| Year 4 - Maths |
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| Number - Place Value |

To count in multiples of 6, 7, 9, 25 and 1000

- I can count on and back in 100s from 0 to 1000
- I can count on and back in 10s from any given number between 0 and 10,000
- I can count on and back in 100s from 0 and 10,000
- I can count on and back in 50 s from 0 to 1000 starting from any given number
- I can count on and back in 25 s from 0 to 1000 starting from any given number
- I can count on and back in 9 s from 0 to 1000 starting from any given number
- I can count on in 8 s from 0 to 1000 starting from any given number
- I can count on in 7 s from 0 to 1000 starting from any given number
- I can count on in 6 s from 0 to 1000 starting from any given number

To find 1000 more or less than a given number

- I can find a number that 100 more than a given 3-digit number
- I can find a number that 100 less than a given 3 -digit number
- I can find a number that 1000 more than a given 4-digit number
- I can find a number that is 1000 less than a given 4-digit number

To count backwards through zero to include negative numbers

- I can identify which of 2 negative numbers is the greater
- I can identify which of 2 negative numbers is the smaller
- I can count accurately forwards from any negative number to any positive number, moving across the 0
- I can count accurately backwards from my positive number
- I can order a set of negative and positive numbers showing largest or smallest first to any negative number, moving across the 0
- I can recognise that the value of any negative number is less than 0

To recognise the place value of each digit in a four-digit number

- I can write all number to 9,999
- I can read all number to 9,999
- I can recognise the place value of: one, tens, hundreds and thousands

To compare and order numbers beyond 1000

- I can know and use term: ones, tens, hundreds and thousands correctly
- I can partition any number up to 9,999 showing the value of each digit
- I can work out which of two 4-digit numbers is the greater and smaller
- I can order a set of 4-digit numbers from smallest to largest
- I can order a set of 4-digit number from largest to smallest

To round any number to the nearest 10, 100 or 1000

- I can round any number up to 100 to the nearest 10
- I can round any number up to 1000 to the nearest 10
- I can round any number up to 1000 to the nearest 100
- I can round any number up to 10,000 to the nearest 1000

To identify, represent and estimate numbers using different representations

- I can know and use term: ones, tens, hundreds and thousands correctly
- I can identify the value of each digit using ones, tens, hundreds and thousands
- I can represent the values; ones, tens, hundreds and thousands in various ways
- I can estimate values to thousands


## Year 4 - Maths

## Number - Place Value

To read Roman numerals to 100

- I can recognise all Roman Numerals with values of 1 to 10 (I to X)
- I can quickly find the equivalent TU value for all Roman Numerals between 1 and 10
- I can recognise the equivalents for all ten numbers between 10 and 100
- I can immediately sat what the Roman Numeral is for 50 to 100
- I can write any Roman Numeral between 1 and 100
- I can quickly find the equivalent TU value for all Roman Numerals between 1 and 100
- I can create my own number system based on what I know about our system and the Roman system


## Year 4 - Maths

## Number - Addition \& Subtraction

To add numbers with up to 4 digits using the formal written methods

- I can explain the value of each digit in a 4-digit number
- I can partition a 4-digit number so that each digit's true value is seen
- I can add 2 numbers with 4-digits together using column addition without exchange between ones and tens
- I can add 2 numbers with 4-digits together using column addition, where the ones, tens or hundreds when added makes more than 10
- I can add 3 numbers with 4-digits together using column addition, where the ones, tens or hundreds when added makes more than 10

To subtract numbers with up to 4 digits using the formal written methods

- I can explain the value of each digit in a 4-digit number
- I can partition a 4-digit number so that each digit's true value is seen
- I can subtract a 4-digit number from another using column subtraction which requires no exchange between the ones, tens, hundreds or thousands
- I can subtract a 4-digit number from another using column subtraction which requires exchange between the ones, tens, hundreds or thousands

