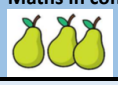
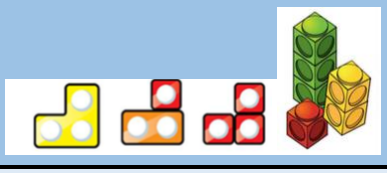
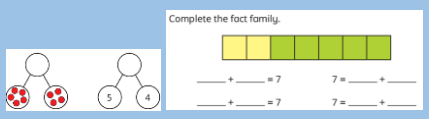
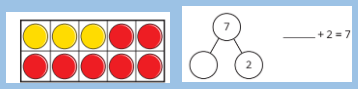
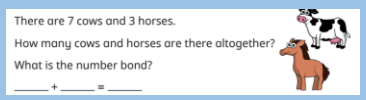
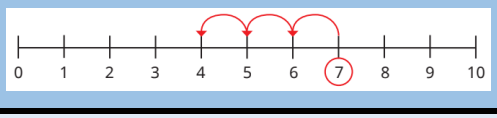
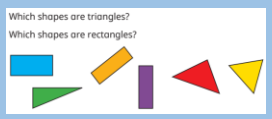
WILBURY MATHS CURRICULUM OVERVIEW – AUTUMN 2022

<table>
<tr><th></th><th>Autumn 1</th><th>Autumn 2</th></tr>
<tr><td>TWOs</td><td colspan="2">Building with blocks and construction resources
Number songs and rhymes, finger rhymes
Maths in everyday provision – sand , home corner etc.</td></tr>
<tr><td>Outcomes</td><td colspan="2">Combine objects like stacking blocks and cups
Show awareness and begin to enjoy number songs and rhymes
Enjoy finger rhymes e.g. round and round the garden
Start to develop counting like behaviour e.g. making sounds, pointing</td></tr>
<tr><td>Nursery</td><td colspan="2">Counting objects accurately
Number songs and rhymes, finger rhymes
Comparing amounts
Saying number names in order
Maths in continuous provision – sorting, matching, snack table etc.
  </td></tr>
<tr><td>Outcomes</td><td colspan="2">Begin to count objects accurately, touching objects and saying number names (one to one correspondance)
Join in with number rhymes and songs – show finger numbers to 3</td></tr>
<tr><td>Reception</td><td>Match, sort and compare amounts
Represent 1, 2 & 3
 </td><td>Compare 1,2 & 3
Composition of 1,2 & 3
Representing numbers 1 to 5
One more, one less
  </td></tr>
<tr><td>Outcomes</td><td colspan="2">Count to 5+ with one to one correspondence
Have an understanding of numbers to 5</td></tr>
<tr><td>Year 1</td><td>Place Value – Numbers to 10 (counting concrete and abstract things, write numerals to match a group of objects, counting on, find one more/one less, comparing, ordering, number line to 10)

 </td><td>Addition and Subtraction (part-whole model, number bonds within 10 and of 10, adding and subtracting within 10, commutativity of addition)
 
 
 

  </td><td>Shape (recognise, name and sort 3D and 2D shapes, make repeating patterns using known shapes)

  </td></tr>
<tr><td>Outcomes</td><td>Children can sort objects based on attributes. They can fluently count objects/sounds to 10 and can count out up to 10 objects from a larger group. They can recognise numbers as words. Children can count on from any number, staying within ten. They can find one more and count backwards to find one less. They can compare groups using ‘fewer, more, same’ and ‘less than, greater than, equal to’. They can order three groups of objects and numbers.</td><td>Children can put together two groups of objects to find a whole. They can use the + symbol to write an addition number sentence. They learn addition and then also subtraction fact families for numbers to 10, and the number bonds within 10 and of 10. They understand addition as combining two groups to make a whole and as adding more to a group. They use part-whole models to explore subtraction and understand subtractions as take away and use number lines to support subtraction as counting back.
Automaticity: Children know the numbers bonds for numbers within 10</td><td>Children can name simple 3D shapes – cubes, cones, cylinders, pyramids, cuboids and spheres. They can look at the 2D shapes on the faces of 3D shapes. They can sort 3D shapes using similarities and differences. Children can name 2D shape – triangles, squares, rectangles and circles.
