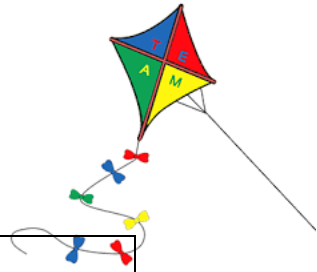
Twyford St Mary's Curriculum Intent



Curriculum Intent for Mathematics
Curriculum A & B

Progression of Skills Key Stage 1

EYFS

Autumn	Spring	Summer
Number To recognise numbers 1-3 To begin to subitise to 3 To find one more of numbers to 3 To find one less of numbers to 3 To explore the composition of 2 and 3 To recognise numbers 1-5 ***Numerical Patterns*** To say which group has more To say which group has less To compare quantities to 3 To count to 5 ***Space, Shape & Measure*** To match objects To sort objects To compare capacity, length, height, size. To finish a repeating pattern of 2 objects or colours *Half Term* ***Number*** To begin to subitise to 5 To find one more of numbers to 5 To find one less of numbers to 5 To explore the composition of 4 and 5 To recognise and name circle, triangle, square, rectangle. To explore and name 3D shapes. ***Numerical Patterns*** To compare quantities to 5 To compare equal and unequal groups	***Number*** To recognise numbers 0-8 To subitise to 5 To find one more of numbers to 8 To find one less of numbers to 8 To explore the composition of 6, 7 and 8 To match the number to quantity ***Numerical Patterns*** To count to 15 To count objects to 10 To compare quantities to 8 To begin to understand the different between odd and even numbers up to 8 To combine two groups of objects ***Space, Shape & Measure*** To order objects by height and length To order the days of the week To measure height using cubes *Half Term* ***Number*** To recognise numbers 0-10 To explore the composition of 9 and 10 To practise number bonds to 10 To know addition facts to make 5 To find one more of numbers to 10 To find one less of numbers to 10 To estimate a number of objects ***Numerical Patterns*** To count to 20	***Number*** To recognise numbers to 20 To revise number bonds to 5 To explore how to make numbers above ten using tens and ones To match the number to quantity ***Numerical Patterns*** To count to 25 To add numbers To subtract numbers To find the missing number To order numbers to 20 To order numbers e.g. 13, 15, 19 To find the missing number in an addition and subtraction sentence problems ***Space, Shape & Measure*** To measure capacity To measure time To recognise the time to o'clock *Half Term* ***Number*** To solve simple number problems To recap the composition of each number to 10 To know addition and subtraction facts to 10 To know doubling facts ***Numerical Patterns***

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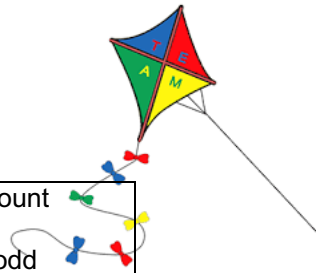

To count to 10 ***Space, Shape & Measure*** To recognise and name circle, triangle, square, rectangle. To explore and name 3D shapes	To compare quantities to 10 To explore odd and even numbers To order numbers to 10 To count back from 10 To combine two groups of objects To take away objects and count how many are left To find the missing number ***Space, Shape & Measure*** To recognise coins 1p, 2p, 5p 10p, 20p To finish a more complex repeating pattern	To count to 30 and beginning to count higher (100). To know that 1, 3, 5, 7 and 9 are odd To know that 2, 4, 6, 8, 10 are even To double numbers up to 10 To find half of numbers up to 10 To share quantities equally To combine groups of 2s, 5s and 10s ***Space, Shape & Measure*** To add money To make patterns using shapes To name and describe 2D and 3D shapes

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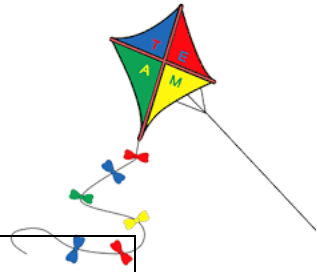

YEAR 1		
Autumn	**Spring**	**Summer**
Place Value -Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number -Count and label sets of items and record the number in numerals -Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least -Read and write numbers from 1 to 20 in numerals and words ***Addition and Subtraction*** -*G*iven a number, identify one more and one less and begin to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs ***Measures*** -Describe and solve practical problems for: Lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass / weight Solve practical problems involving mass or weight using the language of heavy/light; heavier than/ lighter than. Pictorial recording Measure and begin to record mass and weight using non-standard units to compare the mass of two or three objects. Time (quicker, slower, earlier, later) Sequence events in chronological order using	***Addition and Subtraction*** Derive the partitions for 8,9 and 10 Use partitions of 5,6,7,8,9 and 10 to derive associated subtraction facts. Use partitioning and part-whole diagrams to read, write and interpret mathematical statements to 20 ~ focus on teen numbers and the language of 'ten and some more' (teen numbers) Use tens frames to develop understanding and the recall of the set of calculations showing 'ten plus some ones' Solve one-step problems that involve addition, using concrete objects and pictorial representations and the language of 'ten and some more' (teen numbers) ***Measures (Time & Mass)*** Tell the time to the hour. Begin to draw the hands on a clock-face. Know how many minutes there are in an hour Solve practical problems involving mass or weight using the language of heavy/light; heavier than/ lighter than. Pictorial recording *Fractions* ***Number, place value*** Count to at least 100 forwards, beginning with 0 or 1, or from any given number -Count in 2s to 20, modelling on a number-line Count in 10s to 100, modelling on a number-line Read numbers from 0 to 100. Write numbers from 1 to 20 Order numbers up to 100 starting from any number crossing the tens boundaries. Count back from any given number up to 50. Given a number, identify one more and one less	***Multiplication & Division*** Count reliably in 2s and 10s. Introduce counting in 5s. Link counting in 5s to grouping objects and to the pattern of numbers on a number-line. Solve problems involving groups of 5 objects using pictorial recording. Rehearse together the language of 'How many groups of 5 are there?' ~ 'There are 3 groups of 5' Solve one-step problems involving multiplication, focussing on groups of 5, using concrete objects, pictorial representations, and arrays with the support of the teacher. Solve one-step problems involving multiplication and division, focussing on groups of 2 and 10, using concrete objects, pictorial representations, and arrays with the support of the teacher. Recognise that 5 is half of 10 and show using concrete resources and diagrams. Recognise , find and name a half as one of two equal parts of a quantity (division by 2) ***Geometry*** -Recognise and name 3-D shapes including cuboids, pyramids, and spheres -Describe position, directions and movements, including half, quarter and three-quarter turns. ***Number, place value (Addition & Subtraction)***

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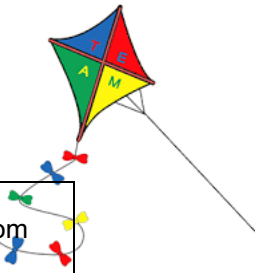

language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening Recognise and use language relating to dates, including days of the week -Recognise and know the value of different denominations of coins e.g.1p and 10p coins. Include £10 notes for counting in 10s. -Sort coins into different types. Note what is the same and what is different. -Put pennies on a number-line and step-count - Compare and describe lengths and heights using non-standard units. -Solve problems in a practical context ***Fractions*** -Recognise, find and name a half as one of two equal parts of an object, shape ***Geometry*** -Describe position using mathematical vocabulary and simple grid references ***Number Place Value*** -Count in 2s to 20, modelling on a number-line - Count in 10s to 100, modelling on a number-line -Read numbers from 20 to 50 -Order numbers up to 50 starting from any number between 1 and 10. -Count back from any given number between 11-20 to zero -Given a number, identify one more and one less to 20 ***Addition & Subtraction*** -Partition 5 into two parts in different ways using concrete objects (e.g.2-coloured counters or 2-coloured multi-link bars). Record pictorially.	Add 10 to a number using concrete resources and a number-line ***Addition & Subtraction*** Revise and use partitions of all numbers up to 10, recalling and deriving associated subtraction facts to solve problems. Use partitioning and part-whole diagrams to read, write and interpret mathematical statements to 10 when solving problems. Develop children's fluency with using known or derived number facts, moving on from counting in ones (on fingers). Solve one-step problems that involve addition and subtraction to 20, using concrete objects and pictorial representations. Deepen understanding of the relationship between the concrete and ordinal for numbers up to 20. E.g. '11 is ten and one' (using concrete objects) and also '11 is one more than 10' (position on a number-line) ***Addition & Subtraction with measures (money)*** -Recognise and know the value of different denominations of coins and notes. - Count to at least 100 forwards, beginning with 0 or 1, or from any given number. Make links with counting in pennies Count in 2ps to 20p, modelling on a number-line -Count in 10ps to 100p, modelling on a number-line. Develop understanding that 100p = £1 Read numbers from 0 to 100. Write numbers from 1 to 20 -Order amounts of any money up to 100p using 1p and 10p coins. Link to a number-line marked with pence. -Count back in pennies from any amount up to 50p -Given a total, identify one penny more and one penny less. Use coins to model the amount and record on a number-line to explore patterns	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Count, read and write numbers to 100 in numerals. Given a number, identify one more and one less 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. Read and write numbers from 1 to 20 in numerals and words. 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. Solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems such as 7 = Δ - 9 ***Fractions (Multiplication & Division)*** Count in multiples of 2s, 5s and 10s. 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. 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