To estimate and use inverse operations to check answers to acalculation

- I can estimate the answer to any given addition involving two 2-digit numbers to the nearest 10
- I can estimate the answer to any given addition involving three 2-digit numbers to the nearest 100
- I can estimate the answer to any given addition involving three 2-digit numbers to the nearest 10
- I can estimate the answer to any given subtraction involving two 2-digit numbers to the nearest 10
- I can estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 100
- I can estimate the answer to any given subtraction involving two 3-digit numbers to the nearest 10
- I can explain the meaning of the term 'inverse'
- I can check the answer to any given addition involving 2 numbers using the inverse method

To solve addition and subtraction two-step problems in contexts

- I can consistently read through a word problem carefully before trying to solve it
- I can recognise which key words to look for to help me know which operation I am likely to need to use
- I can solve word problems that require one step
- I can solve a 2-step problem that requires addition to 1000
- I can solve a 2-step problem that requires subtraction to 1000
- I can solve a 2-step problem that requires addition and subtraction to 1000

|  | ear 4 - Maths |
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| To recall multiplication and division facts for tables up to $12 \times 12$ <br> - I can recite all multiplication facts for the X2; X3; X4; X5; X8 tables <br> - I can recite all multiplication facts for the X6 tables <br> - I can recite all multiplication facts for the X9 tables <br> - I can recite all multiplication facts for the X11 tables <br> - I can recite all multiplication facts for the $X 7$ tables <br> - I can recite all multiplication facts for the X12 tables <br> - I can recall all number fact for the $6,7,9,11$ and $12 \times$ tables out of sequence <br> - I can recall the inverse of all table facts involving $6,7,9,11$ and $12 \times$ table <br> To use place value, known and derived facts to multiply and divide mentally <br> - I can use all multiplication facts up to $12 \times 12$ to calculate multiplication problems <br> - I can demonstrate understanding of what happens when you multiple by 1 <br> - I can demonstrate understanding of what happens when you multiple by 10 <br> - I can demonstrate understanding of what happens when you divide by 1 <br> - I can demonstrate understanding of what happens when 3 numbers are multiplied together <br> To recognise and use factor pairs <br> - I can understand the term 'prime factor' <br> - I can recognise all the factors within all number to 10 within the $X 2, X 3, X 4, X 5$ and $X 10$ tables <br> - I can recognise all the factors within all number to 10 within the $X 6, X 7, X 8, X 9 \times 11$ and X12 tables <br> - I can recognise all the factors up to $12 \times 12$ <br> To multiply two-digit and three-digit numbers by a one-digit number using formal written layout <br> - I can multiply a multiple of 1000 by $X 10 ; X 11$ and $X 12$ <br> - I can multiply a 2-digit number by all single digit numbers using a formal layout <br> - I can multiply a 2-digit number by X10; X11 and X12 using a formal layout <br> - I can multiply a 3-digit number by a single digit using a formal layout <br> - I can multiply a 3-digit number by X10; X11 and X12 using a formal layout <br> To divide 2-digit and 3-digit numbers by a 1-digit number using formal written layout with no remainder <br> - I can use practical resources to share two digit numbers <br> - I can divide a two-digit number by a one digit number using a number line <br> - I can divide a two-digit number by a one digit number using the 'bus stop' method <br> - I can divide a three-digit number by a one digit number using the 'bus stop' method <br> - I can divide using the short division method <br> - I can use all multiplication facts up to $12 \times 12$ to calculate division problems |  |

## Year 4 - Maths

## Number - Fractions (including decimals)

## To recognise and show, using diagrams, families of common equivalent fractions

- I can recognise all the equivalent fractions of $a \frac{1}{2}$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $a \frac{1}{4}$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $a \frac{3}{4}$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $a 1 / 3$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $a^{2 / 3}$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $a \frac{1}{8}$ up to and including the denominator 12
- I can recognise all the equivalent fractions of $1 / 5$ up to and including the denominator 20

