



TERMLY PLAN FOR MATHEMATICS

in accordance with the requirements of the
Key Stage 2 Mathematics Programme of Study
(statutory from September 2015)

With Maths Makes Sense Links

July 2016

YEARS 3 and 4

IMPORTANT POINTS:

- **Mental and oral work** - 'Practice and development of oral and mental skills.' The requirements are based on the requirements of the relevant ages within the Revised Curriculum and there is further detail to ensure depth and continuity.
- **Develop Numerical Reasoning** - (See below) There are regular opportunities to develop the skills below throughout the scheme of work.
- In the column "Resources", **ITPs** are referred to. All of the interactive programs are on the County Mathematics CD (2012 / 2013)

Strand	Element	
Developing arithmetical reasoning	Recognising processes and connections → Problem Solving	apply mathematical skills to various everyday situations and contexts
		identify appropriate information and actions needed to complete task or reach solution
		select appropriate technique and mathematics to use
		select and use suitable measuring tools and units
		select appropriate mental or written strategy and know when use of calculator is appropriate
		estimate and visualise quantity in measuring and use correct units
	Representing and communicating → Oral or written	clearly explain results and procedures using mathematical diction
		refine informal methods of recording written calculations, moving to formal calculation methods when sufficiently developed to do so
		use appropriate measuring units, symbols and notation
		select and draw appropriate charts, diagrams and graphs with suitable scales
	Revising and Verifying Reasoning →	choose from an increasing range of verification strategies to determine whether answers are reasonable
		interpret answers in the context of the problem and consider whether answers are sensible, including calculator indicators, analogue and digital
		use data to draw conclusions, and recognise that some conclusions may be misleading or uncertain

KEY ❖ - **bold** text, Area of Learning Skill

Normal text underlined – Numeracy Framework Skill

Possible resources: **Maths Makes Sense Resources**

ITPs, **Numicon Number Pattern and Calculating Activities**,

Numicon Geometry Measurement and Statistics Activities,

Numerical Reasoning Activities,

Let's Think Activities

Medium Term Plan : Spring Term (i)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

Year 3:
Read and write whole numbers up to 1000
 Put set of three-digit numbers in order
 Count forwards/backwards by 10, 100 from any two-/three-digit numbers
 Derive doubles of whole numbers up to 20, and corresponding halves
 Derive close doubles
 State subtraction fact corresponding to addition fact and vice versa
 Count forwards and backwards in twos.
 Identify odd/even numbers up to 100
Recall multiplication facts in 2x, 5x and 10x tables and derive division facts
Recall addition and subtraction facts for every number up to 20
 Recall pairs of multiples of 100 totalling 1000
Multiply numbers by 10

Year 4:
 Read and write whole numbers up to 1000
 Derive doubles of multiples of 10 up to 500, and corresponding halves
 Count forwards/backwards by 10, 100 from any two-/three-digit numbers
 Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables and derive division facts
 Recall addition and subtraction facts for each number up to 10
 Derive multiplication facts in 8x table and begin to recall them
 Round off any three-digit number to nearest 10 or 100
 Add/subtract a pair of two-digit numbers (crossing 10 boundary but not 100 boundary)
 Write subtraction fact corresponding to specific addition fact

 Multiply and divide whole numbers by 10

Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using number skills	Use Number facts and relationships	Place value,		Kit 4 Calculating activity 7 ITP Moving Digits	<u>Multiply and divide numbers by 10 and 100; understand the effect</u>
Using algebra skills	Equations and inequalities	Place value, putting in order, rounding off	Read and write vocabulary for comparing numbers and putting in order, up to 1000 Compare two three-digit numbers and state which is largest or smallest List numbers that are 'greater than' or 'less than' another number❖ Read statements about numbers expressed using an inequation signl e.g. $6 > 4$❖	ITP Twenty Cards NR Year 4 Monsters eating activity 2 and 3 NR Year 4 How many dice activity 2 Kit 4 Number and the number system activity 2 Kit 3 Number and the number system activity 3 and 5	Read and write vocabulary for comparing and putting in order numbers up to 10 000 Use $<>$ correctly to describe whether a number is less than or greater than another ❖ Give a number which lies between two other numbers
Using measuring skills	Temperature	Reading numbers from scales	Define a negative number as a number less than 0❖ Read number lines correctly e.g. thermometer <u>Take emperature readings using thermometers and interpret readings above and below 0°C</u>	Kit 4 Number and the Number system activity 4 ITP Thermometer	Identify negative whole numbers on number line ❖ Order whole numbers between -10 and 10 ❖ <u>Take temperature readings using thermometers and interpret above and below 0°C</u>