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-Use a context to problem-solve with number bonds to 5 -Partition 5,6 and 7 into two parts in different ways using concrete objects (e.g.2-coloured counters or 2-coloured multi-link bars). Record pictorially. Note double 3 is 6. - Use a context to problem-solve with number bonds to 5,6 and 7 -Record partitions using part-whole diagrams alongside number sentences. -Use partitions of 5,6 and7to derive associated subtraction facts. - Use partitioning and part-whole diagrams to read, write and interpret mathematical statements to 10. -Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations ***Place Value*** -Count in 10s to 50. -Given a number, identify one more and one less by counting out objects and augmenting or reducing the group by one -Use the language of one more than 6 is 7; one less that 7 is 6 -Use a context to solve problems involving one more and one less - Introduce the number-line with practical objects to develop understanding of how numbers relate to one another and to support ordering. Make collections of 10, 20 and 30 objects -Order numbers to 30 starting from any number between 1 and 10 ***Multiplication & Division*** -Count reliably in 2s. - Link counting in 2s to grouping objects and to the pattern of numbers on a number-line. - Solve problems involving pairs of objects, groups of 2 using pictorial recording.	-Add and subtract 10p to and from an amount of money using 10p and 1p coins and a number-line ***Addition & Subtraction with measures (Mass)*** Solve practical problems involving mass or weight using comparative language such as heavy/light; heavier than/ lighter than. Pictorial recording. - Measure and begin to record mass and weight using non-standard units to compare the mass of two or three objects. -Combine the mass of two objects (measured using non-standard units such as 'cubes') to find the total and the difference between the number of cubes. -Read, write and interpret mathematical statements involving addition (+) , subtraction (-) and equals (=) signs. -Solve simple one-step word problems in the context of mass that involve addition and subtraction to 20, using concrete objects and pictorial representations ***Geometry*** Recognise and name common 2-D shapes, including squares, circles, rectangles, and triangles	***Measures (Volume, Capacity, Time)*** -Compare, describe, and solve practical problems for capacity / volume (full/empty, more than/less than, half , quarter) Measure and begin to record capacity and volume. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times Know how many minutes there are in an hour and half an hour ***Geometry*** Recognise and name 3-D shapes, including cuboids, pyramids and spheres. Describe position, directions and movements including ½ , ¼ , ¾ turns

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-Rehearse together the language of 'How many groups of 2 are there?' ~ 'There are 3 groups of 2' - Share objects equally by counting how many in each group - Recognise and name a half as one of two equal parts of a quantity		

Year 1 Ready to progress criteria

NPV	Count within 100, forwards and backwards, starting with any number Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =
NF	Develop fluency in addition and subtraction facts within 20 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers
AS	Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts Add and subtract one-digit and two-digit numbers to 20 Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9.
MD F	Share objects equally by counting how many in each group Recognise and name a half as one of two equal parts of a quantity Recognise and name a half as one of two equal parts of a shape
M	Recognise and know the value of different denominations of coins and notes Sequence events in chronological order using language such as: 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
G	Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations

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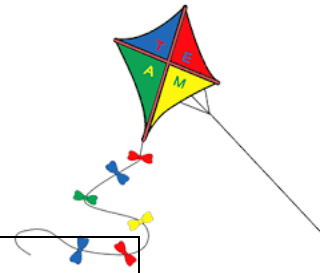

YEAR 2		
Autumn	**Spring**	**Summer**
Place Value Count in steps of 2 from 0 and in tens from any number, forward or backward. Count in steps of 5 Recognise the place value of each digit in a 2-digit number Count objects up to 100 by making tens Partition numbers to 100 Partition numbers flexibly Count by 10s on a numberline Identify, represent and estimate numbers using different representations, including the number line. Compare and order numbers from 0 to 100; use < > and = signs. Read and write numbers to at least 100 in numerals and in words. Find 10 more or less than a given number Use place value and number facts to solve problems **Mental Maths (half term)** Count on and back from 0-100, find 1 more/less than any number to 100. ***Addition and Subtraction*** Solve problems with addition and subtraction. Using concrete objects and pictorial representations, including those involving numbers. Apply their increasing knowledge of mental and written methods. Recall and use addition and subtraction facts to 20. Add and subtract numbers using concrete objects, pictorial representations and mentally, including: A two-digit number and ones A two-digit number and tens	***Number & PV with Addition and Subtraction*** Add and subtract numbers using concrete objects, pictorial representations (number-lines) and mentally, including a two-digit number and ones and a two-digit number and tens. Add three one-digit numbers Use partitions of 5,6,7,8,9 to bridge through 10 when adding and subtracting. Record on number-lines and as a number sentence. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot ***Measures (Time, Mass)*** 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 how many minutes there are in an hour, half an hour and quarter of an hour Know the number of hours in a day Choose and use appropriate standard units to estimate and measure mass (kg/g) to the nearest appropriate unit using scales ***Fractions, Geometry*** Identify and describe the properties of 2-D shapes, including the number of sides and 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. Identify and describe the properties of 3-D shapes, including the number of faces, edges and vertices.	***Multiplication & Division*** Count reliably in 2s, 5s and 10s from zero, forward or backward. Show on a number-line. Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odds and evens. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods. Use the multiplication (x) and equals (=) signs to show solutions alongside other representations e.g. arrays and number-lines. Rehearse together and use the language of 'How many groups of 2 (5, 10) are there?' ~ 'There are 3 groups of 2 (5,10)' Share objects equally by counting how many in each group and record pictorially (arrays). Recognise the link with multiplication facts represented as arrays. ***Number and Place Value*** Recognise the place value of each digit in a 2-digit number (10s, ones) Identify, represent and estimate numbers using different representations including the number line and in the context of number, quantity and measure. Compare and order numbers form zero up to 100, using < , > and = signs Read and write numbers to at least 100 in numerals and in words

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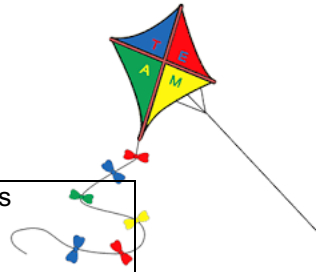

Multiplication and Division Recall and use multiplication and division facts for the 2 and 10 multiplication tables, including recognizing odd and even numbers. Show that multiplication of two numbers can be done in any order (commutative). Solve problems involving multiplication and division, using materials, arrays, repeated addition and mental methods. Count reliably in 2s, 5s and 10s from zero. Introduce counting in 3s from zero. (multiples) Link counting in 2s, 5s ,10s to grouping objects and to the pattern of numbers on a number-line. Solve problems involving groups of 2, 5 and 10 objects using pictorial recording. Rehearse together the language of 'How many groups of 2 (5, 10) are there?' ~ 'There are 3 groups of 2 (5,10)' Construct arrays with concrete objects. Notice that 2 x 5 = 5 x 2 etc. (Commutativity). Record pictorially. Develop the concept of sharing and grouping into different sized groups (not just 2s) ***Fractions*** Recognise, find, name and write fractions 1/3 and ¼ ***Addition and subtraction*** Given a number, identify one or ten more and one or ten less bridging through tens and through one hundred Use the language of two more than 19 is 21; two less than 31 is 29 Count in steps of 10 from any numbers, forward and backward Use a context to solve problems involving ten more and ten less	Order and arrange combinations of mathematical objects in patterns Recognise, find, name and write fractions as equal parts of a shape (link to symmetry and folding). Focus on ½, ¼ , 2/4 = ½. Introduce 1/3 and ¾ of a shape ***Multiplication & Division*** Count reliably in 2s, 5s and 10s from zero, forward or backward. Show on a number-line. Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odds and evens. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods. Use the multiplication (x) and equals (=) signs to show solutions alongside other representations e.g. arrays and number-lines. Rehearse together and use the language of 'How many groups of 2 (5, 10) are there?' ~ 'There are 3 groups of 2 (5,10)' Share objects equally by counting how many in each group and record pictorially (arrays). Recognise the link with multiplication facts represented as arrays. Develop the concept of sharing and grouping into different sized groups (not just 2s, 5s and 10s ***Number and PV with Subtraction and Addition*** Count in 3s from zero to 30, modelling on a number-line Read and write numbers in numerals and in words to at least 100. Derive and use related facts up to 100. E.g. 3 + 7 and 30 + 70 Order numbers up to 100 starting from any number crossing the tens boundaries.	Use place value and number facts ***Addition and subtraction*** Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations and mentally including: a 2-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three 1-digit numbers. Show that addition of two numbers can be done in any order 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 missing number problems ***Fractions*** Recognise, find, name, and write fractions of a length, shape, set of objects or quantity ($\mathbf{13}$, $\mathbf{14}$, $\mathbf{24}$, $\mathbf{34}$) Write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of 2/4 ***Multiplication & Division*** Solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts Recall and use multiplication and division facts for the 2,5,and 10 multiplication tables, including recognising odd and even numbers

