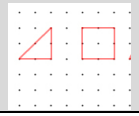
Year 3 Maths Half Termly Planning

Autumn 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Counting** Count from 0 in multiples 50 and 100. *Review counting in 5s and 10s. Discuss how multiples of 5, 10, 50 and 100 end in 0 or 5. Use counting sticks, hundred square and/or gattegno charts.*	**Partitioning** Partition numbers up to 1000 in as many different ways as possible. ***56** = 50 + 6, 25 + 25 + 6, 50 + 3 + 3…* *Progress to apply the above skill to 3 digit numbers.*	**Adding mentally** 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 numbers.*	**Subtracting mentally** Use number line to add on to subtract. Adding up to nearest tens. 87-25 = 25_____87 *Progress to apply the above skill to 3 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.*	**Counting** Count from 0 in multiples of 4. *Review counting in multiples of 2 and discuss the links – double 2 is 4. All multiples of 2 and 4 are even. Use counting sticks and hundred squares.*	**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.
Maths Unit	**Place Value** Place value of numbers up to three digits. Read and write numbers up to 1000 in numerals and words.	**Place Value** Compare and order numbers to 1000. Find 10 or 100 more or less than a given number.	**Addition** Add and subtract numbers **mentally**, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds	**Subtraction** Subtract numbers **mentally**, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds		**2D Shape** **Identify** right angles and recognise angles as a property of shape. **Draw** 2D shapes (use of dotted paper recommended). 	
Reasoning/ Problem Solving	**Identify,** represent and estimate numbers using different representations.	**Solve** number problems and practical problems involving these ideas.	**Solve** problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Estimate** answer to a calculation and use the inverse operations to check answers.	**Solve** problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Estimate** answer to a calculation and use the inverse operations to check answers.		**Describe** the properties of 2-D shapes using accurate language. **Identify** angles greater or lesser than a right angle.	
X tables	TTRS (x2,5,10 then 3,4,8) Counting sticks *End of year target: recall multiplication and division facts for the 2, 5, 10, 3, 4 and 8 times tables.*	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	

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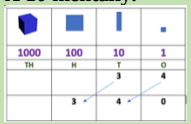
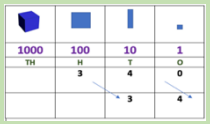
Daily Assessment – use oral evidence from the children in lessons to update maths assessment ladders.

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

Year 3 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	**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).*	**X 10 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.*	***Divide by 10***  *Children need to understand that the answer decreases in division. The Dienes and the 1, 10, 100, 1000 show visually what happens as the digits move right.*	**Use the inverse to divide.** *48 divided by 8 = ?* *8 x 8 = 48, so 48 divided by 8 = 8.*	**Time** *Read the time (digital) – 12 hour and 24 hour clock (opportunity to use mental addition/subtraction taught in Autumn 1)*	**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.	**2D Shape** *Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Flash various 2D shapes to the children and they answer on whiteboards or verbally.*
Maths Unit	**Measures (Perimeter)** Measure the perimeter of simple 2D shapes.	**Multiplication** *Write and calculate mathematical statements for multiplication using the multiplication tables that they know (3, 4 and 8), including for TO x O, using **mental** strategies*	**Division** *Write and calculate mathematical statements for division using the multiplication tables that they know (3, 4 and 8), including for TO x O, using **mental** strategies.*		**Fractions** *Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.*		**Fractions** *Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.*
Reasoning/ Problem Solving	Perimeter Inverse - If I know the perimeter of a square is 12cm. What is the length of each side of the square?	**Solve** problems including missing number problems involving multiplication, including positive interger scaling problems and correspondence problems which n objects are linked to m objects.	**Solve** problems including missing number problems involving division, including positive interger scaling problems and correspondence problems which n objects are linked to m objects.		**Solve** problems that involve all of the above.		**Solve** problems that involve all of the above.
X tables	TTRS (x2,5,10 then 3,4,8) Counting sticks *End of year target: recall multiplication and division facts for the 2, 5, 10, 3, 4 and 8 times tables.*	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks

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

Year 3 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	**Counting** Count from 0 in multiples of 8. *Review counting in multiples of 2 and 4. Discuss the links – double 2 is 4, double 4 is 8. All multiples of 2, 4 and 8 are even. Use counting sticks and hundred squares.*	**Multiples of 5.** *Count up and down, back and forwards in multiples of 5. Identify that multiples of 5 end only in digits 0 and/or 5. Use counting sticks and hundred squares.*	**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 digit numbers.*	**Review 'Adjusting to Subtract' mentally (-9 and -11 to start with) from Autumn 1 and develop this skill to subtract by 12 and so on.**	**Recognising multiples of 4** Multiples of 4 are even so always end with the digits 0, 2, 4, 6 or 8. To find the answer to a x4 calculation, double the number twice. 8x4 = 8x2= 16, 16x2=32	**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 multiplying and dividing by 10 from Autumn 2 then move on to multiplying and dividing by 100.**
Maths Unit	**Measures (Length)** *Measure, compare lengths add and subtract lengths (cm, mm, m).* *Measure and compare lengths (cm, mm, m) in different contexts (including curved lines, measuring objects and children's bodies).*	**Addition** Add numbers with up to three digits, using **formal written methods** of columnar addition.	**Subtraction** Subtract numbers with up to three digits, using **formal written methods** of columnar subtraction.		**Measures (Money)** Add and subtract amounts of money to give change, using both £ and p in practical contexts.		**Statistics** *Interpret and present data using bar charts, pictograms and tables.*
Reasoning/ Problem Solving	**Solve** worded problems applying all of the above.	**Solve** problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Estimate** answer to a calculation and use the inverse operations to check answers.	**Solve** problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. **Estimate** answer to a calculation and use the inverse operations to check answers.		**Apply** the above skills in worded problems. **Become fluent** in counting and recognising coins by adding and subtracting amounts, including mixed units, **Read** and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately. Decimal recording of money is introduced formally in year 4.		**Solve** one step and two step questions (for example, 'How many more? and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.