Using number skills	Estimate and check		Read and begin to write vocabulary relating to approximation Round off any two-digit number to nearest 10	Kit 3 Number and the number system activity 3	Use vocabulary relating to approximation Estimate by rounding off to nearest 10 or 100 Identify negative numbers in context: on number line, thermometer
	Calculate using mental and written methods	Understanding + and - Mental calculation strategies (+ -)	Mentally add three then four one-digit numbers Add three or four small numbers by putting largest number first and/or find pairs totalling 10 Partition to 5 and a bit in order to add 6, 7 or 8	ITP Number Spinners Kit 3 Calculating activity 1, 2, 3 and 4 Kit 3 Calculating activity 12	Understand principle (but not name) of commutative law for + not - (i.e. adding in any order) Add several small numbers by finding pairs totalling 10, or 9 or 11 Partition to tens and units, adding the tens first Add three two-digit numbers which are multiples of 10
		Pen and paper methods (+ -)			Kit 3 Calculating activity 13 and 14
	Money management		<u>Use different combinations of money to pay for items up to £2 and calculate change</u> <u>Order and compare items up to £10</u>	Kit 3 Measurement activity 4	
	Estimate and check	Problems relating to money and 'real life' Making decisions, verifying results	Use appropriate number operations and calculation methods to solve, in one or more steps, 'real life' or money-related problems expressed in words, including <u>record money spent and saved</u> Explain and record method Verify by making an equivalent calculation i.e. <u>check subtraction using addition</u> <u>check halving using doubling</u> <u>check multiplication using repeated addition</u>	Let's think 6-9 - Good and bad clues NR Year 3 Jewels activity 1	Choose appropriate number operations and calculation methods to solve, in one or more steps, 'real life' or money-related problems expressed in words, including <u>manage money, compare costs from different retailers and determine what can be bought within a given budget</u> Explain how problem was solved Verify answers using inverse operations

Medium Term Plan : Spring Term (ii)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

Year 3:
Read and write whole numbers up to 1000
 Put set of three-digit numbers in order
 Count forwards/backwards by 10, 100 from any two-/three-digit number
 Derive doubles of whole numbers up to 20, and corresponding halves
 Derive close doubles
 State subtraction fact corresponding to addition fact and vice versa
 Count forwards and backwards in twos. Identify odd/even numbers up to 100
Recall multiplication facts in 2x, 5x and 10x tables and derive division facts
Recall addition and subtraction facts for every number up to 20
 Recall pairs of multiples of 100 totalling 1000
Multiply numbers by 10

Year 4:
 Read and write whole numbers up to 1000
 Derive doubles of multiples of 10 up to 500, and corresponding halves
 Count forwards/backwards by 10, 100 from any two-/three-digit number
 Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables and derive division facts
 Recall addition and subtraction facts for each number up to 10
 Derive multiplication facts in 8x table and begin to recall them
 Round off any three-digit number to nearest 10 or 100
 Add/subtract pair of two-digit numbers (crossing the 10 but not 100 boundary)
 Write subtraction fact corresponding to specific addition fact
 Multiply and divide whole numbers by 10

Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using geometry skills	Shape	Shape and space	Make and describe shapes and patterns Relate solid shapes to pictures of them	Let's think 6-9 - shapes in things NR Year 3 Ffion the frog activity 3 and 4	Make shapes and discuss properties Visualise solid shapes from 2-D pictures.
Using measuring skills	Area and volume Angle and position		Read and begin to write direction-related vocabulary Make and use right angle turns, and use four compass points to <u>describe directions</u>	Let's think 6-9 - where are the frogs? Kit 3 Geometry activity 2 and 4 NR Sbing the spy activity 1 and 2 What's My Angle? ITP Calculating Angles Let's think 6-9 - Hungry Crocodiles Kit 4 Geometry activity 3	Recognise clockwise, counter-clockwise <u>Use eight compass points to describe direction</u> Begin to draw, measure and arrange angles.
Using geometry skills	Construction			Kit 3 Geometry activity 1	Recognise and draw perpendicular and parallel lines ♦
	Shape	Shape reasoning	Solve shape puzzles or problems. Explain reasoning and methods	Let's think 6-9 -shapes in things	Solve shape problems or puzzles. Explain reasoning and methods
Using measuring skills	Time	Measurements, and time, including problems	<u>Read hours and minutes on 12 hour digital clock using am/pm conventions</u>	Kit 4 Measurement activity 1 ITP Tell the Time	<u>Read hours and minutes on 24 hour digital clock</u> Convert between 12 hour and 24 hour clock times ♦ Estimate the number of minutes everyday activities take to complete ♦

<p>Length, Weight/Mass, Capacity</p>		<p>Read and begin to write vocabulary relating to weight/mass</p> <p>Use standard units to estimate and measure Weight/mass - use 5g, 10g and 100g weights</p> <p>Know the relationship between kilograms and grams</p> <p>Measure and compare using kg and g (e.g. Would you expect a newborn baby to weigh 30kg or 3kg?)</p> <p>Solve problems relating to weight/mass Choose appropriate number operations and calculation methods to solve, in one or more steps, weight/mass-related problems expressed in words Explain and record method</p>	<p>Kit 3 measurement activity 5</p> <p>Kit 4 measurement activity 4</p> <p>ITP Weighing Scales</p>	<p>Choose and use appropriate standard units to estimate and measure weight/mass ❖</p> <p>Choose appropriate metric units to measure length, weight/mass and capacity ❖</p> <p><u>Use weighing scales with divisions to weigh objects to the nearest 5g, 10g, 25g or 100g</u></p> <p>Measure and compare using kilograms and grams, and know and use the relationship between them. Know what $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1/10 of 1kg is in grams</p> <p>Choose appropriate number operations and calculation methods to solve, in one or more steps, weight/mass-related problems expressed in words. Explain and record method</p>
<p>Area and volume Angle and position</p>		<p><u>Find areas by counting squares</u></p>	<p>ITP Polygon</p> <p>ITP Area</p> <p>Kit 4 Measurement activity 6</p>	<p><u>Begin to measure and calculate area of rectangles and squares, using standard units and calculation methods (square centimetres cm²)</u></p>

Medium Term Plan : Spring Term (iii)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

Year 3:
Read and write whole numbers up to 1000
 Recall pairs of multiples of 100 totalling 1000
 Count forwards/backwards by 10, 100 from any two-/three-digit number
 Recall pairs of multiples of 5 totalling 100
Recall multiplication facts in 2x, 5x, 10x tables and derive division facts
 State subtraction fact corresponding to addition fact and vice versa
Recall multiplication facts in 3x table
 Derive doubles of whole numbers up to 20, and corresponding halves
 Put set of three-digit numbers in order
 Derive doubles of multiples of 5 up to 50
Recall addition and subtraction facts for each number up to 20
Multiply numbers by 10

Year 4:
 Read and write whole numbers up to 10000
 Recall addition and subtraction facts for each number up to 20
 Count forwards/backwards in consistent-sized steps, going below zero
 Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables
 Derive doubles of multiples of 10 up to 500, and corresponding halves
 Derive multiplication facts in 6x table and begin to recall them
 Round off any three-digit numbers to nearest 10 or 100
 Multiply and divide whole numbers by 10
 Add/subtract two two-digit numbers (crossing the 10 but not 100 boundary)
 Derive adding pairs totalling 100, multiples of 50 totalling 1000

Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using number skills	Use Number facts and relationships	Calculation, number properties and number sequences	Identify odd and even numbers up to 100 ❖	ITP Number Grid Kit 2 Pattern and algebra activity 4	
	Number sequences		Count forwards/backwards by 2, 3 or 4 starting from any two-digit number: Explore sequences of whole numbers involving addition and subtraction e.g. counting in 2s,3s and 4s from different starting points❖ Write the next two (or more) terms in sequences that involve addition or subtraction❖	Kit 2 Pattern and algebra activity 5 Kit 3 Pattern and algebra activity 2 and 4	Explore sequences of positive whole numbers involving addition and subtraction in 2s,3s, 4s, 5s, 6s, 8s and 10s from different start points❖ Write the next two (or more) terms in sequences that involve addition or subtraction ❖
Using algebra skills	Functions and graphs		Use one- and two-step function machines to generate input and output involving addition and subtraction within 100; express, in words, the operation of function machines❖	Function Machine	Use one- and two-step function machines to generate input and output all four operations; express, in words, the operations of function machines❖

Developing Numerical Reasoning		Number reasoning	Investigate general statements on familiar numbers and give corresponding examples. Solve number puzzles. Give oral and written explanation of methods and reasoning.	<p>Kit 3 Pattern and algebra activity 5</p> <p>Kit 4 Pattern and algebra activity 6</p> <p>NR Year 4 Trainers activities 1</p> <p>NR Year 3 Mrs Jones likes tea activity 1</p> <p>NR Year 3 Jewels activity 3</p> <p>NR Year 3 Ffion the frog activity 1</p>	Investigate general statements about familiar numbers Explain methods and reasoning
Using number skills	Calculate using mental and written methods	Understanding + and - Mental calculation strategies (+ -)	<p>Add three two-digit numbers using informal tools/methods</p> <p>Partition to tens and units and then recombine</p> <p><u>Use partitioning to double and halve 2-digit numbers</u></p>	<p>NR Year 4 Hat trick activity 2</p> <p>Kit 3 Calculating activity 12</p>	
		Understanding x and ÷ Mental calculation strategies (x ÷)	<p>Understand division as a grouping act</p> <p>Read and begin to write associated vocabulary</p> <p>Identify multiples of 2, 3, 4, 5 and 10; use the term multiple ❖</p> <p><u>Use partitioning to double and halve 2-digit numbers</u></p>	<p>ITP Grouping</p> <p>ITP Number Spinners</p> <p>Kit 4 Calculating activity 5 and 6</p> <p>NR Year 4 sharing activity 1 and 2</p> <p>Let's think 6-9 - which is best?</p>	<p>Understand the associative and commutative law of multiplication</p> <p>Divide whole number of £ by 2, 4, 5 or 10 to give £/p</p> <p><u>Use mental strategies to recall multiplication tables for 2, 3, 4, 5, 6 and 10 and use to solve division problems</u></p> <p><u>Use mental strategies to multiply and divide 2-digit numbers by single digit number</u></p> <p>e.g. use closely-related facts, derive x9 or x11 from x10, or derive x6 from x4 plus x2.</p> <p>Partition and multiply</p>
	Pen and paper methods (x ÷)		<p>Kit 3 Calculating activity 15</p> <p>ITP Multiplication Grid</p>	Develop and refine written methods for TU x U	
	Money management Estimating and verifying	<p>Problems related to money and 'real life'</p> <p>Making decisions, verifying results</p>	<p>Choose appropriate number operations and calculation methods to solve, in one or more steps, 'real life' and money-related problems including <u>record money spent and saved</u></p> <p>Explain and record method</p> <p>Verify results, e.g. verify division by multiplication, halving by doubling</p> <p>i.e. <u>check subtraction using addition</u></p> <p><u>check halving using doubling</u></p> <p><u>check multiplication using repeated addition</u></p>	Money week	<p>Choose appropriate number operations and calculation methods to solve, in one or more steps, 'real life' and money-related problems including <u>manage money, compare costs from different retailers and determine what can be bought within a given budget</u></p> <p>Explain how problem was solved</p> <p><u>Check answers using inverse operations</u></p>

Medium Term Plan : Spring Term (iv)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

