# Year R Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
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| AUTUMN term 1 | Home visits | To count reliably (from 0-20) ***NPV***<br>To count objects to 10, and beginning to count beyond 10 *(Can count in a line)* ***NPV*** | To use one to one correspondence (touch each object and give it a number 0-20) ***NPV***<br>Uses positional language (below, above, next to, beside, in front, behind and on top) ***GP*** | To count actions or objects which cannot be moved. ***NPV*** | To count objects in a group/ irregular arrangement of up to ten objects (same group/different group). ***NPV*** | To represent numbers using fingers, marks on paper or pictures. ***NPV***<br>To recognise numerals. (0 to 5, 0-10 & 0-20) ***NPV*** | To order numbers to 20. ***NPV*** |
| AUTUMN term 2 | To write numbers to 20. ***NPV*** | To find/ say the number which is one more or one less than a given number. ***A & S***<br><br>Describes their relative position such as 'behind' or 'next to'. | Relates addition to combining two groups. ***A*** | Relates subtraction to taking away. ***S*** | To find **one more** or **one less** from a group of up to five objects, then ten objects. ***A & S*** | Selects the correct numeral to represent 1 to 5, then 1 to 10 objects.<br>To set out groups and find the total amount. ***Mx*** | Uses mathematical terms to describe 2d shapes. ***GS*** |
| SPRING term 1 | To estimate how many objects they can see and check by counting. ***NPV***<br><br>**They recognise, create and describe patterns.**<br>To count patterns**.** ***Mx*** | To recognise the number of objects in a small group without counting out (subitise). ***NPV***<br><br>Orders two or three items by length or height. ***M*** | Uses quantities and objects, to add two single-digit numbers and **count on** to find the answer. ***A*** | To count on when adding to a group (holding first number in head) ***A*** | To add two sets of objects which are the same (cars + cars) then different (apples + bananas) ***A***<br><br>Orders two items by mass. (using everyday language) ***M*** | **Uses everyday language to solve problems. *M***<br><br>Increase one quantity by a given amount to find the total (augmentation) ***A*** | |
| SPRING term 2 | To use quantities and objects, to subtract two single-digit numbers (count on or back) to find the answer. ***S***<br><br>To count backwards.(on a number line or counting stick.) | To recognise and name +, =, - signs. ***A & S***<br><br>To read an addition number sentence. ***A***<br><br>To solve an addition number sentence. ***A*** | To recognise and name +, =, - signs. ***A & S***<br><br>To read a subtraction sentence. ***S***<br><br>To solve a subtraction number sentence. ***S*** | To share objects equally. ***D***<br><br>To group objects. ***D*** | Orders two items by capacity. (using everyday language) ***M***<br><br>**Uses everyday language to compare quantities & objects. *M***<br><br>**Uses everyday language to talk** | Orders and sequences familiar events. ***M***<br><br>**Uses everyday language related to time (begins to identify o'clock) *M*** | |

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| | ***S*** | | | | **about distance.** ***M*** | | |
| SUMMER term 1 | To skip count in 2s, 5s & 10s. ***Mx***<br><br>To make 5 and 10 (feel the tenness of ten). ***NPV*** | To skip count in 2s, 5s & 10s. ***Mx***<br><br>To arrange an addition number sentence. ***A&S***<br><br>To arrange a subtraction number sentence. ***S*** | To skip count in 2s, 5s & 10s. ***Mx***<br><br>To halve (an even group up to 12) ***S & D***<br>To solve problems involving grouping and sharing. ***F*** | To skip count in 2s, 5s & 10s. ***Mx***<br><br>To share an even group of objects between 2, between 4. ***D & F*** | To skip count in 2s, 5s & 10s. ***Mx***<br><br>Begin to understand odd and even. ***Mx & D***<br><br>To count up to 20 (objects/ images in an array) ***D*** | To skip count in 2s, 5s & 10s. ***Mx***<br><br>**Uses everyday language to talk about money. *M***<br><br>Demonstrates understanding that £1 has greater value than pennies. ***M*** | |
| SUMMER term 2 | Shares an even group of objects between 4. **D** | To know number families to 5, 6 & 10. ***A & S*** | To know doubles to 10. ***A***<br>Begin to relate the addition of dobles to counting on (how many wheels on 2 cars? 4… 5,6,7,8 4+4=8) ***Mx*** | To identify half a group of objects. ***F*** | Know and name different coins – 1p, 2p, 5p. 10p, 20p, 50p, £1 & $2. ***M***<br>Can use 1p, 2p, 5p & 10p coins to make amounts up to 20p. ***M*** | To identify half a shape. ***F***<br>To put together halves to make whole shapes. ***F***<br>To break an object in half. ***F*** | Uses mathematical terms to describe 3d shapes. ***GS*** |