Automaticity: Children recognise and name square, triangle, rectangle, circle, cuboid, cube, pyramid, sphere</td></tr>
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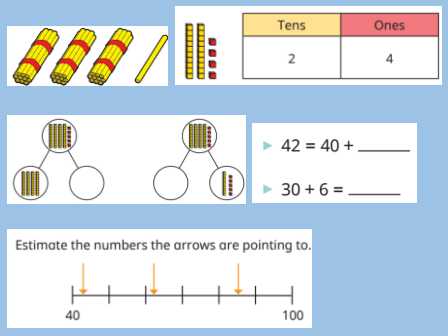
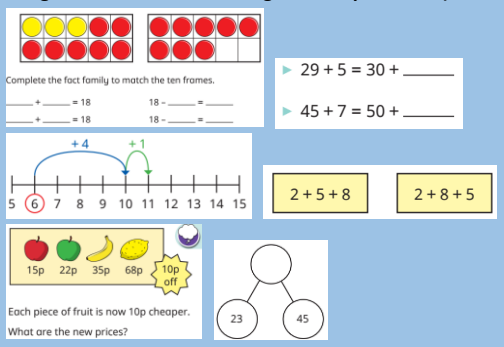
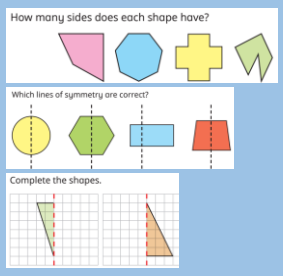
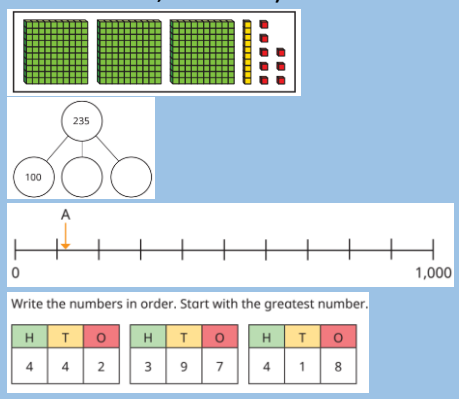
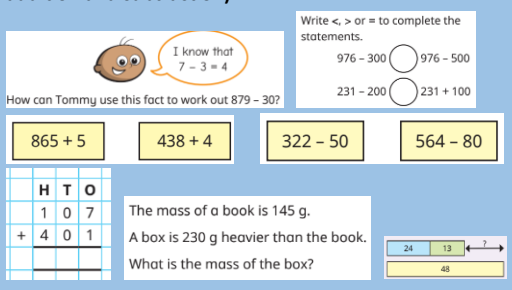
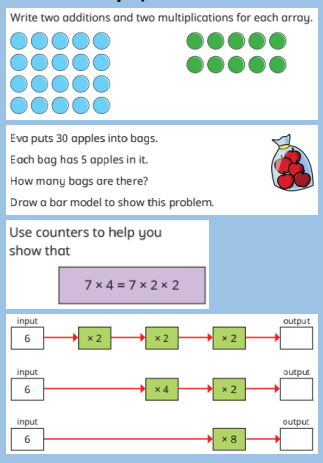
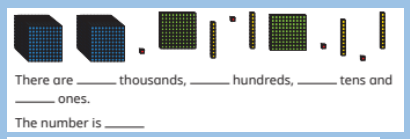
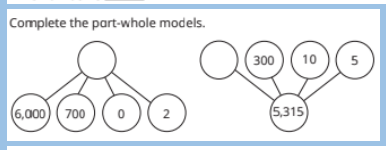
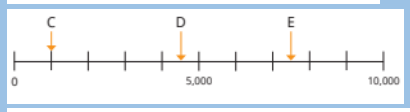
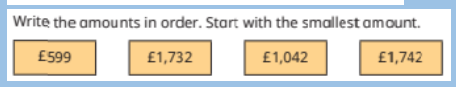
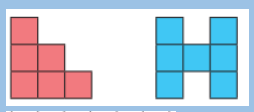
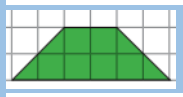
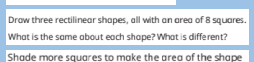
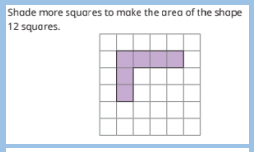
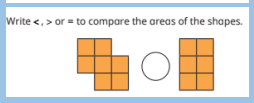
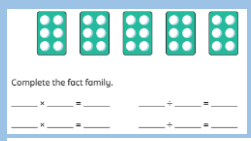
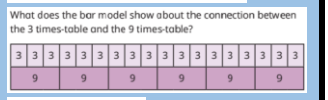
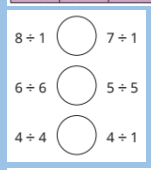
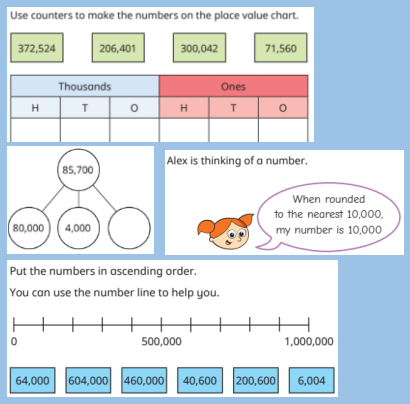
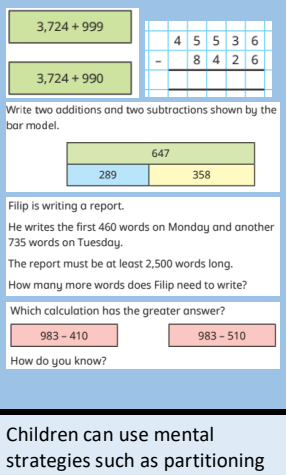
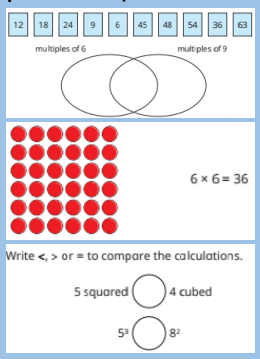
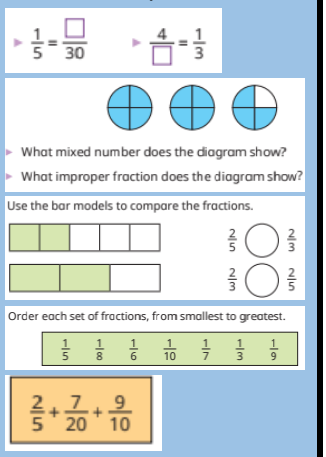
Year 2	**Place Value** (Use, read and write numbers to 100, count in 10s, recognise Tens and Ones on a place value chart, partition numbers to 100, recognise and use number lines, compare and order objects and numbers to 100, count in 2s, 5s and 10s, count in 3s) 	**Addition and Subtraction** (number bonds within and of 20 including addition and subtraction fact families, using related facts, bonds to 100, mental addition strategies, add three 1-digit numbers, add and subtract across a ten, subtract 1-digit from a 2-digit number, find 10 more and 10 less, add and subtract multiples of 10, add and subtract two 2-digit numbers, solve missing number problems.) 	**Shape** (recognise and understand the difference between 3D and 2D shapes, use properties of shapes (sides, vertices, faces, edges) to identify and sort, draw 2D shapes, identify and use lines of symmetry, patterns) 
