multiples 1000, from zero or any other multiple. - Count forwards and backwards, in multiples of 7, from zero, or any other multiple, up to 12x7.	- Recall '1, 10 , 100 and 1000 more/less' facts, with numbers up to 4-digits. - Derive and recall addition facts, within 1000, using bonds to 10 to support. (327+23, 452+154) - Derive and recall sums and differences of multiples of 10, 100 or 1000. (650+230) (960- 390) - Derive and recall addition doubles of all numbers from 1 to 100 , up to a total of 200. (63+63, 67+67 (bridging)) - Derive and recall addition doubles for multiples of 10, within 1000. - Derive and recall addition doubles for multiples of 100, up to a total of 2000. - Derive and recall addition doubles for multiples of 1000. - Derive and recall what must be added to any four-digit number to make the next multiple of 1000. (4087+?=5000)	- Add near addition doubles of multiples of 10, with a difference of 20 (partition, double and adjust) - Add/subtract a near multiple of 100 . (140+150)/(390-370) - Add/subtract a near multiple of 10 or 100 to any two-digit or three-digit number (235+198)/(535-198) - Add/subtract a pair of two-digit numbers or three-digit multiples of 10 (38+86, 350+360)/ (86+-39, 390-360)	- Count forwards and backwards, in multiples 25, from zero or any other multiple. - Count forwards and backwards, in multiples 1000, from zero or any other multiple. - Count forwards and backwards, in multiples of 7, from zero, or any other multiple, up to 12x7

Mathematics Medium Term Planning – Year 4

Year 4 Autumn 2					
WEEK 8	**WEEK 9**	**WEEK 10**	**WEEK 11**	**WEEK 12**	**WEEK 13**
Domains					
Area	**Multiplication and division**			**Consolidation**	
• Find the area of rectilinear shapes by counting squares.	• Recall multiplication and division facts for multiplication tables up to 12 x 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.				
Fluency					
Counting	**Fact recall**		**Mental calculation**		**Consolidation**
• Count forwards and backwards, in multiples 25, from zero or any other multiple. • Count forwards and backwards, in multiples 1000, from zero or any other multiple. • Count forwards and backwards, in multiples of 7, from zero, or any other multiple, up to 12x7	• Derive and recall doubles of all numbers from 1 to 100 and the corresponding halves. • Derive and recall doubles of any multiple of 10 and 100 and the corresponding halves. (double 340, halve 680) • Halve any even number to 200. (halve 186) • Multiply by 1 and 0. • Divide by 1.		• Multiply numbers, up to 20, by a one-digit number • Multiply a multiple of 10, up to 100, by a one-digit number (90x6) • Multiple a one-digit/two digit number by 100 • Multiply a three-digit by 10 and 100 • Divide numbers by 10 and 100 (whole number answers) • Multiply two-digit numbers by 4, using doubles. (26x4=double 26, double 52) • Divide two-digit numbers by 4, using doubles. (96÷4=halve 96, halve 48) • Multiply two-digit numbers by 5, using x10 and halve. (32x5 = (32x10)÷2 or (32÷2)x10) • Multiply two-digit numbers by 20, using x10 and double(32x20 = (32x10)x2 or (32x2) x 10)		

Mathematics Medium Term Planning – Year 5

Year 5 Autumn 1						
WEEK 1	**WEEK 2**	**WEEK 3**	**WEEK 4**	**WEEK 5**	**WEEK 6**	**WEEK 7**
Domains						

Place Value	**Addition and subtraction**	**Multiplication and division**
• Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. . • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000. • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000. • Solve number problems and practical problems that involve all of the above. • Read Roman numerals to 1000 (M) and recognise years in Roman numerals	• 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. • Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	• 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. • Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes • recognise and use square and cube numbers and the notation for squared and cubed.

Fluency			
Counting	**Fact recall**	**Mental calculation**	**Counting**
• Count forwards and backwards with positive and negative whole numbers, including through zero. • Count forwards or backwards in steps of powers of 10 (10s, 100s, 1,000s, 10,000s, 100,000s) for any given number up to 1000 000.	• Recall multiples of 12, up to 12x12, in any order, including missing numbers and related division facts. • Recall multiples of all times tables up to 12x12, in any order, including missing numbers and related division facts. • Derive and recall addition doubles for multiples of 10, 100 and 1000. (30+30, 400+400, 2000+2000)	• Add a near multiple of 10, 100 or 1000 to any number. (3235+1198) • Subtract a near multiple of 10, 100 or 1000 from any number. (3235- 1198)	• Count forwards and backwards with positive and negative whole numbers, including through zero. • Count forwards or backwards in steps of powers of 10 (10s, 100s, 1,000s, 10,000s, 100,000s) for any given number up to 1000 000.

Year 5 Autumn 2					
WEEK 8	**WEEK 9**	**WEEK 10**	**WEEK 11**	**WEEK 12**	**WEEK 13**
Domains					
Multiplication and division • Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 • Multiply and divide numbers mentally drawing upon known facts	**Fractions A** • 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 • Compare and order fractions whose denominators are all multiples of the same number • Add and subtract fractions with the same denominator and denominators that are multiples of the same number				**Consolidation**
Fluency					
Counting • Count forwards and backwards with positive and negative whole numbers, including through zero. • Count forwards or backwards in steps of powers of 10 (10s, 100s, 1,000s, 10,000s, 100,000s) for any given number up to 1000 000.	**Fact recall** • Recall multiples of all times tables up to 12x12, in any order, including missing numbers and related division facts. • Recall prime numbers up to 19. • Recall squares to 12 x 12. • Recall cube numbers. • Derive and recall factor pairs to 100 (56 (1x56, 2x28, 4x14, 7x8))		**Mental calculation** • Count forwards and backwards with positive and negative whole numbers, including through zero. • Count forwards or backwards in steps of powers of 10 (10s, 100s, 1,000s, 10,000s, 100,000s) for any given number up to 1000 000.		**Consolidation**