# Year 1 Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
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| Term 1 | **Number and place value**<br>COUNTING RELIABLY – not on PAM<br>To identify one more and one less.<br>To compare quantities (using equal to, more than, less than (fewer), most, least)<br>To match numbers and quantities.<br>**CG -**<br>**Given a number, identify one more and one less with numbers up to 20**<br>**Use the language of: equal to, more than, less than (fewer), most, least**<br>**Use 1 to 1 correspondence to count sets of at least 20 reliably** | **Number and place value**<br>To locate numbers on a number line.<br>To read & write numbers from 1-20 in numerals and words.<br>To identify odd and even numbers.<br>**CG –**<br>**Identify and represent numbers to at least 20 using objects and pictorial representations including the number line**<br>**Use number names in order to at least 20**<br>**Read and write numbers from 1 to 10 progressing to 20 in numerals**<br>**Read and write numbers from 1 to 10 progressing to 20 in words (not necessarily spelt correctly)**<br>**Recognise even numbers up to 10**<br>**Recognise odd and even numbers to 20** | **Addition**<br>To add with number bonds within 10<br>To know all number bonds to 10<br>**CG -**<br>**Recall and use addition and subtraction facts for all numbers up to 5 and some facts to 10**<br>**Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs**<br>**Add and subtract numbers mentally including 2 single digit numbers, a number up to 20 and 1's**<br>**Add and subtract one-digit and two-digit numbers to 20, including zero** | **Addition**<br>To investigate all possible sets of two numbers to make a given number.<br>To partition numbers into part, part, whole<br>**CG –**<br>**Recall and use addition and subtraction facts for all numbers up to 5 and some facts to 10**<br>**Represent and use number bonds and related subtraction facts within 20**<br>**Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs**<br>**Add and subtract numbers mentally including 2 single digit numbers, a number up to 20 and 1's**<br>**Add and subtract one-digit and two-digit numbers to 20, including zero** | Subtraction<br>To break numbers into parts<br>To subtract with number bonds<br>**CG –**<br>**Recall and use addition and subtraction facts for all numbers up to 5 and some facts to 10**<br>**Represent and use number bonds and related subtraction facts within 20**<br>**Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs**<br>**Add and subtract numbers mentally including 2 single digit numbers, a number up to 20 and 1's**<br>**Add and subtract one-digit and two-digit numbers to 20, including zero** | Subtraction<br>To subtract by taking away.<br>To subtract by counting on<br>To subtract small numbers where sets are hidden (counting on)<br>**CG –**<br>**Recall and use addition and subtraction facts for all numbers up to 5 and some facts to 10**<br>**Represent and use number bonds and related subtraction facts within 20**<br>**Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs**<br>**Add and subtract numbers mentally including 2 single digit numbers, a number up to 20 and 1's**<br>**Add and subtract one-digit and two-digit numbers to 20, including zero** | |
| Term 2 | Number and place value<br>To understand ordinal numbers.<br>To compare numbers up to 20 (and beyond).<br>To describe and extend number sequences.<br>**CG -**<br>**Respond to and use terms such as first, second and third** | Measure – money<br>To recognise and know the value of different coins and notes<br>To exchange money<br>To solve problems involving money (making amounts in different ways)<br>**CG -**<br>**Recognise and know the value of different denominations of coins and notes**<br>**1p,2p,5p,10p,20p,£1 and £2** | Addition/subtraction (money) | Measure – length<br>To compare and order length<br>To measure using a starting line<br>To measure in non standard units<br>**CG –**<br>**Solve simple measure problems in a practical context using direct comparison and non standard units**<br>**Measure and begin to record – lengths and height** | Addition/subtraction (length) | Geometry – properties of shapes<br>Recognise and name common 2-D shapes (rectangles (including squares, circles and triangles)<br>Recognise and name 3-D shapes.<br>To recognise shapes in different orientations and sizes.<br>To make models, patterns and pictures | Statistics<br>**CG -**<br>**Begin to group objects into sets according to simple properties**<br>**Answer simple questions by counting the number of objects in a category**<br>**Interpret and construct simple pictograms (where the picture is worth 1** |

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| | **Begin to use place value to order numbers**<br>Order numbers 1 to 20 in ascending and descending order | **Combine amounts to make small values** | | | | using construction kits and everyday material.<br>To identify shapes in the environment.<br>To identify and make patterns.<br>**CG - Recognise and name common 2-D and 3-D shapes, including:**<br>**2-D shapes [for example, rectangles (including squares), circles, pentagons, hexagons and triangles]**<br>**3-D shapes [for example, cuboids (including cubes, pyramids, cones and spheres]**<br>**Sort shapes based on simple properties**<br>Solve simple problems involving shapes | **unit)), tally charts and block diagrams** |
| Term 3 | Measure –Time<br>To sequence events in chronological order<br>To tell the time to the hour<br>To tell the time to the half an hour<br>**CG –**<br>**Sequence events in chronological order using language [for example,**<br>**before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]**<br>**Recognise and use language relating to dates, including days of the week, months and years**<br>**Know there are 7 days in the week**<br>**Know the name of the day before**<br>**measure and begin to record time** | Number and place value<br>To make ten.<br>To regroup (carry out a fair swap).<br>To make ten and count on (in concrete)<br>To identify ten and count on (in pictorial).<br>CG - **Recall and use addition and subtraction facts for all numbers up to 5 and some facts to 10** | Addition and subtraction<br>To use a number line to count on.<br>To use a number line to count back.<br>To subtract by counting back<br>To use inverse(write corresponding subtraction facts to given addition facts – number families)<br>**CG -**<br>**Solve missing addition and subtraction problems involving single digit numbers** | Measure – Capacity and mass<br>To compare and order mass<br>To weigh mass in non standard units<br>To compare and order capacity and volume<br>**CG – Measure and begin to record volume/capacity**<br>**Solve simple measure problems in a practical context using direct comparison and non standard units** | Addition and subtraction (capacity and mass) | | |

