



Mathematics

Long / Medium Term Planning 2016-2017
Y1 - Y6

Ings Farm Primary School
 Numeracy Curriculum Long Term Planning 2016/2017
 Year 1

| Wk | Term 1a | Wk | Term 1b |
|----|--------------------------|----|---------------------------|
| 1 | Number and place value | 1 | Number and place value |
| 2 | Addition and subtraction | 2 | Number and place value |
| 3 | Addition and subtraction | 3 | Addition and subtraction |
| 4 | Measurement | 4 | Measurement |
| 5 | Properties of shapes | 5 | Measurement |
| 6 | Position and direction | 6 | Catch-up from assessments |

| Wk | Term 2a | Wk | Term 2b |
|----|---------------------------|----|-----------------------------|
| 1 | Addition and subtraction | 1 | Measurement |
| 2 | Addition and subtraction | 2 | Multiplication and division |
| 3 | Number and place value | 3 | Multiplication and division |
| 4 | Measurement | 4 | Number and place value |
| 5 | Properties of shapes | 5 | Addition and subtraction |
| 6 | Catch-up from assessments | 6 | Position and direction |

| Wk | Term 3a | Wk | Term 3b |
|----|-----------------------------|----|----------------------------------|
| 1 | Number and place value | 1 | Number and place value |
| 2 | Multiplication and division | 2 | Properties of shapes |
| 3 | Fractions | 3 | Position and direction/Fractions |
| 4 | Measurement | 4 | Statistics (Year 2) |
| 5 | Measurement | 5 | Statistics (Year 2) |
| 6 | Catch-up from assessments | 6 | Addition and subtraction |

| YEAR 1 | | | | | | | |
|---|---|---|---|--|---|---|------------|
| NUMBER | | | | MEASUREMENT | GEOMETRY | | STATISTICS |
| Number and place value | Addition and subtraction | Multiplication and division | Fractions | | Properties of shapes | Position and direction | |
| <p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.</p> <p>Given a number, identify one more and one less.</p> <p>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.</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p> | <p>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p> <p>Represent and use number bonds and related subtraction facts within 20.</p> <p>Add and subtract one-digit and two-digit numbers to 20, including zero.</p> <p>Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as</p> $7 = \square - 9.$ | <p>Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</p> | <p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p> <p>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</p> | <p>Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"> lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) mass or weight (e.g. heavy/light, heavier than, lighter than) capacity/volume (e.g. full/empty, more than, less than, half, half full, quarter) time (e.g. quicker, slower, earlier, later) <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"> lengths and heights mass/weight capacity and volume time (hours, minutes, seconds) <p>Recognise and know the value of different denominations of coins and notes.</p> <p>Sequence events in chronological order using language (e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening).</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p> | <p>Recognise and name common 2-D and 3-D shapes, including:</p> <ul style="list-style-type: none"> 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres). | <p>Describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p> | |

Ings Farm Primary School
Numeracy Curriculum Long Term Planning 2016/2017
Year 2

| Wk | Term 1a | Wk | Term 1b |
|----|--------------------------|----|---|
| 1 | Number and place value | 1 | Catch-up from assessments |
| 2 | Number and place value | 2 | Position and direction /Measurement (Time) |
| 3 | Addition and subtraction | 3 | Measurement |
| 4 | Properties of shapes | 4 | Fractions |
| 5 | Addition and subtraction | 5 | Multiplication and division |
| 6 | Statistics | 6 | Multiplication and division |

| Wk | Term 2a | Wk | Term 2b |
|----|-----------------------------|----|---|
| 1 | Number and place value | 1 | Measurement |
| 2 | Addition and subtraction | 2 | Position and direction /Measurement (Time) |
| 3 | Measurement | 3 | Properties of shape |
| 4 | Statistics | 4 | Multiplication and division |
| 5 | Multiplication and division | 5 | Multiplication and division |
| 6 | Catch-up from assessments | 6 | Multiplication and division |

| Wk | Term 3a | Wk | Term 3b |
|----|--------------------------|----|-----------------------------|
| 1 | Number and place value | 1 | Number and place value |
| 2 | Addition and subtraction | 2 | Properties of shapes |
| 3 | SAT's weeks | 3 | Fractions |
| 4 | mixed 'fun' questions | 4 | Multiplication and division |
| 5 | | 5 | Number and place value |
| 6 | Statistics | 6 | Measurement |