Year 3:
 Read and write whole numbers up to 1000
 Recall pairs of multiples of 100 totalling 1000
 Count forwards/backwards by 10, 100 from any two-/three-digit number
 Recall pairs of multiples of 5 totalling 100
Recall multiplication facts in 2x, 5x, 10x tables and derive division facts
 State subtraction fact corresponding to addition fact and vice versa
Recall multiplication facts in 3x table
 Derive doubles of whole numbers up to 20, and corresponding halves
 Put set of three-digit numbers in order
 Derive doubles of multiples of 5 up to 50
Recall addition and subtraction facts for each number up to 20
Multiply numbers by 10

Year 4:
 Read and write whole numbers up to 10000
 Recall addition and subtraction facts for each number up to 20
 Count forwards/backwards in consistent-sized steps, going below zero
 Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables
 Derive doubles of multiples of 10 up to 500, and corresponding halves
 Derive multiplication facts in 6x table and begin to recall them
 Round off any three-digit number to nearest 10 or 100
 Multiply and divide whole numbers by 10
 Add/subtract two two-digit numbers (crossing the 10 but not 100 boundary)
 Derive adding pairs totalling 100, multiples of 50 totalling 1000

Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using number skills	Fractions, decimals, percentages and ratio	Fractions and decimals	Begin to identify simple equivalent fractions, e.g. 5/10 is equivalent to $\frac{1}{2}$, and 5/5 to 1 whole Halve 2-digit numbers in the context of number, money and measures	ITP Fractions Kit 3 Number and the number system activity 8 Kit 4 Number and the number system activity 5 NR Year 4 Incy Wincy spider activity 1,2 and 3 Let's Think 6-9 - How much bigger Kit 3 Number and the number system activity 7	Note two fractions totalling 1 Compare fraction with one half, and say whether it is larger or smaller Halve 3-digit numbers in the context of number, money and measures
Using data skills	Collect and record data Present and analyse data Interpret results	Data handling	<i>* opportunities should be secured to develop a cross-section of the following forms during the year</i> Represent data using: -lists, tally charts, tables and diagrams -bar charts and bar line graphs labelled in 2s, 5s and 10s -pictograms where one symbol represents more than one unit using a key -Venn and Carroll diagrams	NR Year 3 Mrs Jones likes tea activity 2	<i>* opportunities should be secured to develop a cross-section of the following forms during the year</i> Represent data using: -lists, tally charts, tables and diagrams -bar charts and bar line graphs labelled in 2s, 5s and 10s -pictograms where one symbol represents more than one unit using a key -Venn and Carroll diagrams
			Extract and interpret information from charts, timetables, diagrams and graphs	Kit 3 Pattern and algebra activity 3 NR Year 4 sleep time activity 2	Extract and interpret information from charts, timetables, diagrams and graphs

Medium Term Plan : Summer Term (i)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

<p>Year 3: <u>Read and write whole numbers up to 1000</u> <u>Recall addition and subtraction numbers for each number up to 20</u> Put set of three-digit numbers in order Recall pairs of multiples of 100 totalling 1000 Count forwards/backwards by 10, 100 from any two-/three-digit numbers Recall pairs of multiples of 5 totalling 100 <u>Recall multiplication facts in 2x, 5x and 10x tables and derive division facts</u> State subtraction fact corresponding to addition fact and vice versa Count in threes from zero and back to zero Derive doubles of multiples of 5 up to 50, and corresponding halves Derive doubles of multiples of 50 up to 500 <u>Recall multiplication facts in 3x tables and begin to derive division facts</u> Add/subtract, 19, 29, and 11, 21, 31 <u>Multiply numbers by 10</u></p>	<p>Year 4: Read and write whole numbers up to 10000 Recall addition and subtraction facts for every number up to 20 Add/subtract 10, 100, 1000 to/from any two-/three-digit number Derive adding pairs totalling 100 and multiples of 50 totalling 1000 Derive doubles of multiples of 100 up to 5000, and corresponding halves Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables and derive division facts Round off any three-digit number to nearest 10 or 100 Begin to recall facts in 6x and 8x tables Multiply or divide whole numbers by 10 or 100 Multiply TU by U e.g. 13x3 Add/subtract pair of two-digit numbers (crossing the 10 but not 100 boundary)</p>
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Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using number skills	Use Number facts and relationships	Place value, putting in order,	Compare two three-digit numbers, state which is largest or smallest and give a number that lies between them	ITP Twenty Cards NR Year 4 Monsters eating activity 2 and 3	<u>Multiply and divide whole numbers by 10 and 100</u>
Using algebra skills	Equations and inequalities		List numbers that are 'greater than' or 'less than' another number❖ Read statements about numbers expressed using an inequation sign, e.g. $6 > 4$ ❖	NR Year 4 How many dice activity 2 Kit 4 Number and the number system activity 2 Kit 3 Number and the number system activity 3 and 5	Use $<$ $>$ to denote that a number is less than or greater than another ❖
Using number skills	Use Number facts and relationships	estimating, rounding off	Round off any three-digit number to nearest 10	Kit 3 Number and the number system activity 6	<u>Estimate by rounding to nearest 10 or 100</u>
			Put set of whole numbers up to 1000 in order; locate them on number line	Kit 4 Number and the number system activity 2	Put set of whole numbers up to 10 000 in order
		Reading numbers from scales	Find unlabelled divisions on number line or measuring scale	ITP Measuring Cylinder & Weighing Scales Kit 3 Pattern and algebra activity 3	Read a variety of scales and dials to a reasonable level of accuracy