To count up and down in hundredths

- I can show understanding that $1 / 10$ is 0.1
- I can show understanding that 0.01 is $1 / 100$
- I can recognise that hundredths come from dividing a number or quantity by 100
- I can count up and back in hundredths starting from any hundredth number
- I can count up in hundredths starting from an 'hundredth number'
- I can count back in hundredth to zero
- I can count up in hundredths starting from zero
- I can place hundredths in ascending and descending order

To recognise that hundredths occur when dividing an object by one hundred

- I can divide an object into 100 equal parts
- I can divide a one-digit number by 100
- I can divide a given quantity by 100

To add and subtract fractions with the same denominator

- I can recognise that $1 / 10$ is one part of ten and $1 / 8$ is one part of eighth etc.
- I can work out what to add to a given fraction of the same denominator to make up 1
- I can add two fractions of the same denominator where the answer is less than 1
- I can subtract two fractions with the same denominator
- I can add two fractional values of the same denominator where the answer is greater than 1
- I can answer addition and subtraction of fractional values of the same denominator when presented as a word problem

To recognise and write decimal equivalents of any number of tenths or hundredths

- I can show understanding that $1 / 10$ is equivalent to 0.1
- I can show understanding that $6 / 10$ is equivalent to 0.6 etc.
- I can show understanding that $1 / 100$ is equivalent to 0.01
- I can show understanding that $3 / 100$ is equivalent to 0.03

To recognise and write decimal equivalents to $\frac{1}{4}, \frac{1}{2}, \frac{3}{4}$

- I can show understanding that $\frac{1}{2}$ is equivalent to 0.5
- I can show understanding that $\frac{1}{4}$ is equivalent to 0.25
- I can show understanding that $\frac{3}{4}$ is equivalent to 0.75


## Year 4 - Maths

## Number - Fractions (including decimals)

To find the effect of multiplying a number with up to two decimal places by 10 and 100

- I can recognise that value of each digit in a number that has tens, ones, tenths and hundredths
- I can continue a sequence in tenths and in hundredths
- I can multiple a number with one decimal place by 10
- I can multiply a number with two decimal place by 10
- I can multiple a number with one decimal place by 100
- I can multiply a number with two decimal place by 100
- I can multiply a monetary value by 10 and 100
- I can answer word problems related to multiplying by 10 and 100 when there are decimals involve

To round decimals with one decimal place to the nearest whole number

- I can show confidence when dealing with numbers with tenths and hundredth values
- I can round a number with one decimal place to the nearest whole number
- I can round a number with two decimal places to the nearest whole number
- I can order a set of number with one decimal place giving the smallest number first
- I can order a set of number with two decimal place giving the smallest number first

To compare numbers with the same number of decimal places up to two decimal place

- I can show confidence when dealing with numbers with tenths and hundredth values
- I can compare a number with one decimal place
- I can compare a number with two decimal places


## Measurement

To convert between different units of measure (measurement as appropriate to topic)

- I can show understanding that: $1000 \mathrm{~m}=1 \mathrm{~km} ; 100 \mathrm{~cm}=1 \mathrm{~m} ; 10 \mathrm{~mm}=1 \mathrm{~cm}$
- I can express a distance/weigh/amount of more than ...

To measure and calculate the perimeter of a rectilinear figure (including squares) in cm and $m$.

- I can explain the term 'perimeter'
- I can identify the perimeter if a given shape
- I can use a formula for working out the perimeter of a rectangle when given the dimensions
- I can work out the perimeter of two rectangles placed side by side to create an irregular shape
- I can use my knowledge of perimeter to solve problems related to different shapes

To find the area of rectilinear shapes by counting squares

- I can recognise area measurement because they are measured in squared centimetres or metres
- I can recognise the symbol of squared centimetre or metre $\left(^{2}\right)$
- I can explain the formula for measuring area of a square and the area of a rectangle
- I can explain the relationship between area and perimeter
- I can begin to work out the area of regular shapes