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| | **Tell the time to the hour and half past the hour and draw the hands on a clock face to show o'clock and half past** | | | | | | |
| Term 4 | Addition and subtraction<br>To solve one step word problems using the part whole or adding on concept<br>**CG -**<br>**Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations** | Geometry – position and direction<br>To describe position, direction and movement including back forward.<br>To identify left and right.<br>To use prepositional language.<br>To give directions<br>To make turns in both directions.<br>To link turns with the hands on a clock<br>**CG -**<br>**Respond to and use terms such as first, second and third**<br>**Describe position, direction and movement, including whole, half, quarter and three- quarter turns**<br>**Solve simple problems involving position and direction** | Addition<br>To add with number bonds to 20<br>To add two 1 digit numbers using the make 10 strategy<br>To add 1 digit and a 2 digit number using the regrouping into tens and ones strategy<br>**CG - Represent and use number bonds and related subtraction facts within 20** | Multiplication<br>To place into equal groups<br>To double numbers<br>To double two digit numbers<br>**CG- Recall and use doubling and halving facts for numbers up to double 5** | Division<br>To solve division problems by sharing equally ( up to 20 then beyond)<br>To solve division problems by finding the number of groups (up to 20 then beyond) | Fractions<br>To recognise half an object (as one of two equal parts)<br>To recognise a quarter of an object (as one of two equal parts)<br>To recognise half a shape (as one of two equal parts)<br>To recognise a quarter of a shape (as one of two equal parts)<br>To identify half a quantity (to share equally between 2<br>To place fractions on a number line.<br>To identify halves (use Cuisenaire rods)<br>**CG –**<br>**Recognise, find and name a half as one of two equal parts of an object or shape**<br>**Recognise and find half of a moveable small set of objects or a quantity**<br>**Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity**<br>**Begin to solve simple problems involving fractions** | |
| Term 5 | Measure – Time | Geometry – properties of shapes | Number and place value<br>To count out a 2 digit number to 20 and regroup in the 1s.<br>To partition and recombine numbers to 20 into 10s and 1s (teen numbers).<br>To partition and recombine any 2 digit number into 10s and 1s. | Measure – Money | **Addition and subtraction**<br>To subtract within 20 by grouping into tens and ones<br>To make a family of number sentences<br>To use inverse (write corresponding subtraction facts to given addition facts **– number families)** | **Addition and subtraction**<br>To solve missing number problems<br>To solve one step word problems using part whole method<br>**CG -**<br>**Solve one-step problems that involve** | |

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| | | | | | | **addition and subtraction, using concrete objects and pictorial representations** | |
| Term 6 | Addition and subtraction | Addition and subtraction | Multiplication<br>To place objects into arrays<br>Can describe an array in two ways<br>To pictorially represent multiplication sentences<br>**CG - Count in 10's from zero to answer questions involving multiplication facts for the 10x table** | Multiplication<br>To understand repeated addition<br>To make multiplication stories<br>To move towards the bar model to solve word problems<br>**CG - Solve one-step problems involving multiplication and division, (grouping and sharing)by calculating the answer using concrete objects, pictorial representations and arrays** | Division<br>To relate grouping to repeated subtraction<br>Use arrays to help solve division problems<br>To know the link between multiplication and division<br>To solve one step word problems<br>To use reasoning to explain<br>**CG - Solve one-step problems involving multiplication and division, (grouping and sharing)by calculating the answer using concrete objects, pictorial representations and arrays** | Fractions<br>**CG - Begin to solve simple problems involving fractions** | Statistics |

**MOS – compass grids**

Count to at least 20 forwards and backwards
Count to 100, beginning with 0 or 1, or from any given number
Count to and across 100 forwards and backwards
Count in steps of 10
Begin to count in 10s from any number
Count in multiples of twos, fives and tens
Begin to use place value to order numbers
Use the number facts they know to solve problems

# Year 2 Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
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| Term 1 | Number and place value<br>To represent 2 digit numbers (concrete)<br>To count within 100 by making tens first.<br>To recognise the place value of each digit in a 2 digit number.<br>To compare numbers from 0 – 100.<br>To order numbers from 0-100. | Number and place value<br>To partition and recombine 2 digit numbers into 10s and 1s.<br>To partition and recombine 3 digit numbers into 100s, 10s and 1s.<br>To partition numbers in different ways. | Addition/subtraction<br>To use the counting on strategy (with number line, Dienes or mentally)<br>To use making ten strategy to add (see y1 progression)<br>To use partitioning to add | Addition/subtraction<br>To add a two digit number and tens<br>To add a two digit number and ones without regrouping<br>To add 2 two-digit numbers without regrouping<br>To regroup and rename | Addition/subtraction<br>To break numbers into parts<br>To use the number bond strategy to subtract<br>To subtract a one digit number from a two digit number without regrouping<br>To subtract 2 two-digit numbers without regrouping | Measure – Time<br>To compare and sequence intervals of time.<br>To tell and write the time to quarter past/to and five minutes. | |
| Term 2 | Geometry – properties of shape<br>To identify and describe the properties of 2-D shapes.<br>To identify the line symmetry in a 2-D shape. | Multiplication<br>To identify odd and even numbers<br>To understand multiplication as repeated addition<br>To use arrays | Division<br>To use number bonds for factor and products (using multiples of 2, 5 and 10)<br>To identify missing factors<br>To use concrete apparatus to solve division problems (sharing)<br>To use concrete apparatus to solve division problems (grouping)<br>20÷5=4)<br>To know whether to round up or down depending on context. | Fractions<br>To divide shapes into equal parts.<br>To know that<br>and<br>is equal to a whole.<br>To identify fractions of a shape. (using halves, thirds and quarters)<br>To identify all the different ways to make<br>To recognise<br>of a length, shape and object. | Statistics<br>To replace accordingly with pictograms/tally charts/block diagrams/simple tables<br>To interpret _____<br>To count the number of objects in each category and sort the categories by quantity,<br>To compare categorical data<br>To construct a<br>_____<br>To make pictograms and graphs where one symbol represents more than one unit. | Measure – money<br>To recognise and use coins and notes and compare amounts.<br>To select different combinations of coins to make a particular value.<br>To calculate giving change up to and including £1.00.<br>To exchange pence for pounds. | Addition and subtraction – money<br>To solve problems for money with addition and subtraction |
| Term 3 | Number and place value<br>Identify numbers on a number line.<br>To use the greater than, less than and equals signs (<,>, =)<br>To begin to round numbers less than 100 to the nearest 10.<br>Read and write numbers in numerals and words. | Addition/subtraction<br>To add three one-digit numbers<br>To add numbers with regrouping (in ones)<br>To add numbers with regrouping (in tens.)<br>Use the inverse to solve missing number problems<br>To solve one step word problems using 'part, whole' and adding on. | Addition/subtraction<br>To use the counting backwards strategy to subtract<br>Use the 'take away' strategy to subtract<br>To subtract a one digit number from a two digit number with regrouping<br>To subtract 2 two-digit numbers with regrouping<br>To solve one step word problems using 'part, whole' | Multiplication/division To know 2, 5, 10 times tables.<br>To multiply using partitioning<br>To understand the commutative property of multiplication.<br>To interpret multiplication sentences (The first factor referring to the number of groups and the second factor as the number of items in each group.) | Multiplication/division<br>To divide with remainders (in concrete)<br>To use pictorial representations to solve division problems (sharing)<br>To use pictorial representations to solve division problems (grouping)<br>To know all corresponding multiplication and division facts (i.e. 2x4= 8, 4x2= 8 and 8÷4 =2, 8÷2=4) | Measure – Time<br>To tell and write the time to quarter past/to and five minutes. | |
| Term 4 | Measure – Length<br>To measure and compare lengths and heights in metres (> < =) . | Addition and subtraction – length context<br>To solve length problems using the four operations . | Multiplication and division – length context<br>To solve length problems using the four operations . | Fractions<br>To identify fractions of a length. (using halves, thirds and quarters) | Geometry – position and direction<br>To order and arrange objects in patterns and sequences. | | |