	Calculate using mental and written methods	Mental calculation strategies (+ -)	<p>Extend understanding of addition and subtraction</p> <p>Add several small numbers</p> <p>Add or subtract a close multiple of 10 to/from a two-digit number, by adding or subtracting the nearest multiple of 10 and modifying</p> <p>Use patterns of similar calculations</p> <p><u>Find differences within 100</u></p>	<p>ITP Difference</p> <p>Kit 3 Calculating activity 8,9 and 12</p> <p>ITP Number Spinners</p>	<p>Understand principles (but not name) of associative law in respect of addition</p> <p>Add or subtract to nearest multiple of 10 and modify</p> <p>Use place value and number facts to add/subtract, mentally, any pair of two-digit whole numbers</p> <p><u>Find differences within 1000</u></p>
		Pen and paper methods (+ -)	<p>Use informal pen and paper methods to support, record or explain TU+TU HTU+TU and HTU + HTU</p>	<p>Kit 3 Calculating activity 13 and 14</p> <p>Let's Think 6-9 - Chocolates to share</p> <p>ITP Difference</p> <p>ITP Number Spinners</p>	<p>Develop and refine written methods for addition/subtraction</p> <p>Add more than two whole numbers less than 1000 and money</p> <p><u>Add a 2-digit number to, and subtract a 2-digit number from, a 3-digit number using an appropriate mental or written method</u></p>
Using number skills	<p>Money management</p> <p>Estimate and check</p>	<p>Problems relating to money and 'real life'</p> <p>Making decisions, verifying results</p>	<p><u>Use different combinations of money to pay for items up to £2 and calculate the change</u></p> <p><u>order and compare items up to £10</u></p> <p>Select appropriate number operations and calculation methods to solve, in one or more steps, 'real life' or money-related problems expressed in words, including <u>record money spent and saved</u></p> <p>Explain and record method</p> <p>Verify results.</p> <p>i.e. <u>Check subtraction using addition</u></p> <p><u>check halving using doubling</u></p> <p><u>check multiplication using repeated addition</u></p>	<p>NR Year 3 Pizza Man activity 1</p> <p>NR Year 4 Buying a scooter activity 2 and 3</p> <p>Let's Think 6-9 - Choose the right question</p>	<p>Choose appropriate number operation and calculation method to solve, in one or more steps, 'real life' and money-related problems expressed in words including <u>manage money, compare costs from different retailers and determine what can be bought within a given budget</u></p> <p>Explain how problem was solved</p> <p><u>Check answers using inverse operations</u></p>

Medium Term Plan : Summer Term (ii)

Year 3 & 4

EVERY DAY : Practise and develop oral skills and mental arithmetic skills (e.g. counting, mental strategies, quick recall of +, -, x, ÷ facts)