Outcomes	Children consolidate numbers to 20 as words and numerals. They can count objects to 100 using groups of 10. They can use a place value chart for Tens and Ones and also partition numbers to 100 in different ways. They can write the numbers to 100 in words. They can use a number line divided into tens to estimate numbers using tens and ones. They can compare and order objects and numbers to 100 using correct language and symbols. They can count in 2s and 5s from a multiple of 2 or 5, and in 10s from any number. They can count in 3s (3 x table). Automaticity: Children count in tens from any number	Children consolidate the number bonds to 10 and move on to knowing number bonds to 20 and 100. They can use related facts to find larger calculations (eg 2 + 5 = 7 so 20 + 50 = 70). They use number bond knowledge for mental addition, such as jumping through ten. They can add two and then three 1-digit numbers. They can add and subtract across a ten using number bonds to make the next ten first. They can use visual support to subtract 1-digit from 2-digits. They can find 10 more and 10 less than any number and add and subtract multiples of 10. They can add and subtract two 2-digit numbers including crossing ten. Children can use their addition and subtraction knowledge to solve problems and compare calculations. Automaticity: Children know that addition and subtraction are inverses and so are multiplication and division	Children can recognise and name 3D and 2D shapes in any orientation. They extend their knowledge of shape names (eg octagon). They use the properties of 2D and 3D shapes to describe and sort them. They can identify vertical lines of symmetry and use them to draw shapes. They can make repeating patterns using shapes.