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| | To measure and compare lengths and heights in centimetres. | | To break a number into factors<br>To connect the 10 times table with place value<br>To use arrays to help solve division problems | To identify fractions of a set of objects by sharing equally. (between two, three and four)<br>To identify fractions of a quantity. (using halves, thirds and quarters) | To describe the position of objects.<br>To give directions. | | |
| Term 5 | Geometry – properties of shape<br>To identify and describe properties of a 3-D shape (edges, vertices and faces)<br>To identify 2-D shapes on the surface of 3-D shapes.<br>To compare and sort common 2-D and 3-D shapes and everyday objects. | Number and place value | Measure – capacity and mass<br>To measure and compare masses in kilograms (> < =) .<br>To measure and compare masses in grams (> < =) .<br>To measure and compare temperature (> <=).<br>To measure and compare volume (> < =) . | Addition and subtraction – mass and capacity context<br>To solve mass problems using the four operations. | Multiplication and division - mass and capacity context<br>To solve mass problems using the four operations. | Measure – time | |
| Term 6 | Measure – length<br>To measure and compare lengths and heights in metres (> < =) .<br>To measure and compare lengths and heights in centimetres. | Four operations – context measure<br>To solve length, mass, capacity questions using 4 operations | Four operations – context money<br>To solve money questions using 4 operations | Fractions<br>To recognise equivalent fractions.<br>To place fractions on a number line<br>To count in fractions<br>To use the bar model to show fractions | Statistics<br>To read and interpret a simple key<br>To ask and answer questions about categorical data.<br>To read the scale on a graph.<br>To sort objects using more than one criteria (Carroll diagrams)<br>To sort objects using more than one criteria (Venn diagrams) | Geometry – position and direction<br>To describe and control movement.<br>To describe movement in terms of right angles for turns.<br>To programme robots to turn. | Four operations – context measure |

Throughout (and when children are ready): To use the bar model to represent word problems, Problem solving (4 types)