| YEAR 2 | | | | | | | |
|---|---|--|---|--|--|--|---|
| NUMBER | | | | MEASUREMENT | GEOMETRY | | STATISTICS |
| Number and place value | Addition and subtraction | Multiplication and division | Fractions | | Properties of shapes | Position and direction | |
| <p>Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward.</p> <p>Recognise the place value of each digit in a two-digit number (tens, ones).</p> <p>Identify, represent and estimate numbers using different representations, including the number line.</p> <p>Compare and order numbers from 0 up to 100; use <, > and = signs.</p> <p>Read and write numbers to at least 100 in numerals and in words.</p> <p>Use place value and number facts to solve problems.</p> | <p>Solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods <p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ul style="list-style-type: none"> a two-digit number and ones a two-digit number and tens two two-digit numbers adding three one-digit numbers <p>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</p> <p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</p> | <p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs.</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</p> | <p>Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity.</p> <p>Write simple fractions e.g. $\frac{1}{2}$ of $6 = 3$ and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.</p> | <p>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.</p> <p>Compare and order lengths, mass, volume/capacity and record the results using >, < and = .</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money.</p> <p>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p> <p>Compare and sequence intervals of time.</p> <p>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.</p> <p>Know the number of minutes in an hour and the number of hours in a day.</p> | <p>Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line.</p> <p>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</p> <p>Identify 2-D shapes on the surface of 3-D shapes (e.g. a circle on a cylinder and a triangle on a pyramid).</p> <p>Compare and sort common 2-D and 3-D shapes and everyday objects.</p> | <p>Order and arrange combinations of mathematical objects in patterns and sequences.</p> <p>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).</p> | <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and comparing categorical data.</p> |

Ings Farm Primary School
 Numeracy Curriculum Long Term Planning 2016/2017
 Year 3

| Wk | Term 1a | Wk | Term 1b |
|----|-----------------------------|----|-----------------------------|
| 1 | Number and place value | 1 | Measurement |
| 2 | Number and place value | 2 | Fractions |
| 3 | Addition and subtraction | 3 | Measurement |
| 4 | Multiplication and division | 4 | Addition and subtraction |
| 5 | Properties of shape | 5 | Multiplication and division |
| 6 | Catch-up from assessments | 6 | Statistics |

| Wk | Term 2a | Wk | Term 2b |
|----|--|----|-----------------------------|
| 1 | Number and place value | 1 | Addition and subtraction |
| 2 | Addition and subtraction Multiplication and division (Missing numbers) | 2 | Measurement (Time) |
| 3 | Fractions | 3 | Multiplication and division |
| 4 | Properties of shape | 4 | Multiplication and division |
| 5 | Statistics | 5 | Fractions |
| 6 | Catch-up from assessments | 6 | Measurement |

| Wk | Term 3a | Wk | Term 3b |
|----|-------------------------------------|----|---|
| 1 | Addition and subtraction | 1 | Number and place value |
| 2 | Multiplication and division | 2 | Measurement |
| 3 | Statistics (reading scaled charts) | 3 | Properties of shape |
| 4 | Measurements | 4 | Fractions |
| 5 | Fractions | 5 | Addition and subtraction Multiplication and division |
| 6 | Catch-up from assessments | 6 | Statistics |

| YEAR 3 | | | | | | | |
|---|--|---|--|---|--|---|------------|
| NUMBER | | | | MEASUREMENT | GEOMETRY | | STATISTICS |
| Number and place value | Addition and subtraction | Multiplication and division | Fractions | | Properties of shapes | Position and direction | |
| <p>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.</p> <p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</p> <p>Compare and order numbers up to 1000.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Read and write numbers up to 1000 in numerals and in words.</p> <p>Solve number problems and practical problems involving these ideas.</p> | <p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> a three-digit number and ones a three-digit number and tens a three-digit number and hundreds. <p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> | <p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p> <p>Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</p> <p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> | <p>Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</p> <p>Recognise and show, using diagrams, equivalent fractions with small denominators.</p> <p>Add and subtract fractions with the same denominator within one whole (e.g. $5/7 + 1/7 = 6/7$)</p> <p>Compare and order unit fractions, and fractions with the same denominators.</p> <p>Solve problems that involve all of the above.</p> | <p>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</p> <p>Measure the perimeter of simple 2-D shapes.</p> <p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p> <p>Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</p> <p>Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.</p> <p>Know the number of seconds in a minute and the number of days in each month, year and leap year.</p> <p>Compare durations of events (e.g. to calculate the time taken by particular events or tasks).</p> | <p>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.</p> <p>Recognise angles as a property of shape or a description of a turn.</p> <p>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.</p> <p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p> | <p>Interpret and present data using bar charts, pictograms and tables.</p> <p>Solve one-step and two-step questions (e.g. 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.</p> | |