To estimate, compare and calculate different measures, including money in pounds and pence (draw on other success criteria depending on unit of measure)

To read, write and convert time between analogue and digital 12-and 24-hour clocks

- I can explain that you can tell the time using either analogue or digital clocks
- I can read analogue time e.g. 'ten past two'
- I can write analogue time e.g. 'ten past two'
- I can read digital time
- I can write digital time - set out as 2:10
- I can convert between analogue and digital time
- I can recognise that the 24 hour time is set out as 01:30
- I can convert within the 24 hour system e.g. ten past two, 2:10pm and 14:10
- I can confidently convert between analogue, digital and a 24 hour clock

To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days

- I can convert between seconds and minutes
- I can convert between minutes and hours
- I can name the days of the week
- I can recall the order of the days of week
- I can name the months of the year
- I can recall the order the months of the year appear in
- I can recall how many days are in each month
- I can solve problems involving converting time


## Geometry - Shape

To compare and classify geometric shapes

- I can explain what is meant by vertical and horizontal lines
- I can explain what is meant by parallel lines
- I can explain what is meant by a right angles
- I can describe the properties of a given 2D shape by referring to vertical and horizontal lines
- I can describe the properties of a given 2D shape by referring to the sides and angles
- I can recognise vertical, horizontal lines and right angles in and outside the classroom
- I can describe a shape accurately so that someone else can draw it accurately

To identify acute and obtuse angles and compare and order angles up to two right angles by size

- I can describe how to create an angle
- I can name an angle that is a right angle
- I can name an angle that is less than a right angle
- I can name an angle that is greater than a right angle
- I can compare angles and say which is the larger and smaller and order them
- I can recognise acute, obtuse and right angles in different 2D shapes

To identify lines of symmetry in 2D shapes presented in different orientations To complete a simple symmetric figure with respect to a specific line of symmetry

- I can explain what the term symmetry is
- I can show lines of symmetry in an equilateral or isosceles triangles
- I can show lines of symmetry in a square and rectangle
- I can show lines of symmetry in a square and rectangle in different orientations
- I can show understanding about lines of symmetry within a circle
- I can create simple symmetrical figures and show lines of symmetry


## Year 4 - Maths

## Geometry - Position \& Direction

To describe positions on a 2D grid as coordinates in the first quadrant

- I can identify a given square on a grid according to the co-ordinate given
- I can identify a given point on a grid according to the co-ordinate given
- I can plot a shape on a grid and provide the co-ordinates
- I can use symmetry to help plot a shape in a grid
- I can invent a game using co-ordinates on a point or square and make movements accordingly

To describe movements between positions as translations of a given unit to the left/right and up/down

- I can create a grid that has 4 quadrants and plot their co-ordinates
- I can reflect a shapes from one quadrant to the next on a grid with 4 quadrants
- I can rotate a shape from one quadrant to the next on a grid with 4 quadrants
- I can translate a shape from one quadrant to the next on a grid with 4 quadrants

To plot specified points and draw sides to complete given polygon

- I can create a grid that has 4 quadrants and plot their co-ordinates


## Year 4 - Maths

## Statistics

To interpret and present discrete and continuous using bar charts and time graphs

- I can read and interpret a bar chart which has no scales on the axes
- I can 'tell a story' when reading a bar chart
- I can read and interpret a bar chart which has scales on the axes
- I can read and interpret time graphs which have no scales on the axes
- I can 'tell a story' when reading a time graph
- I can read and interpret a time graph which has scales on the axes
- I can collect information and present it as a bar chart
- I can collect information and present it as a time graph

To solve comparison, sum and difference problems

- I can read a bar charts accurately with no scales on the axes
- I can read a bar charts accurately with scales on the axes
- I can read a pictogram accurately with no scales on the axes
- I can read a pictogram accurately with scales on the axes
- I can read a table accurately
- I can answer questions related to sum or difference in relation to bar charts, pictograms or tables
- I can solve problems in relation to bar charts, pictograms or tables