# Year 3 Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
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| Term 1 | *Number and place value*<br>To represent 3 digit numbers (concrete)<br>To find 1, 10 or 100 more than a given number (concrete).<br>To recognise the place value of each digit in a three digit number. | *Addition/subtraction*<br>To use partitioning to add<br>To use a number line for addition To solve missing number problems To add a three digit number and ones without regrouping (see progression year2) | *Addition/subtraction* To find the difference using a number line (for near numbers)<br>To use number bonds to subtract mentally (see mental strategies below for progression and next page for exemplification)<br>To subtract without regrouping (see year 2) | *Multiplication*<br>To use number bonds for factors and products<br>To understand how place value changes when multiplying by 10<br>To calculate two digit numbers multiplied by one digit numbers | *Division*<br>To use number bonds for factor and products (using multiples of 3,4 and 8) To identify missing factors<br>To derive related division facts from known multiplication facts<br>To use the distributive property strategy to divide 'friendly' numbers. | *Measure – Time*<br>Tell and write the time from an analogue clock (standard clock and with Roman numerals).<br>To match digital and analogue clocks. | |
| Term 2 | *Fractions, decimals and percentages* To identify unit fractions of objects, shapes and length. (a unit fraction has 1 as the numerator)<br>To identify non-unit fractions of objects, shapes and length. (a non-unit fraction has >1 as the numerator)<br>To calculate fractions of a quantity | *Fractions, decimals and percentages*<br>To recognise equivalent fractions To recognise that tenths arise from dividing an object into ten equal parts | *Geometry*<br>To draw and describe 2-D shapes (reflective symmetry, regular, irregular)<br>To make 3-D shapes using modelling materials.<br>To recognise 3-D shapes in different orientations. | *Statistics*<br>To interpret and present data using bar charts<br>To interpret and present data using pictograms<br>To interpret and present data using tables | *Measure – volume and capacity*<br>To measure and compare volume in l/ml. | *Measure – length and mass*<br>To measure and compare lengths in m, cm and mm.<br>To measure and compare mass in Kg and g. | *Four operations* To use multiplication and division to scale by integers. To solve measurement problems using both addition and subtraction. |
| Term 3 | *Number and place values –*<br>To use part, part whole to partition numbers in different ways. To compare numbers up to 1000<br>To order numbers up to 1000 | *Geometry –*<br>To measure and calculate perimeter of 2D shapes..<br>To recognise angles as a property of shape.<br>To identify angles in the environment.<br>To recognise angles as a description of a turn. (half turn, three quarters turn, 360')<br>To identify right angles, linking to turns and identifying >< = right angles. (acute, obtuse) | *Fractions, decimals and percentages –*<br>To compare fractions (fractions with the same denominator)<br>To order fractions (fractions with the same denominator) To compare fractions with different denominators | *Fractions, decimals and percentages –*<br>To recognise equivalent fractions (see exemplification year 4) | *Addition and subtraction –*<br>To add a three digit number and tens without regrouping (see progression year2)<br>To add 2 three-digit numbers without regrouping<br>To add three-digit numbers with regrouping (revert to expanded method if tricky)<br>To subtract with regrouping in tens and ones<br>To subtract a 3 digit number with regrouping in hundreds and tens To subtract a 3 digit number with regrouping in hundreds, tens and ones | *Multiplication and division –*<br>To carry out short multiplication without regrouping<br>To carry out short multiplication with regrouping in ones, tens and hundreds<br>To divide a two digit number by a one digit number (in concrete with and without remainders) To divide a two digit number by a one digit number using short division (no remainders) | |
| Term 4 | *Statistics –*<br>To recognise importance of titles and labels when sorting data | *Measure – money*<br>To calculate change given in both £ and p | *Four operations – money*<br>To add three-digit numbers with regrouping (revert to expanded method if tricky) | *Measure - time*<br>To read and record time to the nearest minute.<br>To compare time in seconds, minutes and hours. | *Four operations –*<br>To add three-digit numbers with regrouping (revert to expanded method if tricky) | | |

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| | To solve one step questions using statistical information.<br>To solve two step questions using statistical information | | To subtract a 3 digit number with regrouping in hundreds, tens and ones<br>To divide a two digit number by a one digit number using short division (no remainders)<br>To carry out short multiplication with regrouping in ones, tens and hundreds | To convert hours and minutes. | To subtract a 3 digit number with regrouping in hundreds, tens and ones<br>To divide a two digit number by a one digit number using short division (no remainders)<br>To carry out short multiplication with regrouping in ones, tens and hundreds<br>*Word problems* | | |
| Term 5 | *Number and place values –*<br>Identify, represent and estimate numbers up to 1000 in numerals and words.<br>To recognise the place value of different measures.<br>To use dienes and coins to understand place value. | *Addition and subtraction –*<br>To add using place value counters<br>To develop and recognise patterns in addition<br>To estimate the answer to a calculation To solve word problems<br>To count back to find the difference To estimate the answer to a calculation<br>To use inverse operations to check answers To subtract 'taking away' one set using the bar model<br>To subtract 'comparing two sets' using the bar model | *Multiplication and division –*<br>To understand measuring and scaling problems<br>To solve problems where items are shared equally (12 sweets between 4 children)<br>To solve problems where items are shared using knowledge of fractions (4 cakes shared between 8 children)<br>To know whether to round up or down depending on context. | *Fractions, decimals and percentages –*<br>To add like fractions (fractions with the same denominator) | *Fractions, decimals and percentages –*<br>To subtract like fractions | *Fractions, decimals and percentages -* To solve word problems involving fractions | |
| Term 6 | *Measure – volume and capacity*<br>To measure and compare volume in l/ml. | *Four operations – volume and capacity* To convert between different units of measure.<br>To add three-digit numbers with regrouping (revert to expanded method if tricky)<br>To subtract a 3 digit number with regrouping in hundreds, tens and ones<br>To divide a two digit number by a one digit number using short division (no remainders)<br>To carry out short multiplication with regrouping in ones, tens and hundreds | *Measure – length and mass*<br>To measure and compare lengths in m, cm and mm.<br>To measure and compare mass in Kg and g. | *Four operations – length and mass*<br>To convert between different units of measure.<br>To add three-digit numbers with regrouping (revert to expanded method if tricky)<br>To subtract a 3 digit number with regrouping in hundreds, tens and ones<br>To divide a two digit number by a one digit number using short division (no remainders)<br>To carry out short multiplication with regrouping in ones, tens and hundreds | *Geometry –*<br>To sort symmetrical and non-symmetrical polygons and polyhedra.<br>To connect decimals and rounding to drawing and measuring straight lines.<br>To identify horizontal and vertical lines.<br>To identify pairs of perpendicular and parallel lines. | *Statistics –*<br>To understand and use simple scales.<br>To classify shapes, numbers and objects into a Venn diagram.<br>To classify shapes, numbers and objects into a Carroll diagram. | *Measure - time*<br>To calculate and compare duration of events. |

Throughout (and when children are ready): To use the bar model to represent word problems, Problem solving (4 types)