Ings Farm Primary School
Numeracy Curriculum Long Term Planning 2016/2017
Year 4

| Wk | Term 1a | Wk | Term 1b |
|----|---------------------------------|----|-----------------------------|
| 1 | Number and place value | 1 | Measurement (time) |
| 2 | Addition and subtraction | 2 | Addition and subtraction |
| 3 | Properties of shape | 3 | Multiplication and division |
| 4 | Measurement (money) | 4 | Multiplication and division |
| 5 | Measurement (units of measure) | 5 | Fractions |
| 6 | Catch-up from assessments | 6 | Statistics |

| Wk | Term 2a | Wk | Term 2b |
|----|---------------------------|----|-----------------------------------|
| 1 | Number and place value | 1 | Multiplication and division |
| 2 | Addition and subtraction | 2 | Multiplication and division |
| 3 | Fractions | 3 | Measurement (Area and Perimeter) |
| 4 | Addition and subtraction | 4 | Fractions |
| 5 | Position and direction | 5 | Properties of shape |
| 6 | Catch-up from assessments | 6 | Statistics |

| Wk | Term 3a | Wk | Term 3b |
|----|---------------------------|----|--------------------------------|
| 1 | Number and place value | 1 | Number and place value |
| 2 | Position and direction | 2 | Measurement (Time) |
| 3 | Fractions | 3 | Fractions |
| 4 | Fractions | 4 | Multiplication and division |
| 5 | Position and direction | 5 | Properties of shape (Symmetry) |
| 6 | Catch-up from assessments | 6 | Statistics |

YEAR 4

| NUMBER | | | | MEASUREMENT | GEOMETRY | | STATISTICS |
|--|---|---|--|--|---|---|---|
| Number and place value | Addition and subtraction | Multiplication and division | Fractions (including decimals) | | Geometry: Properties of shapes | Geometry: Position and direction | |
| <p>Count in multiples of 6, 7, 9, 25 and 1000.</p> <p>Find 1000 more or less than a given number.</p> <p>Count backwards through zero to include negative numbers.</p> <p>Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</p> <p>Order and compare numbers beyond 1000.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Round any number to the nearest 10, 100 or 1000.</p> <p>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</p> <p>Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</p> | <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</p> <p>Estimate and use inverse operations to check answers to a calculation.</p> <p>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</p> | <p>Recall multiplication and division facts for multiplication tables up to 12×12.</p> <p>Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p> <p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</p> <p>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</p> | <p>Recognise and show, using diagrams, families of common equivalent fractions.</p> <p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</p> <p>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</p> <p>Add and subtract fractions with the same denominator.</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.</p> <p>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</p> <p>Round decimals with one decimal place to the nearest whole number.</p> <p>Compare numbers with the same number of decimal places up to two decimal places.</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p> | <p>Convert between different units of measure (e.g. kilometre to metre; hour to minute).</p> <p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> <p>Find the area of rectilinear shapes by counting squares.</p> <p>Estimate, compare and calculate different measures, including money in pounds and pence.</p> <p>Read, write and convert time between analogue and digital 12 and 24-hour clocks.</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p> | <p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <p>Identify lines of symmetry in 2-D shapes presented in different orientations.</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p> | <p>Describe positions on a 2-D grid as coordinates in the first quadrant.</p> <p>Describe movements between positions as translations of a given unit to the left/right and up/down.</p> <p>Plot specified points and draw sides to complete a given polygon.</p> | <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p> |

Ings Farm Primary School
Numeracy Curriculum Long Term Planning 2016/2017
Year 5

| Wk | Term 1a | Wk | Term 1b |
|----|-----------------------------|----|-----------------------------------|
| 1 | Addition and subtraction | 1 | Properties of shape |
| 2 | Addition and subtraction | 2 | Statistics |
| 3 | Multiplication and division | 3 | Measurements (convert units) |
| 4 | Multiplication and division | 4 | Statistics (time tables) |
| 5 | Number and place value | 5 | Measurements (area and perimeter) |
| 6 | Catch-up from assessments | 6 | Measurement |

| Wk | Term 2a | Wk | Term 2b |
|----|---|----|---|
| 1 | Multiplication and division (prime squared etc) | 1 | Properties of shape |
| 2 | Position and direction | 2 | Statistics |
| 3 | Multiplication and division | 3 | Number and place value (negative numbers) |
| 4 | Fractions | 4 | Measurement (angles) |
| 5 | Fractions | 5 | Fractions |
| 6 | Catch-up from assessments | 6 | Multiplication and division (scaling) |

| Wk | Term 3a | Wk | Term 3b |
|----|-----------------------------|----|---|
| 1 | Fractions | 1 | Properties of shape |
| 2 | Fractions | 2 | Measurement |
| 3 | Addition and subtraction | 3 | Measurement |
| 4 | Multiplication and division | 4 | Position and direction |
| 5 | Statistics | 5 | Measurement |
| 6 | Catch-up from assessments | 6 | Addition and subtraction Multiplication and division |

