Year 4 Maths Half Termly Planning

Autumn 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Counting** Count in multiples of 6. *Review counting in 3s and discuss the relationship between 3 and 6, double 3 is 6. Explore using that knowledge to calculate, for example, if I know 4 x 3 = 12, I can double 12 to answer 4x6=24.* *Use counting sticks, hundred squares and/or gattegno charts to model counting in multiples of 6s.*	**Counting** Count in multiples of 7. *Use counting sticks, hundred squares and/or gattegno charts to model counting in multiples of 7s.*	**Partitioning** Partition numbers up to four digits in as many different ways as possible. 56 = 50 + 6, 25 + 25 + 6, 50 + 3 + 3… Progress to apply the above skill to 3 and 4 digit numbers.	**Adjust to subtract** *Use number line to add on to subtract. Adding up to nearest tens.* *87-25 =* *25_____87* *Progress to apply the above skill to 4 digit numbers.*	**Compensate to subtract** **35 – 18 = ?** Add two to 18 to make 20 (friendly number)… 35 - 20 = 15 Then add 2 back on… 15+2=17 *Progress to apply the above skill to 3 and 4 digit numbers.*	**Number bonds to add** *Use number bonds to add mentally.* *13 + 7 = ? 3+7 = 10 so 10 + 10 = 20* *23 + 7 = 3 +7 = 10, so 10 +20 = 30…* *Progress to apply the above skill to 3 digit number and 4 digit numbers.*	**Investigations Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge. Review all times tables taught so far – 2, 5, 10, 3, 4 and 8.
Maths Unit	**Place Value** Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) Read and write numbers up to four digits.	**Place Value** Order and compare numbers beyond 1000. Find 1000 more or less than a given number.	**Addition** Add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate.	**Subtraction** Subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate.	**Subtraction** Subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate.	**Geometry** Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify lines of symmetry in 2-D shapes presented in different orientations.	
Reasoning/ Problem Solving	**Identify**, represent and estimate numbers using different representations **Solve** number and practical problems that involve all of the above and with increasingly large positive numbers.	**Identify,** represent and estimate numbers using different representations **Solve** number and practical problems that involve all of the above and with increasingly large positive numbers.	**Estimate a**nd use inverse operations to check answers to a calculation. **Solve** addition two-step problems in contexts, deciding which methods to use and why.	**Estimate** and use inverse operations to check answers to a calculation. **Solve** subtraction two-step problems in contexts, deciding which methods to use and why.	**Estimate** and use inverse operations to check answers to a calculation. **Solve** subtraction two-step problems in contexts, deciding which methods to use and why.	**Complete** a simple symmetric figure with respect to a specific line of symmetry	
X tables	5s and 10s (the relationship between them, doubles and end in 0 and/or 5) TTRS Counting Sticks *End of year target: recall multiplication and division facts for x tables up to 12x12.*	5s and 10s (discuss half of 100, half of 50) TTRS Daily Snappy Maths	2s and 4s (the relationships between them – the 4 times tables are double the 2s) TTRS Counting Sticks	2s and 4s (the relationships between them – the 2 times tables are half of the 4 times tables) TTRS Counting Sticks	4s and 8s (the relationships between them – the 8 times tables are double the 4s) TTRS Counting Sticks	4s and 8s (the relationships between them – the 4 times tables are half of the 8 times tables) TTRS Counting Sticks	

Mental Maths strategies should be kept on the boil throughout all units, remind children of them when you model concepts. Drip-feed teaching Time, use daily opportunities to teach/discuss it.

Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures

Year 4 Maths Half Termly Planning

Autumn 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Counting** *Count in multiples of 9.* *Use counting sticks and hundred squares.*	**X 10, 100 and 1000 mentally.** *Children need to understand that the answer increases in multiplication. The Dienes and the 1, 10, 100, 1000 show visually what happens as the digits move left.*	**Dividing mentally:** *Use place value, known and derived facts to divide mentally, including:* *dividing by 1.* **Example strategies to teach:** ***Use the inverse to divide.*** *48 divided by 8 = ?* *8 x 8 = 48, so 48 divided by 8 = 8.* ***Partition to divide.*** *48 divided by 3 = 16* *Partition 48 into 30 and 18:* *30 divided by 3 = 10* *18 divided by 3 = 6* *So… 10 + 6 = 16*	**Multiplication and Division** *Continue to multiply and divide by 10, 100 and 1000 mentally in preparation for converting measures later in the year.*	**Dividing by 4.** *Encourage children to halve the number and halve again when dividing by 4. Model this by cutting a 2D shape in half, then halving it again to model quarters.*	**Investigations Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge.	**Time** *Know (and convert) the number of seconds in a minute, and the number of days in each month, year and leap year.*
Maths Unit	**Measures (Area and Perimeter)** Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares.	**Multiplication** Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.		**Division/Fractions** Find the effects of dividing a one or two digit number by 10 and 100, identifying the value in the digits as ones, tenths and hundredths. Children need to understand that the answer decreases in division. The Dienes alongside the 1, 10, 100, 1000 show visually what happens as the digits move left.	**Fractions** Recognise and show, using diagrams, families of common equivalent fractions.		**Measures (time)** Read, write and convert time between analogue and digital 12- and 24-hour clocks. Try some fun investigations with Santa and time. What time does he start work? How long does he sleep?
Reasoning/ Problem Solving	Inverses: Allow children the opportunity to not only calculate perimeter but to use the perimeter to calculate lengths of sides.	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.	Apply these skills in different contexts.	Apply these skills in different contexts.	**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.		Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.
X tables	TTRS Counting Sticks Focus: 3s and 6s (the relationships between them – the 6 times tables are double the 3s) *End of year target: recall multiplication and division facts for x tables up to 12x12.*	TTRS Counting Sticks Focus: 3s and 6s (the relationships between them – the 3 times tables are half of the 6 times tables)	TTRS Counting Sticks Focus: 7s (7 is a prime number so no obvious patterns or tricks, it is full of odd and even numbers so it is the hardest to remember and will come up often on the MTC, this is a memory game – keep on practising!)		TTRS Counting Sticks Focus: 9s (multiples of 9 - the **ones** column is decreases by one each time until it reaches zero and it goes back to 9. The tens column increases by one each time. You can easily tell whether a number is a multiple of 9 by adding the digits together. If the sum of the digits equal 9, then the number is a multiple of 9. You can always multiply a number by 10 then adjust by subtracting, for example, if a child is stuck with 3 x 9 = ?, they can multiply 3 by 10, then subtract 3 which is 27).		TTRS Counting Sticks Focus: Revisit 7s from week 3 and 4.

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Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures

Year 4 Maths Half Termly Planning

Spring 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Use knowledge of near doubles to add mentally.** *25 + 26 = 51 (26 can be partitioned into 25+1, so 25+25 = 50, 50+1=51)* *150+152=302 (152 can be partitioned to 150 + 2, double 150 is 300, 300 +2 = 302).* *Progress to 4 digit numbers.*	**Adjust to subtract mentally (-9 and -11 to start with).** *37 – 9 = 28* *(Adjust 9 by adding one to it to make 10, 37-10 = 27, then adjust the answer by adding 1, 27+1= 28)* *Apply the same with -11, but encourage children to partition 11 into 10 + 1, take 10 away first, then take 1 away.* *Progress to apply the above skill to 3 digit numbers.*	**Multiplication and Division** *Continue to multiply and divide by 10, 100 and 1000 mentally.*	**Counting** *Count in multiples of 25 and 1000.* *Make links using shapes to 25 = ¼ of 100 and 250 is ¼ of 1000.* *Use counting sticks and hundred squares.*	**Number/Fractions** Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Use counting sticks, Dienes, 2d shapes…	**Investigations/Assessment Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge.	**Decimals** Recognise and write decimal equivalents of any number of tenths or hundredths.
Maths Unit	**Addition** Add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate.	**Subtraction** Subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate.	**Measures (Volume/capacity/mass/ length)** Convert between different units of measure [for example, kilometre to metre; hour to minute]	**Rounding** Round any number to the nearest 10, 100 or 1000.	**Fractions (Decimals)** Round decimals with one decimal place to the nearest whole number.		**Measures (Money) / Fractions** Solve simple measure and money problems involving fractions and decimals to two decimal places.
Reasoning/ Problem Solving	**Estimate a**nd use inverse operations to check answers to a calculation. **Solve** addition two-step problems in contexts, deciding which methods to use and why.	**Estimate** and use inverse operations to check answers to a calculation. **Solve** subtraction two-step problems in contexts, deciding which methods to use and why.	**Estimate**, calculate and compare different measures.	Solve number and practical problems involving rounding.	Estimate, compare and calculate different measures, including money in pounds and pence. *Convert between pounds and pence.*		Estimate, compare and calculate different measures, including money in pounds and pence. *Convert between pounds and pence.*
X tables	TTRS Counting Sticks Focus: Revisit 9s from Autumn 2 week 5 and 6. *End of year target: recall multiplication and division facts for x tables up to 12x12.*	TTRS Counting Sticks Focus: 11s (to find 8x11, children could multiply by 10 then add 8)	TTRS Counting Sticks Focus: 6s and 12s (the relationships between them – the 12 times tables are double of the 6 times tables)	TTRS Counting Sticks Focus: 6s and 12s (the relationships between them – the 6 times tables are half of the 12 times tables)	TTRS Counting Sticks Focus: 6s and 12s (the relationships between them – the 6 times tables are half of the 12 times tables)		TTRS Counting Sticks: 12s (all multiples are even, the 0,2,4,6,8,0 pattern repeats through all the 12x tables (0, 12, 24, 36,48, 60…))