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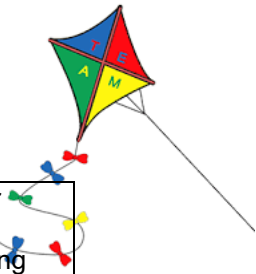

Deepen understanding of the relationship between the concrete and ordinal for numbers up to 100. For example, 43 is four tens and three ones (using concrete objects) and also 43 is three more than 40 (position on a number line) Partition numbers up to 10 into two parts in different ways using concrete objects such as 2-coloured counters or 2-coloured multi-link bars. Record pictorially Use a context to problem solve with number bonds to 20 Solve problems with addition and subtraction, applying their increasing knowledge of mental recall of number bonds to 20. Add and subtract numbers using concrete objects, pictorial representations and mentally, including a 2-digit number and ones ; a 2-digit number and tens Add thee one-digit numbers ***Measurement*** Find different combinations of coins that equal the same amounts of money. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Put coins on a number-line to step-count in 2ps, 5ps and 10ps Solve problems in a practical context involving addition and subtraction of money of the same unit Compare and order lengths using appropriate standard units (cms). Record the results using > , < and = ***Fractions with Geometry*** Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line	Count back from any given number up to 100. Given a number, identify one more and one less Add multiples of 10 to any number using concrete resources and a number-line Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems Revise and use partitions of all numbers up to 20, recalling and deriving associated subtraction facts to solve problems. Represent using part-whole diagrams such as a bar model. Use partitioning and part-whole diagrams to read, write and interpret mathematical statements to 20 when solving problems. Develop children's fluency with using known or derived number facts through the use of multi-representations (concrete and pictorial) Solve one-step problems that involve addition and subtraction to 20, using concrete objects and pictorial representations. ***Subtraction and Addition with statistics*** Interpret and construct simple tally chart, block diagrams and tables. Ask and answer questions about totalling and comparing categorical data ***Addition and Subtraction with Measurement (Money)*** Solve simple problems in practical context involving addition and subtraction of money of the same unit, including giving change. Count in 2ps (5ps, 10ps, 20ps and 50ps) to £1, modelling on a number-line Know 100p = £1, 2x 50ps = £1, 10 x 10ps = £1 , 5 x 20p = £1. Relate to tables facts in the context of money.	Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x) , division (÷) and equals (=) signs Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. ***Measure*** Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Recognise and uses 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 Choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg/g); temperature (°C); capacity (l/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 more (>) than, less than (<) and equals (=) Compare and sequence intervals of time Tell the time to 5 minutes, including quarter past and 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. ***Geometry***

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Identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid. Recognise, find, name and write fractions as equal parts of a shape (link to symmetry and folding). Focus on ½, ¼ , 2/4 = ½ Measurement: tell and write the time to five minutes, including quarter past/ to the hour and draw the hands on the clock face to show these times ***Number and PV with Addition and Subtraction*** Count in steps of 10 from any number forward or backwards, modelling on a number-line Read and write numbers to at least 100 in numerals and in words Compare and order numbers from zero up to 100 using and = Count back from any given number Given a number, identify one (ten) more and one (ten) less within 100. Use structured number-lines to record addition and subtraction number sentences; 2-digit number to add or subtract some ones. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations including on the number-line ***Statistics*** -Construct simple pictograms and tally charts. -Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity	Find different combinations of coins that equal the same amounts of money. Add and subtract 10p(s) to and from an amount of money using 10p and 1p coins and a number-line. ***Fractions*** Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a quantity Write simple fractions e.g. ½ of 6 = 3 , and recognise the equivalence of 2/4 ***Measurement and Geometry*** Compare and sort common 2-D and 3-D shapes and everyday objects Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise). Choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg/g); temperature (°C); capacity (l/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 more (>) than, less than (<) and equals (=) Derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations and mentally including two 2-digit numbers Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures	Recognise and name common 2-D shapes, including squares, circles, rectangles and triangles Recognise and name 3-D shapes, including cuboids, pyramids and spheres. Describe position, directions and movements including $\mathbf{12}$,$\mathbf{1}$,$\mathbf{4}$,$\mathbf{34}$ turns

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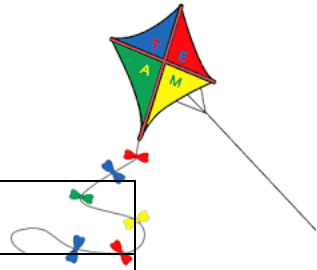

Year 2 Ready to progress criteria	
NPV	Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning Reason about the location of any two digit number in the linear number system, including identifying the previous and next multiple of 10
NF	Secure fluency in addition and subtraction facts within 10, through continued practice
AS	Add and subtract across 10 Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?" Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two digit number Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit number
MD	Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations
F	
M	Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties

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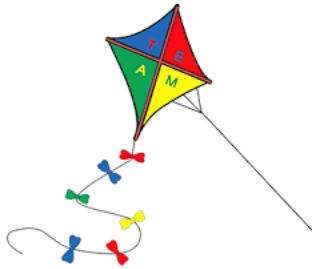

Progression of Skills Lower Key Stage 2		
YEAR 3		
Autumn	**Spring**	**Summer**
Place Value - Recognise the place value of each digit in a three-digit number -Compare and order numbers -Read and write numbers up to 1000 in numerals and words -Count in multiples of 25 and 1000 -Find 10 and 100 more or less than a given number -Identify, represent and estimate numbers using different representations ,including on a number line ***Addition & Subtraction*** -Add and subtract numbers up to 4 digits - Add mentally by bridging numbers -Partition numbers to add two and three-digit numbers -Subtraction 1s, 10s and 100s -Solve addition and subtraction problems in contexts, deciding which operations and methods to use and why -Estimate answers to calculations ***Multiplication & Division*** • Recall and use multiplication and division facts for the 2x, 5x and 10x tables. • Use grid arrays for representing x and ÷ facts • Count in multiples of 3 and 4 from zero • Derive and recall 3x and 4x tables and associated division facts • Write/ recall mathematical statements using mental strategies and known facts (x / ÷)	***Spring 1*** ***Place Value*** -Compare numbers up to 1000 -Order numbers up to 1000 ***Addition & Subtraction*** • Add and subtraction numbers mentally including a 3-digit number and ones, tens or hundreds • Add and subtract numbers with up to three digits using informal written methods • Estimate the answer to a calculation and use inverse operations to check answers -Use addition written methods to solve word problems • Solve number problems, including contextual problems such as +/- length. Estimate the answer to a calculation and use inverse operations to check answers -Measure the perimeter of simple 2D shapes ***Measures (money and time)*** • Find different combinations of coins that equal the same amounts of money (Y2) • Record money calculations pictorially using bar models and number lines Tell and write the time using 12- and 24-hour clocks • Estimate and read the time to the nearest minute **Spring 2**	***Place Value*** -Recall and use multiplication and division facts for 2x, 3x , 4x , 5x , 8x , 10x tables (ongoing) - Round any number to the nearest 10, 100 solve number and practical problems -Read Roman numerals to 100 (I to C) -Tell and write the time on clocks with Roman Numerals ***Addition & Subtraction*** -Solve addition and subtraction problems in contexts, deciding which operations and methods to use and why -Use inverse operations to estimate and check answers - Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs -Add and subtract amounts of money to give change using both £ and p in practical contexts ***Multiplication & Division*** -Solve problems, including missing number problems, involving multiplication and division.