Year 3:
 Read and write whole numbers up to 1000
Recall addition and subtraction facts up to 20
 Put set of three-digit numbers in order
 Recall pairs of multiples of 100 totalling 1000
 Count forwards/backwards by 10, 100 from any two-/three-digit number
 Recall pairs of multiples of 5 totalling 100
Recall multiplication facts in 2x, 5x and 10x tables and derive division facts
 State subtraction fact corresponding to addition fact and vice versa
Count in threes from zero and back to zero
 Derive doubles of multiples of 5 up to 50, and corresponding halves
 Derive doubles of multiples of 50 up to 500
Recall multiplication facts in 3x table and begin to derive division facts
 Add/subtract 9, 19, 29, and 11, 21, 31
Multiply numbers by 10

Year 4:
 Read and write whole numbers up to 10000
 Recall addition and subtraction facts for each number up to 20
 Add/subtract 10, 100, 1000 to/from any two-/three-digit number
 Derive adding pairs totalling 100 and multiples of 50 totalling 1000
 Derive doubles of multiples of 100 up to 5000, and corresponding halves
 Recall multiplication facts in 2x, 3x, 4x, 5x, 10x tables and derive division facts
 Round off any three-digit number to nearest 10 or 100
 Begin to recall facts in 6x and 8x tables
 Multiply or divide whole numbers by 10 or 100
 Multiply TU by U e.g. 13x3
 Add/subtract pair of two-digit numbers (crossing the 10 but not 100 boundary)

Strand	Element	Subjects	Yr 3 Objectives: Children are taught to:	Resources	Yr 4 Objectives: Children are taught to:
Using measuring skills	Length, Weight/Mass, capacity	Measurements, including problems	Read and begin to write vocabulary relating to capacity <u>Use standard units to estimate and measure</u> <u>Capacity - use litres and half litres; measure to the nearest 100ml</u> Know the relationship between litres and millilitres Measure and compare using l and ml (e.g. would you expect a teapot to hold 1l, 10l or 100l) Solve problems relating to capacity Choose appropriate number operations and calculation methods to solve, in one or more steps, capacity-related problems expressed in words Explain and record method	Kit 3 Measurement activity 6 Kit 4 Measurement activity 5 ITP Measuring Cylinder	Use vocabulary relating to capacity Choose and use appropriate standard units to estimate and measure length, weight/mass and capacity ♦ Use, read, write litre (l), millilitre (ml), pint Choose appropriate metric units to measure length, weight/mass and capacity ♦ Know how much $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, 1/10 of 1 litre is in ml <u>Measure capacities to the nearest 50ml or 100ml</u> Read scales Choose appropriate number operations and calculation methods to solve, in one or more steps, measuring problems expressed in words Explain how problem was solved
Using geometry skills	Movement	Shape and space	Identify and sketch lines of symmetry, and identify shapes without lines of symmetry Identify lines of symmetry in 2D shapes ♦ Draw horizontal and vertical lines of symmetry ♦	Kit 4 Geometry activity 2 Kit 2 Geometry activity 3 ITP Symmetry	Sketch the reflection of a simple shape in a mirror Draw lines of symmetry ♦ Draw the reflection of a shape in a horizontal or vertical line ♦

Using measuring skills	Area and volume Angle and position	Shape and space		Kit 4 Measurement activity 5	<u>Recognise volume in practical contexts</u>
			Recognise that two right angles make half a turn, and that four right angles make a full turn❖ Describe an angle as more or less than a right angle❖	<i>What's My Angle?</i> ITP Calculating Angles Kit 5 Geometry activity 1 and 3	Use a protractor to check whether an angle is more or less than a right angle ❖ Be familiar with full turn, 360° , 4 right angles; quarter turn, 90° , 1 right angle; half turn, 180° , 2 right angles. Identify 45° as half a right angle <i>Begin to measure angles in degrees</i>
Using geometry skills		Shape reasoning	Investigate general statements about shapes and suggest corresponding examples. Explain reasoning	Kit 2 Geometry activity 3 Kit 4 Geometry activity 2	Investigate general statements about shapes and suggest corresponding examples. Explain reasoning