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

Year 3 Maths Half Termly Planning

X tables	TTRS (x2,5,10 then 3,4,8) Counting sticks *End of year target: recall multiplication and division facts for the 2, 5, 10, 3, 4 and 8 times tables.*	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks	TTRS (x2,5,10 then 3,4,8) Counting sticks		TTRS (x2,5,10 then 3,4,8) Counting sticks

Spring 2	**Week 1**	**Week 2**	**Week 3**	**Week 4**	**Week 5**
Basic Skills / Daily Mental Maths	**Double numbers up to 1000.** *Double 15…* *10 + 5: double 10 is 20, double 5 is 10, so 10 +20 = 30.* *Progress to apply the above skill to 3 digit numbers.*	**Halving numbers/recall known facts** *Partition to halve.* Half of 1000 = 500 Half of 500 = 250 Half of 300 = 150 Half of 100 = 50 Half of 50 = 25	**Dividing by 4.** *Encourage children to halve the number and halve again when dividing by 4.*	**Roman numerals (Leads on to Time in Summer 1).** *Recognise the value of I – XII*	**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	**Multiplication** *Revisit 'Write and calculate mathematical statements for multiplication using the multiplication tables that they know (3, 4 and 8), including for TO x O, using mental methods from Autumn 2 and* ***progress to formal written methods****.*	**Division** *Revisit 'Write and calculate mathematical statements for division using the multiplication tables that they know (3, 4 and 8), including for TO x O, using mental methods from Autumn 2 and* ***progress to formal written methods***		**Fractions** Add and subtract fractions with the same denominator within one whole (5/7 + 1/7 = 6/7).	
Reasoning/ Problem Solving	**Solve** problems including missing number problems involving multiplication, including positive interger scaling problems and correspondence problems which n objects are linked to m objects.	**Solve** problems including missing number problems involving division, including positive interger scaling problems and correspondence problems which n objects are linked to m objects.		**Continue** to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, and unit fractions as a division of a quantity. **Practise** adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.	
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Year 3 Maths Half Termly Planning

Summer 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Basic Skills / Daily Mental Maths	**Recognising multiples of 3** Any time we multiply by **3**, the digits in the answer will always add up to a multiple of **3**. For example: 8x**3** = 24, the 2 and 4 add up to 6, which is a multiple of **3.**	**Fractions** *Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. Link 5/10 with ½, discuss why they represent the same value.* *Model and count with counting sticks.*	**Review multiplying and dividing by 10 from Autumn 2 then move on to multiplying and dividing by 100.**	**Multiples of 8** To multiply by 8, you can double the number 3 times: 8x2 = 16 2x2 = 4, 4x2 = 8, 8x2 = 16	**Time** *Know the number of seconds in a minute, and the number of days in each month, year and leap year.*	**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.
Maths Unit	**2D Shape – Turns** Recognise angles as a property of a shape or a description of a turn. Recognise that two right angles make a half turn, three make three quarters of a turn and 4 right angles make a full turn.	**Fractions** Recognise and show, using diagrams, equivalent fractions with small denominators.	**Measures (Volume/capacity)** Measure, compare add and subtract volume/capacity (l/ml).	**Measures (mass)** Measure, compare add and subtract mass (kg/g)	**Time** Tell and write the time from an analogue clock, including using Roman numerals from I to XII.	
Reasoning/ Problem Solving Opportunities	Identify whether an angle is greater than or less than a right angle. Describe the properties of 2-D and 3-D shapes using accurate language, including lengths of lines and acute and obtuse for angles greater or lesser than a right angle.	**Compare** and order unit fractions, and fractions with the same denominators.	**Use** standard units of measurement with increasing accuracy, using their knowledge of the number system.	**Use** standard units of measurement with increasing accuracy, using their knowledge of the number system.	**Compare** durations of events (for example to calculate the time taken by particular events or tasks). **Estimate** and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	

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

Year 3 Maths Half Termly Planning

Summer 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
Basic Skills / Daily Mental Maths	**Geometry (3D shapes)** *Identify 2D shape faces on 3D shapes.*	**Review multiplying and dividing by 10 from Autumn 2 then move on to multiplying and dividing by 100.**	**Partition to multiply.** *13 x 4 =* *Partition 13 into 10 and 3.* *Multiply 10 x 4 = 40* *Multiply 3 by 4 = 12* *So… 40 + 12 = 52*	**Partition do divide.** *56 divided by 4 =* *Partition 56 into 40 and 16* *40 divided by 4 = 10* *16 divided by 4 = 4* *So… 10 + 4 = 14*	**Revise mental maths skills taught this year in various contexts.**	**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	**Geometry (3D shapes)** Make 3D shapes using modelling materials. Recognise 3D shapes in different orientations and describe them.	**4 Calculations Review**	**Geometry Review**	**Fractions Review**	**Measures Review**		
Reasoning/ Problem Solving Opportunities	Describe the properties of 2-D and 3-D shapes using accurate language, including lengths of lines and acute and obtuse for angles greater or lesser than a right angle.						
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