# Year 4 Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
|---|---|---|---|---|---|---|---|
| Term 1 | Number and place value<br>To represent 4 digit numbers (concrete-place value counters).<br>To find 1, 10, 100 or 1000 more than a given number (concrete).<br>To recognise the place value of each digit in a four digit number.<br>Order numbers beyond 1000.<br>Compare numbers beyond 1000. | Addition and Subtraction<br>To add four digit numbers (no regrouping)<br>To add with regrouping in the 100s<br>To add with regrouping in the 100s, 10s and 1s<br>To add with regrouping in the 1000s, 100s, 10s and 1s<br>To identify common misconceptions in column addition | Addition and Subtraction<br>To subtract up to 4 digit numbers (no regrouping)<br>To subtract with regrouping in hundreds and thousands<br>To subtract with regrouping in hundreds, thousands, tens and ones<br>To subtract with numbers that have zeros<br>To identify common misconceptions in column subtraction | Multiplication and division<br>To multiply by ten using place value grids and dienes<br>To multiply two digit numbers by a one digit number (see year 3 exemplification)<br>To multiply three digit numbers by one digit number<br>To multiply two digit by two digit number | Multiplication and division<br>To use number bonds for factor and products (To solve missing number sentences)<br>To make the link between sharing, arrays and short division.<br>To use known facts to derive facts involving 3 digit numbers (If I know 2x3 = 6 I can work out that 600÷3=200)<br>To use the distributive property strategy to divide 'friendly' numbers. | Measurement – Time<br>To convert units of measure.<br>To convert time between analogue and digital clocks (12 hour and 24 hour).<br>To solve problems involving converting time.<br>To calculate time durations that pass through the hour. | |
| Term 2 | Fractions, decimals and percentages<br>To identify equivalent fractions<br>Show equivalent fractions pictorially (and calculate equivalent fractions)<br>To compare fractions | Fractions, decimals and percentages<br>To use factors and multiples to recognise equivalent fractions<br>To simplify fractions<br>Add and subtract like fractions (fractions with the same denominator). | Geometry-properties of shape<br>To classify different triangles.<br>To classify different quadrilaterals.<br>To identify lines of symmetry in 2-D shapes presented in different orientations.<br>To complete a simple symmetric figure. | Statistics<br>To interpret and present data in a bar chart<br>To interpret and present data in a time graph<br>To solve comparison problems using information presented (in a range of tables/graphs).<br>To solve sum problems using the information presented (in a range of tables/graphs).<br>To solve finding the difference problems using the information presented (in a range of tables/graphs). | Measurement-length and mass<br>To measure and calculate the perimeter of rectilinear shapes.<br>To find the area of rectilinear shapes (by counting squares).<br><br>To estimate, compare and calculate measures. | Measurement – volume and capacity<br>To estimate, compare and calculate measures. | Four operations (context: volume, capacity, length, mass) |
| Term 3 | Number and place value<br>Round any number to the nearest 10, 100, 1000. (To round appropriately given context see division strand)<br>To identify and count in negative numbers.<br>To estimate and round numbers using measuring instruments. | Addition and subtraction<br>To round off numbers to the nearest 10 / 100 - To estimate to check answers<br>To add and subtract decimals up to 2 decimal places<br>To solve two step word problems.<br>Use take away and comparing models to solve subtraction word problems. | Multiplication and division<br>To use the distributive law: 32x3 = (30x3) + (2x3) = 90+6 = 96<br>To use associative law to multiply three numbers<br>To solve problems using scaling<br>To derive multiplication and division facts from three digit numbers<br>To divide a three digit number using short division (Regrouping in tens and ones) | Fractions, decimals and percentages<br>To calculate the fraction of numbers and quantities<br>Recognise and write decimal equivalents of any number of tenths of hundredths<br>Recognise and write decimal equivalents to<br>,<br>, | Fractions, decimals and percentages.<br>Compare numbers with the same number of decimal places (up to 2 decimal places)<br>Round decimals with one decimal place to the nearest whole number. | Geometry – position and direction<br>To recognise that two right angles make a half turn, three make three quarters and four complete.<br>To describe position on a 2-D grid as co-ordinates.(2,5) | |

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| | | | To divide a three digit number using short division (Regrouping in tens, ones and hundreds) | | | | |
| Term 4 | Statistics<br>To understand and use a range of scales.<br>To understand the recording of change over time.<br>To record change over time in a range of graphs. | Measurement – money<br>To calculate money in pounds and pence using four operations. | Four operations | Measurement – time<br>To convert units of measure.<br>To convert time between analogue and digital clocks (12 hour and 24 hour).<br>To solve problems involving converting time.<br>To calculate time durations that pass through the hour. | Geometry – properties of shape<br>To identify acute and obtuse angles.<br>To compare and order angles up to two right angles, by size.<br>To compare length and angles to decide if a polygon is regular or irregular. | | |
| Term 5 | Number and place value<br>To understand the history of different numeration systems.<br>To read and understand Roman numerals.<br>To understand the place value of decimals and fractions (see learning objectives in these strands). | Addition and subtraction<br>To round off numbers to the nearest 10 / 100 - To estimate to check answers<br>To add and subtract decimals up to 2 decimal places<br>To solve two step word problems.<br>Use take away and comparing models to solve subtraction word problems. | Multiplication and division<br>To recognise factors of a number<br>To multiply decimals | Fractions, decimals and percentages<br>To connect fractions, decimals and measures (using a number line) | Fractions, decimals and percentages<br>To connect fractions, decimals and measures (using a number line) | Geometry – position and direction<br>Describe movements between positions as translations (left, right, up, down)<br>To plot specified points.<br>To draw a polygon.<br>To draw a pair of axes.<br>To use coordinate plotting ICT tools. | |
| Term 6 | Measurement – volume and capacity<br>To estimate, compare and calculate measures | Four operations (context: volume and capacity) | Measure – Length and mass<br>To estimate, compare and calculate measures | Four operations (context: length and mass) | Geometry – properties of shapes<br>To compare and classify geometric shapes based on their properties and sizes.<br>To use a tree diagram to classify shapes | Statistics<br>To record data into Venn and Carroll diagrams. | Measurement – time<br>To convert units of measure.<br>To convert time between analogue and digital clocks (12 hour and 24 hour).<br>To solve problems involving converting time.<br>To calculate time durations that pass through the hour. |