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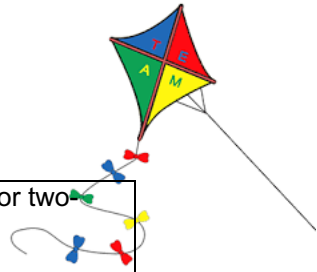

-Understand that division is sharing and grouping • Solve problems involving multiplication and division using number lines, arrays and bars ***Fractions and Geometry*** Recognise and show fractions, using diagrams -Recognise, find, and write unit fractions of a discrete set of objects including 110 -Compare and order fractions with the same denominators (bar model and number line) -Recognise that tenths arise from dividing an object or quantity into ten equal parts - Count up and down in halves, quarters, thirds, and tenths on a number line -Develop fraction families using fraction walls and bar models as an introduction to equivalence ***Measures (Money, Length)*** -Divide a one and two digit number by 10 and 100 Record money calculations pictorially using bar models and number lines Measure, compare, add and subtract length in m and cm Measure the perimeter of simple 2D shapes ***NPV/ Measures*** **Statistics** Interpret and present data using bar charts, pictograms and tables - Solve one-step problems interpreting scaled bar charts, pictograms with non-unit symbols and tables	***Fractions*** Recognise and use unit fractions as numbers on a number line • Recognise and show, using diagrams, equivalent fractions with small, related denominators (fraction families) • Add and subtract fractions with the same denominator within one whole(using bar models) • Compare and order unit fractions • Solve problems involving simple fractions -Recognise, find and write unit and non-unit fractions of discrete sets of objects with small denominators -Recognise and use unit and non-unit fractions with small denominators as numbers on a number line ***Measures*** Measure and compare lengths in m, cm and mm Know 10mm = 1cm; 100cm = 1m; 1000mm = 1m Derive associated facts: 50cm = 12 m , 25cm = 14 m , 75cm = 34 m Count up and down in fractions of measure Recognise the place value in 3-digit numbers and say 10 0r 100 more than a given number Solve problems in practical contexts **Multiplication and Division** -Recall and use multiplication and division facts for 2x, 5x and 10 x (Y2) -Derive, recall and use multiplication and division facts for 3x, 4x and 8x and count in steps of 3 , 4 and 8 from zero -Write and calculate multiplication and division problems using known facts and mental or diagrammatic strategies (arrays)	-Find the effect of dividing a one- or two-digit number by 10 and 100 -Recall and use multiplication and division facts for -Solving integer scaling problems such as 'four times as long and correspondence problems such as 48 sweets shared equally between 4 children , 12 children, 2 children, 6 children etc **Properties of shape** - Recognise 3D shapes in different orientations and describe them - Compare and classify £D shapes including quadrilaterals and triangles, based on their properties and sizes Properties **Summer 2** **Properties of shape** - Identify horizontal and vertical lines - Identify pairs of perpendicular and parallel lines - Draw 2D shapes - Measure the perimeter of 2D shapes - Make 3D shapes using modelling materials ***Fractions*** -Recognise, find and write unit and non-unit fractions of discrete sets of objects with small denominators -Recognise and use unit and non-unit fractions as numbers (on a number line)

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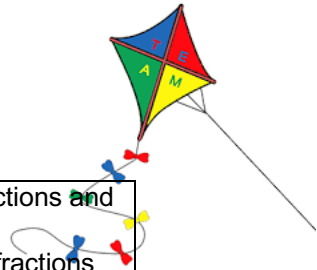

	-Solve missing number problems involving multiplication and division and an understanding of inverse operations and commutativity for x ***Geometry*** -Recognise angles as a property of shape or a description of a turn -Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn -Identify whether angles are greater than or less than a right angle	–Comparing and ordering unit fractions and those with the same denominator -Recognise and show equivalent fractions using diagrams (bars) equivalent fractions **Division** -Solve division problems using repeated subtraction on an empty number line -Begin to use the formal method for division with pictorial aids ***Measures*** -Measure, compare, add and subtract mass (kg) volume/capacity (l/ml) -Know 1000g= 1kg and derive associated facts e.g. 500g = ½ kg, 250g = ¼ kg -Count up and down in fractions of measure -Telling time to the nearest minute -Record and compare time in terms of duration of events -Accurately read scales ***Problem solving*** -Solve addition and subtraction problems in context deciding which operations and methods to use and why -Solve problems involving budgeting -Interpret and solve comparison, sum and difference problems -Solve problems involving length using fractions

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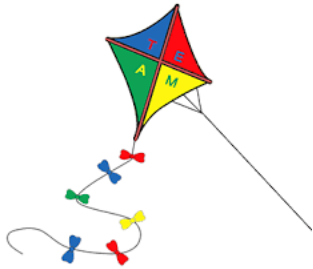

YEAR 4 (Sycamore)		
Autumn	**Spring**	**Summer**
Place Value -Recognise the place value of each digit in 4- digit numbers (1000s, 100s, 10s and ones) up to 10,000 -Identify, represent, and estimate numbers using different representations such as number lines -Manipulate 3 and 4 digit numbers through exchange -Compare and order numbers up to 1000 using < , > , = signs -Read and write numbers up to 1000 in numerals and words -Find 10, 100 or 1000 more or less -Round any number to the nearest 10, 100, 1000 ***Addition & Subtraction*** -Use formal methods to add -Add and subtract numbers mentally including a 3-digit number and ones , tens, and hundreds -Subtract using a number line -Use the expanded method for subtraction - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -Solve addition and subtraction one and two-step problems in contexts, deciding which operations to use and why -Use inverse operations to check answers -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. -Solve comparison, sum and difference problems using information presented in a line graph	**Spring 1** ***Place Value*** Recognise the place value of each digit in a 4-digit number and numbers to one decimal place Find 1000 more or less than a given number Order and compare numbers beyond 1000 ***Addition & Subtraction*** • Recall and use complements to 100 and 1000 to support mental strategies • Add three numbers with a sum of up to 1000 -Use the compact method to solve addition calculations -Solve problems using addition in the context of perimeter Use the compact method for subtraction -Solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why -Estimate the answer to a calculation and use inverse operations to check answers ***Measures (money and time)*** Add and subtract amounts of money to give change using both £ and p and to solve problems • Know 100p = £1 = 2x50p = 10 x 10p = 5 x 20p =50 x 2p; relate to multiplication and repeated addition facts • Record addition and subtraction money calculations using number lines and bar models.	***Place Value*** Derive, recall and use multiplication and division facts up to 12 x 12 (ongoing) Round any number to the nearest 10, 100 solve number and practical problems -Read Roman numerals to 100 (I to C) -Tell and write the time on clocks with Roman Numerals ***Addition & Subtraction*** Solve problems using addition in the context of perimeter -Solve addition and subtraction two-step problems in context, deciding which operations and methods to use and why -Estimate the answer to a calculation and use inverse operations to check answers -Solve comparison, sum and difference problems using information presented in ***Multiplication & Division*** Divide one-and two-digit numbers by 10 and 100 -Recognise and use factor pairs and commutativity in mental calculations -Revise multiplying two-digit and three-digit numbers by a one-digit number

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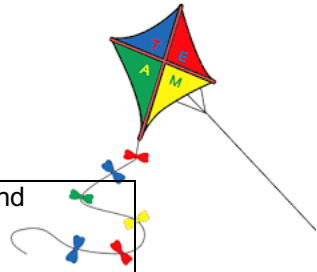

-Statistics: complete, read and interpret information in tables, including timetables. ***Multiplication & Division*** -Understand how arrays show multiplication -Understand that division is sharing and -Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. -Know and use the vocabulary of prime numbers -Multiply and divide numbers mentally drawing upon known facts -Multiply and divide whole numbers and those involving decimals by 10, 100 -Solve problems involving addition, subtraction, multiplication and division -Solve problems involving addition, subtraction, multiplication and division including using their knowledge of factors and multiples, squares and cubes ***Fractions*** -Count up and down in tenths (proper and decimal fractions); recognise that tenths arise from dividing into ten equal parts -Count up and down in hundredths, recognise that hundredths arise from dividing by 100 -Round decimals numbers with one decimal place to the nearest whole number -Find the effect of dividing a one- or two-digit number by 10 or 100 ***Measures*** Know 100p = £1 = 2x50p = 10 x 10p = 5 x 20p = 50 x 2p; relate to multiplication and repeated addition facts Record addition and subtraction money calculations using number lines and bar models. Estimate, compare and calculate with money in £ and p.	• Estimate, compare and calculate with money in £ and p. • Convert between £ and p -Read, write and convert time between analogue and digital 12-hour and 24-hour clocks **Spring 2** ***Fractions*** Recognise and show common equivalent fractions with diagrams • Solve problems with fractions, fractions of quantities and fractions as division, including non-unit fractions where the answer is a whole number. • Find the effect of dividing a one- or two-digit number to 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. • Count up and down in hundredths • Round decimals with one decimal place to the nearest whole number • Link hundredths to dividing by 100 • Recognise and write decimal equivalents to 1/4, 1/2, ¾ Compare and order fractions whose denominators are all multiples of the same number Recognise and show families of equivalent fractions using bar model diagrams - Add and subtract fractions with the same denominator , bridging one whole ***Measures (Money, Length)*** Add and subtract amounts of money to give change using both £ and p and to solve problems **Multiplication and Division** Multiply two-and one-digit numbers by a one-digit number -Divide one-and two-digit numbers by 10 and 100	-Solve integer scaling problems and correspondence problems ***Geometry*** Complete a simple symmetric figure with respect to a specific line of symmetry Identify lines of symmetry in 2D shapes presented in different orientations ***Summer 2*** ***Geometry*** -Measure and compare the perimeter of simple 2D shapes -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes -Describe positions on a 2-D grid as coordinates in the first quadrant -Describe movements between positions as translations of a given unit to the left/right and up/ down ***Fractions*** Compare and order unit fractions whose denominators are all multiples of the same number Solve problems with fractions, fractions as quantities and fraction as division, including non-unit fractions where the answer is a whole number Recognise and write decimal equivalents to ¼, ½ and ¾ ***Division*** Solve division problems with two-digit dividends and one-digit divisors, that involve remainders and interpret

