Year 6 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	***Using partitioning to add with increasingly larger numbers (move on to bigger numbers as needed)*** ***432 + 123 = 400 + 100 30 + 20 2+ 3***	***Number inside a number to calculate –*** *360-95 = 360 – 60 – 30 – 5* *Progress to larger numbers.*	***Count on a number line to subtract (move on to bigger numbers as needed).*** ***300 – 99 =*** ***99 + 1 = 100 100 + 200 = 300*** ***So… 200 + 1 = 201***	***Multiply by partitioning*** ***132 x 5 = 100 x 5 30 x 5 and 2 x 5*** *Progress to larger numbers.*	***Using known multiplication facts and inverse division facts to solve calculations*** ***7 x 5 = 35 70 x 5 = 350*** *Progress to larger 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.	**Measurement (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	**Number** Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit.	**Number** Round any whole number to a required degree of accuracy.	**Addition and Subtraction** Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	**Multiplication** Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication	**Division** Divide numbers up to 4 digits by a two-digit whole number using the formal written method of **long** division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context. .		**Multiplication and Division** Use their knowledge of the order of operations to carry out calculations involving the four operations
Reasoning/ Problem Solving	Solve number and practical problems that involve all of the above.		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.	Solve problems involving multiplication and division.	Solve problems involving multiplication and division.		Explore the order of operations using brackets; for example, 2 + 1 x 3 = 5 and (2 + 1) x 3 = 9.
X tables	TTRS Counting Sticks *Children should be secure with all of their tables up to x12 by the end of Year 4. Identify those who are not and target them through TTRS heat maps and daily recall.*	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks		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 6 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	**Multiples and Factors** *Identify common multiples and factors.*	**Multiplication** *Multiplying by 10, 100 and 1000. Model with a place value board.*	**Division** *Dividing by 10, 100 and 1000. Model with a place value board.*	**Multiplication and Division** *Multiplying and dividing by 10, 100 and 1000. Model with a place value board.*	**Addition** *Use near doubles to add* ***123 + 125 = 125 + 125 – 2*** *Progress to larger 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.	**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.*
Maths Unit	**Geometry** Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.	**Fractions** Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1.	**Fractions** Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.	**Measurement** Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places Convert between miles and kilometres.	**Statistics** Calculate and interpret the mean as an average. Interpret and construct pie charts and line graphs and use these to solve problems.		**Measurement (Area and Perimeter)** Calculate the area of parallelograms and triangles
Reasoning/ Problem Solving	Draw 2-D shapes using given dimensions and angles.	Solve problems involving the above.		Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.	Solve problems involving all of the above in different contexts.		Recognise when it is possible to use formulae for area of shapes Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison.
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Year 6 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	**Multiplication & Division** *Identify prime numbers.*	**Multiplication and Division** Recognise and use factor pairs and commutativity in mental calculations. *One factor of 36 is 4, what is its pair?*	**Fractions** *Find fractions of amounts.*	**Fractions** *Find percentages of amounts.*	**Fractions** 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*	**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.	***Roman Numerals*** *Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals.*
Maths Unit	**Geometry** Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes	**Division** Divide numbers up to 4 digits by a two-digit number using the formal written method of **short** division where appropriate, interpreting remainders according to the context.	**Fractions** Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.	**Fractions** Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, ¼ x ½ = 1/8] Multiply one-digit numbers with up to two decimal places by whole numbers.	**Fractions** Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6] Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]. Use written division methods in cases where the answer has up to two decimal places.		**Measurement** Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units [for example, mm3 and km3]
Reasoning/ Problem Solving	Solve problems involving missing coordinates.	Solve problems involving the above.	Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.		Solve problems involving multiplication and division.		Solve problems involving volume. Recognise when it is possible to use formulae for volume of shapes
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Year 6 Maths Half Termly Planning

Spring 2	Week 1	Week 2	Week 3	Week 4	Week 5
Basic Skills / Daily Mental Maths	**Known Facts – Halving** *Half of 1000 = 500* *Half of 500 = 250* *Half of 300 = 150* *Half of 100 = 50* *Half of 50 = 25* *Apply this pattern to larger numbers.*	***Partition to divide*** ***126 divided by 6 =*** *120 divided by 6 then* *6 divided by 6*	***Partition to multiply*** ***123 x 5 =*** *100 x 5* *20 x 5* *3 x 5* *Progress to larger numbers.*	**Square Numbers** Recognise and use square numbers numbers, and the notation for squared (2).	**Cube Numbers** Recognise and use cube numbers, and the notation for cubed (3).
Maths Unit	**Statistics** Use simple formulae Generate and describe linear number sequences. Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables	**Geometry** Recognise, describe and build simple 3-D shapes, including making nets **Geometry** Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius	**Number** Use negative numbers in context, and calculate intervals across zero.	**Four operations** Use their knowledge of the order of operations to carry out calculations involving the four operations. Perform mental calculations, including with mixed operations and large numbers Solve problems involving addition, subtraction, multiplication and division Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison. Explore the order of operations using brackets; for example, 2 + 1 x 3 = 5 and (2 + 1) x 3 = 9.	
Reasoning/ Problem Solving	Solve problems involving all of the above.	Draw shapes and nets accurately, using measuring tools and conventional markings and labels for lines and angles.	Solve problems involving interpreting graphs involving negative numbers.		
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Year 6 Maths Half Termly Planning

Summer 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Basic Skills / Daily Mental Maths	Revision and boosters based on gaps from previous SATs papers and daily AfL.			SATs Week	**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						
Reasoning/ Problem Solving Opportunities						
X tables	TTRS Counting Sticks *Children should be secure with all of their tables up to x12 by the end of Year 4. Identify those who are not and target them through TTRS heat maps and daily recall.*	TTRS Counting Sticks	TTRS Counting Sticks	TTRS Counting Sticks		TTRS Counting Sticks

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Summer 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Allow the children to apply what they have learnt so far in a variety of different ways and contexts:** • NRICH investigations and puzzles. • Address gaps in learning. • Year 6 Enterprise Project. • Maths Transition activities. • Daily Times Tables						**2 Day Week – Revisit Gaps in Learning**
Maths Unit							
Reasoning/ Problem Solving Opportunities							
Investigation Opportunities							
X tables	TTRS Daily Snappy Maths *End of year target: recall multiplication and division facts for x tables up to 12x12.*	TTRS Daily Snappy Maths	TTRS Daily Snappy Maths	TTRS Daily Snappy Maths	TTRS Daily Snappy Maths	TTRS Daily S.M.	

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