Throughout (and when children are ready): To use the bar model to represent word problems, Problem solving (4 types)

# Year 5 Maths Medium Term Plan

| | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 |
|---|---|---|---|---|---|---|---|
| Term 1 | Number and place value<br>To represent 6 digit numbers (to 1 000 000) (concrete- place value counters).<br>To recognise the place value of each digit in a six digit number.<br>To compare & order numbers to at least 1 000 000<br>To understand decimals and fractions (Revising in Term 6)<br>Recognise thousandths and relate them to tenths, hundredths and decimal equivalents. | Addition and Subtraction<br>To add four digit numbers (regrouping in the 1000s, 100s, 10s and 1s)<br>To identify common misconceptions in column addition<br>To subtract four digit+ numbers (regrouping in the 1000s, 100s, 10s and 1s)<br>To identify common misconceptions in column subtraction | Mulitplication & division<br>Divide whole numbers by 10,100 and 1000 Divide decimals by 10, 100 and 1000<br>To divide by powers of 10 (in scale drawings).<br>To divide by powers of 1000 (in converting between units such as km and m)<br>To multiply whole numbers& decimals by 10, 100, 1000 | Multiplication and division<br>To solve problems involving multiplication.<br>To multiply numbers up to four digits by a one digit number<br>To multiply numbers up to four digits by a two digit number<br>Divide numbers up to 4 digits by a one digit number (with remainders) | 4 operations<br>To solve multistep word problems using the bar model.<br>Solve problems involving number up to three decimal places.<br>To find the missing value. | Measure – Time<br>To solve problems involving converting units of time | |
| Term 2 | Fractions, decimals and percentages.<br>To identify equivalent fractions (including tenths and hundredths)<br>To compare and order fractions (whose denominators are multiples of the same number) | Fractions, decimals and percentages.<br>To calculate fractions of numbers and quantities.<br>Read and write decimal numbers as fractions. | Geometry-properties of shape<br>To identify 3-D shapes from 2-D representations (including cubes and other cuboids).<br>To sort regular and irregular polygons.<br>To estimate and compare angles. (obtuse, acute, reflect, right angle) | Measurement-length and mass<br>To convert between different units of metric measure.<br>To measure and calculate the perimeter of composite rectilinear shapes. | Measurement-volume and capacity<br>To calculate and compare the area of rectangles. ($cm^2$ and $m^2$)<br>To estimate the area of irregular shape.<br>To estimate and measure capacity.<br>To estimate volume. | 4 operations volume, capacity, length and mass.<br>To solve multistep word problems using the bar model.<br>To find the missing value.<br>To use all four operations to solve problems involving measure.<br>To solve missing measure questions when presented algebraically. | *Statistics*<br>To solve comparison problems using information in a line graph.<br>To solve sum problems using information in a line graph<br>To solve difference problems using information in a line graph. |
| Term 3 | Number and place value<br>*To recognise and describe linear number sequences.*<br>*To find the term-to-term rule*<br>*To interpret negative numbers. Counting forward and backward.*<br>*To round numbers to the nearest 10, 100, 1000, 10 000 and 100* | Addition and subtraction<br><br>To round off numbers to the nearest 10.<br>To round off numbers to the nearest 100.<br>To round decimals with 2d.p to the nearest whole number. Or to one decimal place.<br>To subtract decimals up to 2 decimal places | Multiplication and division<br><br>To identify common factors of two numbers.<br>To use number bonds for factor and products and to identify missing factors (using fractions and decimals)<br>To know prime numbers, prime factors and composite numbers. | Fractions, decimals and percentages.<br><br>To add and subtract fractions with the same denominator (see year 4)<br>To add and subtract fractions with denominators that are multiples of the same number. | Fractions, decimals and percentages.<br><br>To convert mixed numbers to improper fractions (and back) | Fractions, decimals and percentages.<br>To multiply fraction and mixed numbers by a whole number. (use diagrams to support) | |

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| | *000 (To round appropriately in context see division strand)* | To subtract money using the column method<br>To add decimals up to 2 decimal places<br>To add money using the column method<br>To use part, part whole to add money (will review in term 4, week 1) | To recognise and use squared and cubed numbers | | | | |
| Term 4 | Measure-money<br>*To use part, part whole to add money* | Four operations<br>To solve multistep word problems using the bar model.<br>To find the missing value. | *Measurement time*<br>To solve problems involving converting units of time | Geometry –position and direction<br>To reflect the position of a shape To reflect the position of a shape in all four quadrants (extension)<br>To translate the position of a shape<br>To translate the position of a shape in all four quadrants (extension) | Geometry –properties of shape.<br>To draw given angles and measure them in degrees. (using a protractor)<br>To identify angles at a point and one whole turn.<br>To identify angles at a point on a straight line.<br>To identify missing lengths and angles. (using angle sum facts) | | |
| Term 5 | Number and place value<br>*To count in steps of powers of 10 up to 1 000 000 Read Roman numerals (See progression year 4)*<br>*To solve problem including all of the above.* | Addition and subtraction<br>To subtract measures using the column method<br>To add measures using the column method.<br>To solve multistep word problems using the bar model. | Multiplication of division<br>To understand the law of distributivity<br>To use the distributive property strategy to divide 'friendly' numbers.<br>To interpret remainders appropriately for the context (rounding up or down- see year 6 exemplification)<br>To interpret non-integer answers to division by expressing results in different ways<br>Reviewing skills of:<br>To multiply numbers up to four digits by a one digit number<br>To multiply numbers up to four digits by a two digit number<br>Divide numbers up to 4 digits by a one digit number (with remainders) | Fractions, decimals and percentages<br>Read and write decimal numbers as fractions.<br>To add and subtract decimals | Fractions, decimals and percentages<br>Recognise thousandths and relate them to tenths, hundredths and decimal equivalents. | Fractions, decimals and percentages<br>To know that a percent means out of 100 & percent symbol.<br>Write percentages as a fraction with denominator 100.<br>Write percentages as a decimal.<br>Solve problems which require knowing percentage and decimal equivalence of ½, ¼, 2/5/, 4/5 and those fractions with a denominator of 10 or 25.<br>To convert fractions to percentages | |
| Term 6 | Statistics<br>To complete, read and interpret information in tables (including time tables)<br>To make links with coordinates | *Geometry-position and direction*<br>To use a 2-D grid and coordinates in the first quadrant | *Geometry properties of shape*<br>To draw lines to the nearest mm.<br>To label parallel lines and right angles. | Measurement-volume and capacity<br>To measure and calculate the perimeter of composite rectilinear shapes | Measurement length and mass<br>To use approximate equivalences between metric and imperial units. | Measurement-money<br>To solve problems involving money using the four operations. | Four operations (measurement)<br>To use all four operations to solve problems involving measure (for example, length, |