Convert between £ and p **Statistics** Present data using bar charts, pictograms and tables Interpret data using bar charts, pictograms and tables	Multiply two-digit and three-digit numbers by a one-digit number using formal written layout -Find the area of rectilinear shapes by counting squares	remainders appropriately according to the context ***Measures*** -Measure and compare mass (kg and g) -Know 100g = 1kg and derive associated facts 500g = 1/2 kg, 250g = ¼ kg, 750g = ¾ kg -Accurately read scales • Solve problems involving converting between hours, minutes, seconds, years, months, weeks and days. -Read, write and convert time between analogue and digital 12- and 24-hour clocks Solve problems converting between hours, minutes, seconds, years, months, weeks and days • Represent time intervals on a number line • Know 1 hour = 60 minutes; ½ hour = 30 mins, ¼ hour = 15 mins; ¾ hour = 45 mins; 60 seconds = 1 minute (Y3) and 365 days in a year, with 366 I a leap year, 14 days in a fortnight ***Problem Solving*** -Describe positions on a 2-D grid as coordinates in the first quadrant -Describe movements between positions as translations of a given unit to the left/right and up/ down -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
Year 3 Ready to progress criteria		

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NPV	Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three digit multiples of 10 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning Reason about the location of any three digit number in the linear number system, including identifying the previous and next multiple of 100 and 10 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts
NF	Secure fluency in addition and subtraction facts that bridge 10, through continued practice Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10)
AS	Calculate complements to 100 Add and subtract up to three-digit numbers using columnar methods Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction
MD	Apply known multiplication and division facts to solve contextual problems with different structures
F	Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts Find unit fractions of quantities using known division facts (multiplication tables fluency) Reason about the location of any fraction within 1 in the linear number system Add and subtract fractions with the same denominator, within 1
G	Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations Draw polygons by joining marked points, and identify parallel and perpendicular sides

Year 4 Ready to progress criteria	
NPV	Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning

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	Reason about the location of any four digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts
NF	Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context
AS	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100)
MD	Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication Understand and apply the distributive property of multiplication
F	Reason about the location of mixed numbers in the linear number system Convert mixed numbers to improper fractions and vice versa Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers
M	
G	Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry

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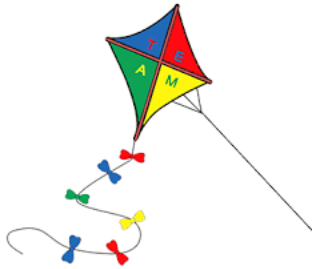

YEAR 4 (Willow)		
Autumn	**Spring**	**Summer**
Number and Place Value -Recognise the place value of each digit in 4- digit numbers (1000s, 100s, 10s and ones) up to 10,000 - Identify, represent, and estimate numbers using different representations such as number lines -Identify Roman Numerals up to 100 -Order and c0mpare numbers - Find 10, 100 or 1000 more or less -Identify, represent and estimate numbers using different representations - Round any number to the nearest 10, 100, 1000 - Recall and use addition and subtraction facts to 20 fluently and derive facts to 100 - Compare and order numbers up to 1000 using < , > , = signs - Add and subtract numbers mentally including a 3-digit number and ones, tens, and hundreds. (Y3) -Estimate the answer to a calculation and use inverse operations to check answers - Solve addition and subtraction two-step problems in contexts, deciding which operations to use and why ***Addition and Subtraction, statistics*** Add and subtract numbers up to 4 digits using formal written methods -Solve addition and subtraction one and two step problems in contexts, deciding which operations and methods to use and why and in the context of statistics	***Measures*** -Accurately read the time ***Addition and Subtraction*** - Add and subtract numbers with up to 4 digits -Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why -Estimate and use inverse operations to check answers to calculations -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. ***Multiplication and Division*** -Recall 2/3/4/5/6/8 multiplication and division facts for multiplication tables -Use place value, known and derived facts to multiply and divide including: ∗ multiplying by 0 and 1 ∗ multiply two-digit and three-digit numbers by a one-digit number -Solve problems involving multiplying and adding 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. -Solve two - step problems in contexts, deciding which operations and methods to use and why. ***Fractions and Decimals*** -Recognise and show common equivalent fractions with diagrams	***Statistics*** -Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs -Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. ***Number and measure*** -Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why -solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. -Recall multiplication and division facts for all multiplication tables -Use place value, known and derived facts to multiply and divide including: ∗ multiplying by 0 and 1 ∗ multiply two-digit and three-digit numbers by a one-digit number -Solve problems involving multiplying and adding 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.

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- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. -Estimate and use inverse operations to check answers to a calculation. ***Multiplication and Division*** -Recall 2/3/4/5/6/8 multiplication and division facts for multiplication tables -Solve problems involving multiplying and adding using the distributive law to multiply two digit numbers by one digit and integer scaling problems ***Fractions*** -Recognise and show fractions of equivalent fractions using bar model diagrams -Compare and order fractions -Explore fractions up to and greater than 1 -Find the effect of dividing a one- or two-digit number by 10 and 100 Recognise and show, using diagrams -Add and subtract fractions with the same denominator -Solve problems involving increasingly harder factions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number ***Geometry*** -Compare and classify geometric shapes, including quadrilaterals based on their properties and sizes -Identify acute and obtuse angles -Complete a simple symmetric figure with respect to a specific line of symmetry -Identify lines of symmetry in 2-D shapes presented in different orientations -Describe positions on a 2-D grid as coordinates in the first quadrant ***Measure*** -Convert between different units of measure	-Solve problems with fractions , fractions of quantities and fractions as division, including non-unit fractions where the answer is a whole number. -Find the effect of dividing a one- or two-digit number to 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths. -Count up and down in hundredths -Round decimals with one decimal place to the nearest whole number -Link hundredths to dividing by 100 -Recognise and write decimal equivalents to ¼ , ½ and ¾ -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes -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 ***Measure*** - Estimate, compare and calculate different measures, including money in pounds and pence - 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. ***Geometry*** -Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes -Draw and describe points and shapes using co ordinates - Identify lines of symmetry in 2-D shapes presented in different orientations -estimate and compare acute and obtuse angles -Recognise angles within shapes	***Geometry / Measure*** -Describe position, direction and movement, including whole, half, quarter and three-quarter turns ***Multiplication*** -Multiply two-digit and three-digit numbers by a one-digit number -Solve problems involving multiplying and adding 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. ***Fractions and Decimals*** - Solve problems involving to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number - Recognise and show, using diagrams, families of common equivalent fractions -Recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. ***Measures (Time, Money)*** -Solve simple money problems involving fractions and decimals to two decimal places -Estimate, compare and calculate with money in £ and p - Read, write and convert between analogue and digital 12- and 24-hour clock -Solve problems involving converting between different units of time and between pounds and pence

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-Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres -Find the area of rectilinear shapes by counting squares -Estimate, compare and calculate different measures, including money in pounds and pence ***Decimals*** -Understand and write decimal numbers -Round decimals with one decimal place to the nearest whole number -Convert between £ and p -Estimate, compare and calculate with money in £ and p -Solve simple measure and money problems involving fractions and decimals to two decimal places	***Fractions and Decimals*** - Solve problems involving to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number - Recognise and show, using diagrams, families of common equivalent fractions -Recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. ***Measure (Time)*** -Read, write and convert time between analogue and digital 12-hour and 24-hour clocks -Solve problems involving converting between hours, minutes, seconds, years, months, weeks and days. -Represent time intervals on a number line - Know 1 hour = 60 minutes; $\frac{1}{2}$ hour = 30 mins, $\frac{1}{4}$ hour = 15 mins; $\frac{3}{4}$ hour = 45 mins; 60 seconds = 1 minute (Y3) and 365 days in a year, with 366 I a leap year, 14 days in a fortnight	