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Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures

Year 4 Maths Half Termly Planning

Spring 2	Week 1	Week 2	Week 3	Week 4	Week 5
Basic Skills / Daily Mental Maths	**Decimals** Recognise and write decimal equivalents to ¼ ½ and 3/4. *Recall Known Facts:* *25/100 = 0.25 = ¼* *50/100 = 0.5 = 2/4* *75/100 = 0.75 = 3/4*	**Known Facts – Halving** Half of 1000 = 500 Half of 500 = 250 Half of 300 = 150 Half of 100 = 50 Half of 50 = 25	**Partition to multiply mentally.** *13 x 4 =* *Partition 13 into 10 and 3.* *Multiply 10 x 4 = 40* *Multiply 3 by 4 = 12* *So… 40 + 12 = 52*	**Number** Count backwards through zero to include negative numbers.	**Investigations/Assessment Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge.
Maths Unit	**Fractions (Decimals)** Compare numbers with the same number of decimal places up to two decimal places.	**Geometry (angles)** Identify acute and obtuse angles. Compare and order angles up to two right angles by size.	**Multiplication** Revisit Multiplying two-digit and three-digit numbers by a one-digit number using formal written layout. Move on to multiplying together three numbers, including multiplying by 0 and 1.	**Statistics** Interpret and present discrete and continuous data using appropriate graphical methods (bar charts).	
Reasoning/ Problem Solving	Solve simple measure and money problems involving fractions and decimals to two decimal places.	Apply skills above in different contexts.	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.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.	
X tables	TTRS Counting Sticks *End of year target: recall multiplication and division facts for x tables up to 12x12.*	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks

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Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures

Year 4 Maths Half Termly Planning

Summer 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Basic Skills / Daily Mental Maths	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Investigations/Assessment Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge.	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**
Maths Unit	**Decimals** Round decimals with one decimal place to the nearest whole number. Compare numbers with the same number of decimal places up to two decimal places.	**Number (Roman numerals)** *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.*	**Fractions** Add and subtract fractions with the same denominator.	**Statistics** Interpret and present discrete and continuous data using appropriate graphical methods, revisit bar charts and introduce time graphs.		**Geometry** Describe positions on a 2-D grid as coordinates in the first quadrant. Describe movements between positions as translations of a given unit to the left/right and up/down
Reasoning/ Problem Solving Opportunities	Solve simple measure and money problems involving fractions and decimals to two decimal places.	Apply knowledge of Roman numerals in other contexts such as telling the time	**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.	**Solve** comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		**Plot** specified points and draw sides to complete a given polygon.
X tables	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**	**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**		**Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.**

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Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures

Year 4 Maths Half Termly Planning

Summer 2	Week 1 MTC testing	Week 2 MTC testing	Week 3 MTC testing	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	**Multiplication and Division** Recognise and use factor pairs and commutativity in mental calculations. *One factor of 36 is 4, what is its pair?*	**Multiplication and Division** Doubling and having numbers up to 4 digits.	**Investigations/Assessment Week** Allow children to apply skills they have been taught this half term through investigations and puzzles. Use NRICH investigations too, this is a valuable source of application and assessment as the children apply their knowledge.	2 Day Week – Revise units that the children need to revisit.
Maths Unit	**Review of the four calculations.**	**Geometry Review**	**Number Review.**	**Fractions Review**	**Statistics and Measures and Review**		
Reasoning/ Problem Solving Opportunities							
X tables	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	Prepare for MTC – use individual heat map grids to target the children in class. Times tables starters all this half term.	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks	

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Number and Place Value	Multiplication and Division	Addition and Subtraction	Fractions/Decimals	Geometry	Statistics	Measures