| YEAR 5 | | | | | | | |
|---|--|--|---|--|--|---|--|
| NUMBER | | | | MEASUREMENT | GEOMETRY | | STATISTICS |
| Number and place value | Addition and subtraction | Multiplication and division | Fractions (including decimals and percentages) | | Properties of shapes | Position and direction | |
| <p>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.</p> <p>Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p> <p>Solve number problems and practical problems that involve all of the above.</p> <p>Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p> | <p>Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</p> <p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> | <p>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</p> <p>Establish whether a number up to 100 is prime and recall prime numbers up to 19.</p> <p>Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.</p> <p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</p> <p>Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</p> | <p>Compare and order fractions whose denominators are all multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>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. $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$)</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p> <p>Read and write decimal numbers as fractions (e.g. $0.71 = 71/100$)</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Round decimals with two decimal places to the nearest whole number and to one decimal place.</p> <p>Read, write, order and compare numbers with up to three decimal places.</p> <p>Solve problems involving number up to three decimal places.</p> <p>Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100, and as a decimal.</p> <p>Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.</p> | <p>Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</p> <p>Calculate and compare the area rectangles (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.</p> <p>Estimate volume (e.g. using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)</p> <p>Solve problems involving converting between units of time.</p> <p>Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.</p> | <p>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</p> <p>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</p> <p>Draw given angles, and measure them in degrees ($^\circ$)</p> <p>Identify:</p> <ul style="list-style-type: none"> angles at a point and one whole turn (total 360°) angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) other multiples of 90° <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> | <p>Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.</p> | <p>Solve comparison, sum and difference problems using information presented in a line graph.</p> <p>Complete, read and interpret information in tables, including timetables.</p> |

Ings Farm Primary School
Numeracy Curriculum Long Term Planning 2016/2017
Year 6

| Wk | Term 1a | Wk | Term 1b |
|----|--|----|---|
| 1 | Number and place value | 1 | Addition, subtraction, multiplication and division |
| 2 | Addition, subtraction, multiplication and division | 2 | Properties of shape |
| 3 | Residential visit | 3 | Fractions |
| 4 | Properties of shape | 4 | Primary maths Challenge HA Revision work MA and LA |
| 5 | Measurement | 5 | Fractions |
| 6 | Catch-up from assessments | 6 | Ratio and proportion |

| Wk | Term 2a | Wk | Term 2b (Revision to meet the needs of the children in each group) |
|----|--------------------------------------|----|---|
| 1 | Position and direction | 1 | |
| 2 | Catch-up from assessments | 2 | |
| 3 | Statistics (averages) | 3 | |
| 4 | Measurement | 4 | |
| 5 | Statistics (pie charts/line graphs) | 5 | |
| 6 | Algebra | 6 | |

| Wk | Term 3a | Wk | Term 3b |
|----|--------------------------|----|---|
| 1 | Further Revision | 1 | Mathletics and Schofield and Simms – weekly |
| 2 | SAT Tests | 2 | |
| 3 | | 3 | |
| 4 | Mathletics and Schofield | 4 | |
| 5 | and Simms – weekly | 5 | |
| 6 | | 6 | |

| NUMBER | | | RATIO and PROPORTION | ALGEBRA | MEASUREMENT | GEOMETRY | | STATISTICS |
|--|--|--|--|---|--|---|--|---|
| Number and place value | Addition, subtraction, multiplication and division | Fractions (including decimals and percentages) | | | | Properties of shapes | Position and direction | |
| <p>Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.</p> <p>Round any whole number to a required degree of accuracy.</p> <p>Use negative numbers in context, and calculate intervals across zero.</p> <p>Solve number and practical problems that involve all of the above.</p> | <p>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</p> <p>Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.</p> <p>Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.</p> <p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Identify common factors, common multiples and prime numbers.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Solve problems involving addition, subtraction, multiplication and division.</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</p> | <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>Compare and order fractions, including fractions >1.</p> <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$).</p> <p>Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$)</p> <p>Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$).</p> <p>Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places.</p> <p>Multiply one-digit numbers with up to two decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to two decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p> | <p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>Solve problems involving the calculation of percentages (e.g. of measures, and such as 15% of 360) and the use of percentages for comparison.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p> | <p>Use simple formulae.</p> <p>Generate and describe linear number sequences.</p> <p>Express missing number problems algebraically.</p> <p>Find pairs of numbers that satisfy number sentences involving two unknowns.</p> <p>Enumerate all possibilities of combinations of two variables.</p> | <p>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</p> <p>Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.</p> <p>Convert between miles and kilometres.</p> <p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes.</p> <p>Calculate the area of parallelograms and triangles.</p> <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (e.g. mm^3 and km^3).</p> | <p>Draw 2-D shapes using given dimensions and angles.</p> <p>Recognise, describe and build simple 3-D shapes, including making nets.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</p> <p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p> | <p>Describe positions on the full coordinate grid (all four quadrants).</p> <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p> | <p>Interpret and construct pie charts and line graphs and use these to solve problems.</p> <p>Calculate and interpret the mean as an average.</p> |