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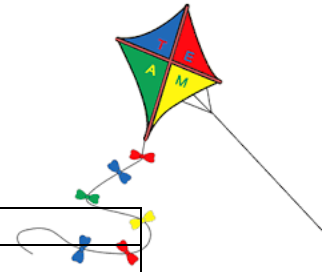
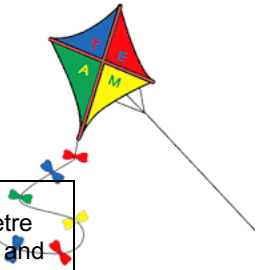


Progression of Skills Upper Key Stage 2		
YEAR 5 (Willow)		
Autumn	**Spring**	**Summer**
Number and Place Value, Addition and Subtraction -Read, write, order and compare numbers to at least 100,000 and determine the value of each digit - Identify, represent and estimate numbers using different representations -Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. -Order and compare numbers up 10 100,000 - Round any number to the nearest 10,100,1000, 10 000 and 100 000 -Add and subtract whole numbers with more than four digits using informal and formal written methods -Use rounding to check answers and determine, in the context of the problem, the level of accuracy. -Solve addition and subtraction multi-step problems, deciding which operations to use and why - Measure and calculate the perimeter of composite rectilinear shapes in cm and m - Use all four operations to solve problems involving length, using decimal notation -Read Roman numerals to 1000 (M) and recognise years written in Roman numerals. ***Addition and Subtraction, statistics*** - Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy -Statistics: complete, read and interpret information in tables, including timetables. -Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. -Solve comparison, sum and difference problems using information presented in a line graph	***Measures*** -Accurately read the time ***Addition and Subtraction*** -Count forwards or backwards in steps of powers of 10 up to 1,000,000 -Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero - Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. -Solve comparison, sum and difference problems using information presented in a line graph ***Multiplication and Division*** - Know and use multiplication and division facts up to 12 x 12 - Multiply three numbers together, knowing that this can be done in any order -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers -Multiply numbers up to 4 digits by a one- or two-digit number using multiplication and division and a combination of these, including understanding the meaning of the equals sign -Recognise and use square numbers, and the notation for squared (^{2}) -Solve multi-step problems in contexts, deciding which operations and methods to use and why. ***Fractions, Decimals and Percentages*** -Solve problems involving number up to three decimal places	***Statistics*** Solve comparison, sum and difference problems using information presented in a line graph ***Geometry / Measure*** -Calculate and compare the area of rectangle (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes - Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metre ***Multiplication and Division*** -Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers -Multiply numbers up to 4 digits by a one- or two-digit number using Multiplication and division and a combination of these, including understanding the meaning of the equals sign -Recognise and use square numbers, and the notation for squared (2) -Solve addition and subtraction multi-step problems (year 4 2 step problems, year 5 more than 2) in contexts, deciding which operations and methods to use and why. ***Measure*** -Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.

Twyford St Mary's Curriculum Intent



Multiplication and Division -Recall and use multiplication and division facts up to 12 x 12 and derive related facts -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 -Multiply and divide numbers mentally drawing upon known facts -Multiply and divide whole numbers and those involving decimals by 10, 100 -Solve problems involving addition, subtraction, multiplication and division -Solve problems involving addition, subtraction, multiplication and division including using their knowledge of factors and multiples, squares and cubes ***Fractions*** -Compare and order fractions whose denominators are all multiples of the same number -Calculate and compare fractions of amounts Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. 2/5 + 4/5 = 6/5 = 11/5) -Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths -Add and subtract fractions with the same denominator and multiples of the same number ***Measure*** -Estimate and total money amounts -Calculate change ***Geometry*** - Identify 3-D shapes, including cubes and other cuboids, from 2-D representations -Know angles are measured in degrees	- Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 or those with a denominator of a multiple 10 or 25. - Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths - Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction and as a decimal fraction. ***Measure*** - Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling. - Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) - Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints - Estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water) ***Geometry*** -Calculate and compare the area of rectangle (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes - measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres - draw given angles, and to measure them in degrees - use the properties of rectangles to deduce related facts and find missing lengths and angles	- convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) - understand and use equivalences between metric units and common imperial units such as inches, pounds and pints - estimate volume (e.g. using 1 cm3 blocks to build cubes and cuboids) and capacity (e.g. using water) To solve problems involving addition, subtraction, multiplication and division ***Fractions, Decimals and Percentages*** Solve problems involving number up to three decimal places - Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 or those with a denominator of a multiple 10 or 25. - Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths - Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction and as a decimal fraction.

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-Estimate and compare acute, obtuse and reflex angles ***Measure*** -Convert between different units of metric measure -Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres -Calculate and compare the area of rectangle (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes - identify: angles at a point and one whole turn (total 360o) ***Decimals*** Solve problems involving number up to three decimal places -Round decimals with two decimal places to the nearest whole number and to one decimal place -Use all four operations to solve problems involving measure using decimal notation including scaling.	- distinguish between regular and Irregular polygons based on reasoning about equal sides and angles ***Fractions, Decimals and Percentages*** -Solve problems involving number up to three decimal places - Solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5 or those with a denominator of a multiple 10 or 25. - Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths - Read and write decimal numbers as fractions (e.g. 0.71 = 71/100) - Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents -Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction and as a decimal fraction.	

Year 4 Ready to progress criteria	
NPV	Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning Reason about the location of any four digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts
NF	Recall multiplication and division facts up to , and recognise products in multiplication tables as multiples of the corresponding number Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context
AS ***MD***	Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size

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	Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication Understand and apply the distributive property of multiplication
F	Reason about the location of mixed numbers in the linear number system Convert mixed numbers to improper fractions and vice versa Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers
M	Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry
Year 5 Ready to progress criteria	
NPV	Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each
NF	Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts Convert between units of measure, including using common decimals and fractions Secure fluency in multiplication table facts, and corresponding division facts, through continued practice Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)
AS	
MD	Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. Multiply any whole number with up to 4 digits by any one-digit number using a formal written method

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F	Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context Find non-unit fractions of quantities Find equivalent fractions and understand that they have the same value and the same position in the linear number system Recall decimal fraction equivalents for , , and , and for multiples of these proper fractions
M	Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size Compare areas and calculate the area of rectangles (including squares) using standard units

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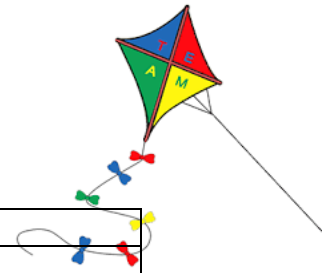

YEAR 5 (YEW)		
Autumn	**Spring**	**Summer**
Number and Place Value, Addition and Subtraction -Read, write, order and compare numbers to at least 100,000 and determine the value of each digit - Compare and order whole numbers to at least 100,000 -Count forwards and back in steps of powers of 10 from any given number to a million -Identify, represent, and estimate numbers using different representations -Round any number to the nearest 10,100,1000, 10 000 and 100 000 -Use rounding to check answers and determine, in the context of the problem, the level of accuracy. -Interpret negative numbers in context, count forwards and backwards with positive and negative numbers through zero (link number-line to a thermometer) -Add and subtract whole numbers with up to 5 digits using informal and formal written methods -Subtract whole numbers with up to 5 digits using an efficient written method - Solve addition and subtraction multi-step problems, deciding which operations to use and why -Measure and calculate the perimeter of composite rectilinear shapes in cm and m -Use all four operations to solve problems involving length, using decimal notation ***Multiplication and Division*** -Represent multiplication and division facts as grid arrays, linking to rectangular areas, identifying factors as whole number side lengths of rectangles - Use place value to multiply and divide numbers by 10 and 100	***NPV with measurement*** Read and write tenths and hundredths as decimals or fractions -Round decimals with two decimal places to the nearest whole number Round decimals with two decimals places to the nearest whole number or tenth -Multiply and divide numbers by 10, 100 and 1000 where are answers are up to 3 decimal places -Convert between different units of metric measure -Use all four operations to solve problems involving measure (mass and capacity) using decimal notation including scaling -Read, write and convert time between analogue and digital time and solve time problems -Solve problems involving converting between units of time - Convert between different units of metric measure (link to scaling x / ÷ 10 , 100 , 1000) - Estimate capacity in litres and ml -Read scales graded in different sized intervals -Understand and use equivalences between metric units and common imperial units such as inches, pounds, and pints -Use all four operations to solve problems involving mass and capacity using decimal notation and scaling -Use any combination of operations to solve problems -Know that the distributive law means that a(b+c) = ab + ac so 13 x 8 = 8x (10 + 3) = 8 x 10 + 8 x 3 -Multiply numbers up to 4-digits by a one- or two-digit numbers using an appropriate written method ***Geometry***	Consolidate our understanding of multiples, factors and primes Revise multiplying, dividing by powers of ten and missing number problems Revise work on coordinates Revise work on statistics Revise work on ratio Revise percentages of amounts and solve problems using the skill Revise multiplying numbers up to 4 digits by 2 digit numbers Revise dividing 4 digit numbers by 1 and 2 digit numbers using formal methods Revise addition and subtraction of fractions with unlike numbers, including mixed numbers Multiply proper fractions by whole numbers Read and write decimal numbers as fractions and vice versa Reason about properties of 3D shapes and their nets Classify quadrilaterals and use their properties to work out missing angles Use the properties of triangles to find missing angles **Half Term** Recognise if a number is divisible by 2, 5, 10 and use the rules of divisibility to test for divisibility by 3, 4, 6 and 9 Solve division problems, interpreting the answers appropriately for the context