Year 3	**Place Value** (Use, read and write numbers to 1000, partition numbers to 1000, recognise Hundreds, Tens and Ones on a place value chart, find 1, 10 or 100 more or less, compare and order numbers to 1000, count in 50s) 	**Addition and Subtraction** (add and subtract up to 3-digit numbers with exchanges using a written method, add and subtract 1s, 10s and 100s mentally, solve problems and make connections, complements to 100, use rounding to 10 to estimate answer, understand the inverse relationship of addition and subtraction). 	**Multiplication and Division** (use arrays, understand commutativity, identify larger multiples of 2, 5 and 10, 3 x table, division as sharing and grouping, 4 x table, multiply and divide by 4, 8 x table, multiply and divide by 8) 

Outcomes	Children consolidate the Year 2 learning on 100 before moving on to numbers to 1000. They can partition numbers to 1000 in flexible ways and understand the structure of the place value chart to Thousands. They can find 1, 10 or 100 more or less than any number. They can use a number line to 1000 to find and estimate numbers. They can compare and order numbers to 1000 using the language 'greatest, smallest, ascending, and descending'. They can use the 5xtable to count in 50s.	Children use number bond knowledge to develop addition and subtraction skills further. They can add and subtract 1s and 10s to any number including 3-digit numbers. They can add and subtract 1s crossing 10s, and add 10s crossing 100s. They can add and subtract 100s. They can use these skills to investigate patterns and solve problems. They are confident in their number sense and can make explicit connections in their knowledge. They use rounding to estimate answers and compare calculations. They understand and use the inverse relationship between addition and subtraction.		Children understand the word 'equal' and the link between repeated addition and multiplication. They can use arrays to explore commutativity. They can identify larger multiples of 2, 5 and 10 and decide if a number is even or odd. They can multiply and divide by 3 using the 3 x table. They can use the 2 x table to help multiply by 4 (double and double again) and divide by 4 (halve and halve again). They know the 4 x table. They learn the 8 x table by linking it to the 4 x table. Automaticity: Children know the halves and doubles of numbers to 20 and the multiplication and division facts for the 3, 4 and 8 x table.
Year 4	**Place Value (Consolidating understanding of numbers to 1000 through representing, partitioning and using number lines. Count in 1000s, represent numbers to 10,000, partition numbers in flexible ways, find 1, 10, 100, 1000 more or less, estimate/identify numbers on a number line to 10,000, compare and order numbers, know Roman numerals to 100, round to the nearest 10, 100 and 1000)**    	**Addition and Subtraction (add and subtract multiples of 10, 100 or 1000 mentally to up to 4-digit numbers. Use written method to add two numbers up to 4-digits with multiple exchanges. Use written method to subtract two numbers up to 4-digits with multiple exchanges, use rounding to estimate and check answers)** 	**Measurement – Area (know that area is the amount of space taken up by a 2D shape/surface, find the area of 2D shapes using squares, draw shapes with a given area, compare areas of shapes)**     	**Multiplication and Division (6 x table, multiply and divide by 6, 9 x table, multiply and divide by 9, 7 x table, multiply and divide by 7, 11 and 12 x tables, multiply and divide by 1 and 0, divide a number by 1 and itself, multiply three numbers)**   
Outcomes	Children consolidate numbers to 1000 and then move to numbers beyond 1000. They can explore the place value of numbers beyond 1000 up to 10,000. They can partition numbers to 10,000 in flexible ways. They can use place value to find 1, 10, 100 and 1000 more or less than any given number. They can use number lines to represent and estimate numbers. They can compare and order numbers to 10,000. They can round numbers to the nearest 10, 100 and 1000. Children can read and write Roman numerals to 100. Automaticity: Children know the number bonds to 100. Children can say 1000 more or less than any number. Children can read Roman numerals to C.	Children can mentally add 1, 10, 100 or 1000 to any number. They can use the formal written method to add two numbers up to 4-digits, including with multiple exchanges. They can subtract two 4-digit numbers, including with multiple exchanges. They can identify the most efficient method (mental or written) to solve a calculation. They can use estimating to check answers.	Children understand what area is measuring. They can find the area of a 2D shape by counting squares. They can draw shapes with a given area and understand the word 'rectilinear'. They can compare the areas of two shapes.	Children consolidate multiples of 3 and then use the 3 x table to know the 6 x table. They understand that multiplication is commutable. They know the division facts as well as the multiplication facts. They know the 9x table and understand how it links to the 3 and 6 x tables. They know the 7, 11 and 12 x tables. They know what happens when you multiply by 1 or 0. They know the difference between dividing a number by 1 and dividing it by itself. They know that when they multiply three numbers they can do it in any order (associative law). Automaticity: Children know the multiplication and division facts for the 6, 9 and 11 x table.

Year 5	**Place Value** (Roman numerals to 1000, numbers to 100,000 and then 1,000,000, understand the place value chart as powers of ten, find up to 100,000 more or less than a given number, partition numbers in flexible ways, compare and order numbers to 1,000,000, round to the nearest 10, 100, 1000, round within 100,000 and then 1,000,000) 	**Addition and Subtraction** (mental strategies, written method for whole numbers with more than 4 digits, use rounding and inverse to check answers, solve multi-step problems, compare calculations, find missing numbers) 	**Multiplication and Division** (find sets of multiples and common multiples, find factors, factor pairs and common factors, prime numbers, square numbers, cube numbers, multiply and divide by 10, 100, 1000, multiply multiples of powers of 10) 	**Fractions** (find and recognise equivalent fractions, convert improper fractions to mixed numbers and vice versa, compare and order fractions, add and subtract fractions including mixed numbers.) 
Outcomes	Children can read and write Roman numerals including 1000s (dates). They can read and write numbers to 1,000,000. They can partition numbers and identify the place value of digits. They can find any power of ten – up to 100,000 – more or less than any number. They can partition numbers to 1,000,000 in flexible ways. They can compare and order numbers to 1,000,000. They can round numbers to any given power of 10. Automaticity: Children count in powers of 10. Read Roman numerals to M.	Children can use mental strategies such as partitioning and number bonds to add and subtract numbers. They use written methods to add and subtract numbers with more than 4 digits. They use rounding and the inverse to estimate and check answers. They can solve multi-step problems. They can compare calculations using reasoning and find missing numbers eg by using inverse.	Children understand the term 'multiple' and use it to find sets of multiples and then common multiples for a pair of numbers. They understand the term 'factor' and find factors, factor pairs and common factors of numbers. They understand the term 'prime number' and know the prime numbers to 20. They understand the term 'square numbers' and know the square numbers to 12 x 12. They understand the term 'cube numbers' and can use square numbers to help find them. They can multiply and divide by 10, 100 and 1000 using place value knowledge. They can multiply and divide multiples of 10, 100 and 1000, eg 18,000 ÷ 200) Automaticity: Children know the prime numbers within 20 and square numbers up to 12 x 12. They know and use the terms factor and multiple. Children recognise notation for squared and cubed.	Children can find and recognise equivalent unit and non-unit fractions. They can convert improper fractions into mixed numbers and vice versa. They can compare and order fractions using equivalences where needed and including fractions greater than 1. They can add and subtract fractions by finding a common denominator when needed. They can add and subtract mixed numbers.
Year 6				
Outcomes		Automaticity: Children know the equivalences between fractions, decimals and percentages: $\frac{1}{2} = 0.5$ $\frac{1}{4} = 0.25$ $\frac{3}{4} = 0.75$ $\frac{1}{10} = 0.1$ $\frac{1}{5} = 0.2$ $\frac{3}{5} = 0.6$ $\frac{9}{10} = 0.9$ $\frac{1}{100} = 0.01$ $\frac{7}{100} = 0.07$ $\frac{21}{100} = 0.21$ $\frac{75}{100} = 0.75$ $\frac{99}{100} = 0.99$	