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| | To choose the appropriate representations of data. | To use a 2-D grid and coordinates in all four quadrants. (extension)<br><br>Revision of translation. | To identify and use diagonal and parallel lines.<br><br>Use the properties of rectangles to deduce related facts and find missing lengths and angles. | | To use multiplication and division to inter scale and calculate changing rates.<br><br>Review metric measures. | | mass, volume, money) using decimal notation, including scaling. |

Throughout (and when children are ready): To use the bar model to represent word problems, Problem solving (4 types)

# Year 6 Maths Medium Term Plan

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|---|---|---|---|---|---|---|---|---|
| Term 1 | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | |
| | **SDD and KENT TEST**<br>**Number and place value**<br>-read, write and say numbers up to 10,000,000<br>-partitioning<br>-ordering<br>-rounding<br>-doubling and halving (including decimals)<br>-prime, factors, multiples, squared and cubed numbers<br>-roman numerals | | **Positive and negative numbers**<br>-using positive and negative numbers in real life contexts<br>-adding and subtracting<br>-problem solving with negative numbers | **Swattenden** | **Adding and subtracting**<br>-column addition and subtractions<br>-estimation to check answers<br>-solving word problems and using correct vocab for adding and subtracting<br>-explaining and reasoning<br>-application of number knowledge in adding and subtracting calculations/problems | | **Mental methods for multiplying and dividing**<br>-x and ÷ by 10, 100 and 1000 (including decimals)<br>-using the inverse and number facts to solve problems ie 24 x____ = 2.4 | |
| Term 2 | Week 1 | Week 2 | Week 3 | Week 4 | Week 5 | Week 6 | Week 7 | Week 8 |
| | **Multiplication**<br>-grid<br>-expanded column<br>-compact column<br>-solving problems | | **Division**<br>-short division<br>-long division<br>-solving problems | | **Four operations**<br>-associated vocab<br>-inverse<br>-problem solving<br>-estimating | **BODMAS and algebra**<br>-solving problems<br>-writing formula | **Fractions**<br>-finding fractions of shapes and numbers<br>-proper, improper and mixed numbers | (3 days)<br>**Fractions**<br>-simplifying and finding equivalents<br>-ordering<br>(and 2 days after half term) |
| Term 3 | Week 1 | Week 2 | Week 3 | Week | Week 5 | Week 6 | | |
| | (2 days)<br>**Fractions**<br>-simplifying and finding equivalents<br>-ordering | **Fractions**<br>-adding and subtracting<br>-multiplying and dividing | **Fractions and decimals**<br>-converting between fractions and decimals | **Fractions, decimals and percentages**<br>-converting between fractions, decimals and percentages<br>-finding percentages of amounts | **Percentage**<br>-percentage increase and decrease<br>-problems solving using FDP | **Angles**<br>-measure and draw accurately<br>-types of angles<br>-find missing angles (including within shapes) | | |
| Term 4 | Week 1 | Week | Week 3 | Week | Week 5 | Week 6 | | |
| | **Geometry –position and directions**<br>-coordinates<br>-translation<br>-reflection<br>-symmetry<br>-rotation | **Geometry -shape**<br>-properties of 2D shapes<br>-types of lines (parallel etc)<br>-circles<br>-properties of 3D shapes | **Geometry**<br>-perimeter<br>-area<br>-volume | **Measure –time and units of measure**<br>-reading scales<br>-time (reading clocks and intervals)<br>-calendar and time problems<br>-selecting appropriate units of measure | **Measure –mass, length and capacity**<br>- converting between units of measure<br>-solving problems | **Data handling**<br>-types of graph<br>-interpreting<br>-pie charts | | |
| Term 5 | Week 1 | Week | Week 3 | Week | Week 5 | Week 6 | | |
| | **Number and place value**<br>-ratio and scaling | REVISION | REVISION | **(4 days)**<br>REVISION | KS2 SATs week | **Problem solving and data handling** | | |
| Term 6 | Week 1 | Week | Week 3 | Week | Week 5 | Week 6 | Week 7 | Week 8 |

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| | **Problem solving and data handling** | **Problem solving and data handling** | **Problem solving and data handling** | **Problem solving and data handling** | **Problem solving and data handling** | **Problem solving and data handling** | **Problem solving and data handling** | (2 days) |