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- Multiply numbers up to 4-digits by a one- or two-digit numbers using an appropriate written method - Calculate and compare the area of rectangles using standard units (m^2 and cm^2) and estimate the area of irregular shapes - -Use knowledge of multiples to estimate division calculations such as 1075 ÷ 25 ≈ 40 since 4 x 25 = 100 -Represent division calculations (not the solution) as number-lines and bar models to support conceptual understanding before solving. -Divide numbers up to 4 digits by a 1- digit number using formal methods ***HALF TERM*** ***Multiplication and Division*** -Solve calculation problems involving division and interpret remainders -Identify factors and multiples, finding all factor pairs of a number and common factors of two numbers. - Know prime numbers to 20 -Recall square numbers and cube numbers, and the notation for them -Understand and use the terms factor, multiple, prime, square and cube numbers and use them to construct statements such as 4 x 35 = 2 x 2 x 35 -Use place value to multiply and divide numbers by 10 and 100 -Use knowledge of multiples to estimate division calculations such as 1075 ÷ 25 ≈ 40 since 4 x 25 = 100 ***Fractions*** -Use common factors to simplify fractions -Identify, name, and write equivalent fractions of a given fraction, including tenths and hundredths	-Know angles are measured in degrees -Estimate and compare acute, obtuse, and reflex angles -Identify angles at a point and one whole turn (360º), at a point on a straight line and half a turn (180º),and other multiples of 90º. -Estimate and compare acute, obtuse, and reflex angles -Identify angles at a point and one whole turn (360º), at a point on a straight line and half a turn (180º),and other multiples of 90º. - - Know that there are four right angles in a complete turn and two in a half turn. -Measure and draw given angles - Identify, describe, and represent the position of a shape following a reflection or translation. Know that the shape has not changed, and internal angles are preserved - Describe and plot positions in the first quadrant -Draw and translate points and simple shapes on the co ordinate plane -Identify, describe and represent the position of a shape following reflection -Read, write and draw line graphs ***NPV, measurement and operations*** -Round decimals with two decimals places to the nearest whole number or tenth - Convert between different units of metric measure (link to scaling x / ÷ 10 , 100 , 1000) - Estimate capacity in litres and ml -Read scales graded in different sized intervals -Understand and use equivalences between metric units and common imperial units such as inches, pounds, and pints -Use all four operations to solve problems involving mass and capacity using decimal notation and scaling	Consolidate understanding of decimal fractions and operations involving decimals Order and compare decimals showing a sound understanding of place value Revise equivalences between fractions, decimals and percentages Calculate percentages of amounts and solve problems involving percentages Round decimals to the nearest whole number and decimal place Convert to and from 24 hour clock time Solve problems involving mass Find the volume of cubes and cuboids Interpret and present data in a line graph Solve problems involving mass Find the volume of cubes and cuboids Interpret and present data in a line graph ***Geometry*** -Plot points on a coordinate grid in the first quadrant (moving to all four quadrants as appropriate) -Identify, describe and represent the position of a shape following a reflection or a translation, using appropriate language and know that the shape has not changed -Plot points on a coordinate grid in the first quadrant (moving to all four quadrants as appropriate) -Identify, describe and represent the position of a shape following a reflection or a translation, using appropriate language and know that the shape has not changed -Distinguish between regular and irregular polygons based on reasoning about equal sides and angles

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-Add and subtract fractions with the same denominator (Y4) -Compare and order fractions whose denominators are multiples of the same number -Recognise mixed numbers and improper fractions and convert from one to another -Write fractions >1 as a mixed number - Add and subtract fractions with the same denominator beyond 1 and those with denominators that are multiples of the same number -Multiply proper fractions by a one digit number -Read and write tenths and hundredths as decimals or fractions -Round decimals with two decimal places to the nearest whole number Round decimals with two decimals places to the nearest whole number or tenth -Multiply and divide numbers by 10, 100 and 1000 where are answers are up to 3 decimal places -Convert between different units of metric measure -Use all four operations to solve problems involving measure (mass and capacity) using decimal notation including scaling -Read, write and convert time between analogue and digital time and solve time problems -Solve problems involving converting between units of time	***Fractions and Decimals*** -Add and subtract fractions with the same denominator beyond one and multiples of the same number. Use diagrams such as bar models to show part-part-whole relationships -Know that 1/10 = 0.1 and 1/100 = 0.01 -Recognise the percent symbol (%) and understand that percent relates to the number of parts per 100, write percentages as a fraction with the denominator 100 and as a decimal fraction -Write percentages as a fraction with a denominator of 100 and as a decimal fraction -Know percentage and decimal equivalents - Read and write decimal numbers as fractions - Recognise and use thousandths - Round decimals with two decimal places to the nearest whole number or tenth -Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 -Identify, name, and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. - Read and write decimal numbers as fractions (e.g. 0.71 = 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. Ratio ***Geometry and Angles*** -Know angles are measured in degrees: estimate and compare acute, obtuse, and reflex angles -Estimate and compare acute, obtuse and reflex angles -Draw given angles, and measure them in degrees -Use the properties of rectangles to deduce related facts and find missing lengths and angles	***Multiplication and Division*** -Identify multiples and factors, including all factor pairs of a number and common factors of two numbers -Know and use prime numbers, prime factors and composite (non-prime) numbers and associated vocabulary. -Construct arrays for prime numbers and know that they have exactly two factors. - Recognise and use square numbers and cube numbers and the associated notation (2 and 3). -Construct arrays for square numbers and know that they have an odd number of factors - Solve problems involving all four operations including using knowledge of factors, multiples, primes, squares and cubes -Multiply numbers up to 4-digits by one- or two-digit numbers, drawing upon known facts - Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. -Solve problems involving multiplication and division, including using their knowledge of factors and multiples -Solve problems involving multiplication and division, including scaling by simple fractions (half of a quantity) ***All 4 Operations (including FDP)*** -Solve multi-step problems involving all four operations in context, deciding which operations and methods to use and why -Use a range of appropriate numbers to

	-Calculate area of rectangles, triangles and parallelograms -Complete, read and interpret information in tables , including time tables -Identify 3D shapes from 2D representations ***Addition and Subtraction*** -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 context. Deciding which operations and methods to use and why -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 context. Deciding which operations and methods to use and why. -Solve problems involving numbers and measure with up to three decimal places representations ***Statistics*** -Solve comparison, sum and difference problems using information presented in a line graph - Complete, read and interpret information in tables ***Fractions, Measurement*** Understand and use equivalences between metric units and common imperial units such as inches, pounds, and pints -Estimate volume using 1cm3 blocks to build cuboids, and capacity using measuring jugs and cylinders -Identify 3D shapes from 2D representations -Construct 3D models using their nets and estimate their volume	solve problems in context, including integers, fractions decimals and percentages - Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy, interpreting remainders and rounding. ***FDP, Geometry*** Compare and order, add and subtract fractions whose denominators are all multiples of the same number • Identify, name and write equivalent fractions of a given fraction, represent visually, including tenths and hundredths • Recognise mixed numbers and improper fractions and convert between both forms. Write fractional number sentences >1 as mixed numbers and improper fractions • Multiply proper fractions and mixed numbers by whole numbers (integers), supported by materials and diagrams. • Know angles are measured in degrees • Estimate and compare acute, obtuse and reflex angles • Draw given angles and measure them in degrees • Identify angles at a point and one whole turn (360º), at a point on a straight line and half a turn (180º),and other multiples of 90º. • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Recognise the per cent symbol (%) and understand that it relates to the number of parts per 100 • Write percentages as a fraction with 100 as the denominator and as a decimal fraction • Solve problems which require knowing percentage and decimal equivalents • Solve simple percentages of amounts problems,

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	- Multiply three numbers together, understanding that this can be done in any order, and linking to the volume of cuboids - Solve problems involving capacity, including reading a range of scales. -Multiply proper fractions and mixed numbers by a whole number, supported by materials and diagrams -Solve problems involving decimal and percentage equivalents - Read, write, order, and compare numbers with up to three decimal places, and solve problems involving these numbers	using 1% 10% and 50% and linking to division by 100, 10 and 2

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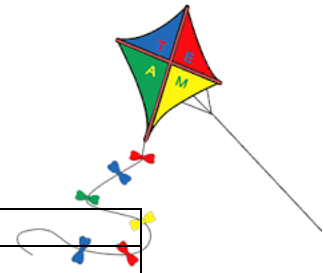

YEAR 6		
Autumn	**Spring**	**Summer**
Number and Place Value, Addition and Subtraction -Read, write, and compare numbers to at least 10,000,000 and determine the value of each digit -Identify, represent, and estimate numbers using different representations including number lines -Count forwards and backwards in steps of powers of 10 from any given number to a million -Compare and order whole numbers to at least a million -Round any whole number to a required degree of accuracy -Interpret negative numbers in context and calculate intervals across zero -Add and subtract whole numbers with more than 4 digits using informal and formal written methods as appropriate -Solve addition and subtraction multi-step problems in context , deciding which operations and methods to use and why -Measure and calculate the perimeter of composite rectilinear shapes in cm and m -Perform mental calculations, including with mixed operations and large numbers -Multiply and divide mentally by 10, 100 and 1000 -Use our knowledge of the order of operations to carry out calculations involving the four operations -Use estimation to check answers to calculations and determine, in the context of a problems, levels of accuracy -Recognise shapes with the same area can have different perimeters and vice versa ***Multiplication and Division and Equations***	***NPV with measurement*** - Read and write tenths, hundredths and thousandths as decimals or fractions -Order and compare decimal fractions -Round decimals to the nearest whole number and one decimal place **Geometry** -Know angles are measured in degrees -Estimate and compare acute, obtuse and reflex angles -Find unknown angles in triangles, quadrilaterals, and regular polygons - Recognise angles at a point, on a straight line and vertically opposite and use this to find missing angles -Estimate, measure and draw given angles - Draw 2D shapes using given dimensions and angles -Illustrate and name part of circles, including radius, diameter, and circumference -Know that the diameter is twice the radius ***Number and Place Value, Addition, Subtraction, Multiplication and Division, Measurement and Statistics*** -Add and subtract numbers with up to two decimal places -Multiply and divide numbers by 10,100 and 1000 where answers have up to three decimal places -Use oral and written methods to multiply decimal numbers -Calculate the area of rectilinear shapes -Use division methods in cases where the answer has 2 decimal places	**Revision** Consolidate our understanding of multiples, factors, primes and order of operations Revise multiplying, dividing by powers of ten and missing number problems Revise work on coordinates Revise work on ratio and scale factor Revise percentages of amounts and solve problems using the skill Revise multiplying numbers up to 4 digits by 2 digit numbers Revise dividing 4 digit numbers by 1 and 2 digit numbers using formal methods Find the mean average Revise addition and subtraction of fractions with unlike numbers, including mixed numbers Multiply and divide proper fractions by whole numbers Read and write decimal numbers as fractions and vice versa Reason about properties of 3D shapes and their nets Classify quadrilaterals and use their properties to work out missing angles Use the properties of triangles to find missing angles **Half Term** Recognise if a number is divisible by 2, 5, 10 and use the rules of divisibility to test for divisibility by 3, 4, 6 and 9 Solve division problems, interpreting the answers appropriately for the context

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-Represent multiplication and division facts as grid arrays, linking to rectangular areas, identifying factors as whole number side lengths of rectangles Use place value to multiply and divide numbers by 10 and 100 -Multiply numbers up to 4 digits by a 1 digit or 2 digit number using formal methods -Calculate and compare the area of rectangles using standard units (m^2 and cm^2) and estimate the area of irregular shapes Divide numbers up to 4-digits by a 2-digit whole number using a formal written method of long division (see NC appendix for methods) and interpret remainders as a whole number, fraction, or by rounding as appropriate for the context -Express remainders to division calculations as decimals or fractions Divide numbers up to 4 digits by a 2 digit number using long division -Identify factors and multiples, finding all factor pairs of a number and common factors of two numbers. - Know prime numbers to 20 - Recall square numbers and cube numbers and the notation for them ***Fractions*** -Use common factors to simplify fractions - Compare and order fractions -Add and subtract fractions with unlike denominators -Recognise mixed numbers and improper fractions and convert from one to another - Multiply proper fractions by a one-digit number -Multiply simple pairs of proper fractions, writing the answer in its simplest form -Divide proper fractions by whole numbers - Read and write tenths, hundredths and thousandths as decimals or fractions -Order and compare decimal fractions	-Calculate the area of parallelograms and triangles where some sides are decimal numbers -Convert measurements of length, mass and capacity -Convert between imperial and metric units -Solve problems involving scaling numbers and quantities -Describe and plot positions on a grid in all four quadrants -Draw and translate points and simple shapes in the full coordinate place and reflect them in the axes -Identify, describe and represent the position of a shape following a reflection -Read, interpret and draw line graphs ***Ratio and proportion; FDP*** -Solve problems involving scaling numbers and quantities -Solve problems involving the relative size of two quantities where answers can be found using multiplication and division -Solve problems involving the relative size of two quantities -Solve problems involving similar shapes where the scale factor is known or can be found -Recall and use equivalences between simple fractions and percentages in different contexts -Recall and use equivalences between simple fractions, decimals and percentages -Solve problems involving percentages of amounts -Solve problems involving percentages, including percentages for comparison -Interpret percentages within pie charts and use pie charts to solve problems - Construct pie charts and use them to solve problems ***Algebra***	Consolidate understanding of decimal fractions and operations involving decimals Order and compare decimals showing a sound understanding of place value Revise equivalences between fractions, decimals and percentages Calculate percentages of amounts and solve problems involving percentages Round decimals to the nearest whole number and decimal place Convert to and from 24 hour clock time Solve problems converting between units of time Calculate time durations Convert between units of measure Solve problems involving mass Find the volume of cubes and cuboids Interpret and present data in a line graph ***Geometry*** -Distinguish between regular and irregular -Reason about properties of 3D shapes and their nets -Understand the features of quadrilaterals -Understand how to find missing angles based on the rules of quadrilaterals -Use the properties of triangles to find missing angles ***Number and Place Value, Division*** -Become confident in using the BODMAS Order of Operations -Recognise if a number is divisible by 2, 5, 10 and use the rules to test for divisibility by 3, 4, 6 and 9

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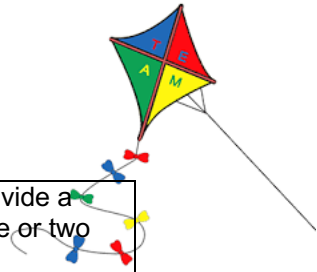

-Round decimals to the nearest whole number and one decimal place	-Write simple algebraic expressions -Substitute into simple expressions to find a particular value -Express missing number problems algebraically -Solve one step equations -Find pairs of values and list possibilities of combinations ***Measures*** -Find the volume of cubes and cuboids -Revise our understanding of FDP equivalence and related facts -Revision Programme	-Use a formal written method to divide a three or four digit number by a one or two digit number. - Consolidate understanding of decimal fractions and operations involving decimals -Order and compare decimal fractions ***Measurement*** -Understand capacity and convert units of measurement -Solve problems involving mass -Convert to and from 24 hour time -Solve problems converting between units of time -Calculate time durations -Find the volume of cubes and cuboids

Year 5 Ready to progress criteria	
NPV	Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01. Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning
NF	Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts Convert between units of measure, including using common decimals and fractions Secure fluency in multiplication table facts, and corresponding division facts, through continued practice Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)
AS	Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size
MD	Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors. Find non-unit fractions of quantities Find equivalent fractions and understand that they have the same value and the same position in the linear number system

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F	Recall decimal fraction equivalents for , , and , and for multiples of these proper fractions
	Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size
M	Compare areas and calculate the area of rectangles (including squares) using standard units
Year 6 Ready to progress criteria	
NPV	Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000) Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
NF	
AS	Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number) Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding Solve problems involving ratio relationships Solve problems with 2 unknowns.
MD	As above
F	Recognise when fractions can be simplified, and use common factors to simplify fractions Express fractions in a common denomination and use this to compare fractions that are similar in value Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy
M ***G***	Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems