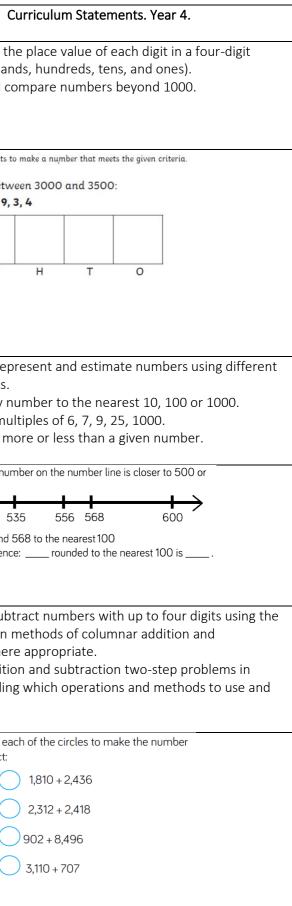


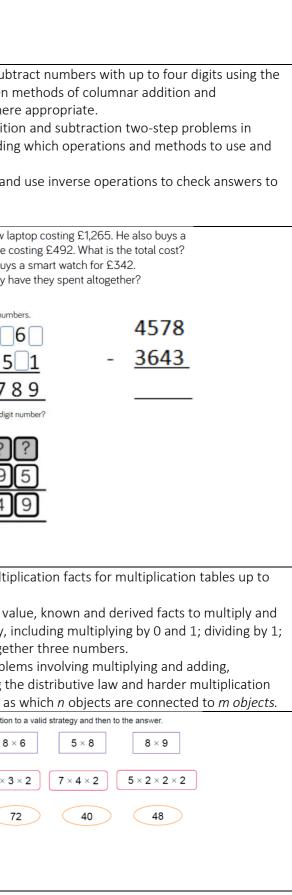


Week.	Mathematical aspect	Non-negotiable end points Year 3.	Non-negotiable end points Year 4.	Curriculum statements – Year 3.	C
1.	Number and place value: properties of place value,	Knows the properties of place value for three-digit numbers.	Knows the properties of place value for four-digit numbers.	 To recognise the place value of each digit in a three-digit number (hundreds, tens, ones). To compare and order numbers up to 1000. To read and write numbers up to 1000 in numerals and in words. 	 To recognise the number (thousand To order and co
Links to resources and Postional The 4 is worth 400 Additive 400 + 60 + 7	467 Base 10 Base 10 The 4 is worth 4 467 Base 10 Base		n 3 6 1 9 3x1000 6x100 1x10 9x1 .	400 + 90 + 2 492 Four hundred and ninety two 500 + 40 + 7 547 Five hundred and forty seven 200 + 4 204 Two hundred and four	Arrange the given digits to Betwe 2, 9, 3
2.	Counting and estimating	Knows how to count in step sizes and estimate numbers up to 1000.	Knows the rules of rounding.	 To count from 0 in multiples of 4, 8, 50 and 100, finding 10 or 100 more or less than a given number. To identify, represent and estimate numbers using different representations 	 To identify, repr representations. To round any nu To count in mult To find 1000 mc
Say ten more 20 21 22 23 24 25 26 27 28 29 20 21 29 33 	Say 100 more 5 5 5 5 7 3 3 9 6 4 6 6 4 6 6 6 6 8 6 8 6 9 1 4 5 7 7 7 7 7 7 7 7 7 7 6 6 6 6 67 6 69 79 7 72 73 74 75 79 77 78 79 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		0 70 80 90 100 110 	Continue the pattern 4, 8, 12, 16 8, 16, 32 0, 50, 100, 150 Complete the pattern 100 200 400 100 100 100 200 400 100 100 100	Say whether each num 600. 500 53 Round 535, 556 and 5 Use the stem sentence
3.	Addition and Subtraction: mental methods	Knows bonds to 20 and 100. Knows how to add/subtract multiples of 10, 100 from three- digit numbers.	Knows efficient methods for addition and subtraction up to and including four-digit numbers.	 To add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and hundreds. To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. 	 To add and subtraction written m subtraction where To solve additio contexts, deciding why.
Links to calculation po Near doubles 13+14 = Double $13=26$ 26+1=27 or Double $14=28$ 28-1=27 Using known facts 40 + 80 = 120 using $4 + 8 = 12So, 400 + 800 = 1200Remodelling strategy243 + 198241 + 200 = 441$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	100	Which digit changes and which stay the same? 543 + 1 543 - 1 543 + 10 543 - 10 543 + 100 543 - 100 376 + 4 695 + 8 376 + 20 695 + 30 376 + 400 695 + 600	Write <, > or = in eac sentences correct: 3,456 + 789 2,829 + 1,901 7,542 + 1,858 1,818 + 1,999

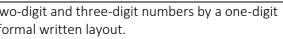




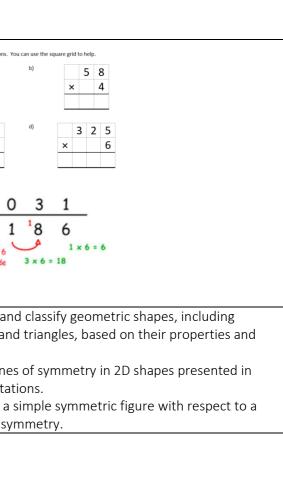
3	Addition and Subtraction: ten methods 2 and digit numbers, plumn methods.	Knows how to calculate with columnar methods.	Knows efficient methods for addition and subtraction up to and including four-digit numbers.	 To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction. To estimate the answer to a calculation and use inverse operations to check answers. To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction. 	 To add and subtrefficient written m subtraction where To solve addition contexts, deciding why. To estimate and a calculation.
Links to resources and policy	v documents:				Daniel buys a new lapt
625	Exchange from tens to ones, hundreds to tens tens			Show how to add and subtract these numbers with 324. 675 43 900 127 100 10 10 10 10 10 10 10 10 1	new mobile phone cos His friend, Paul, buys a How much money hav Complete the missing number 4 6
Regroup the 10 4 9 2 4 + 3 7 9 3 8 7 1 7 1 1	- <u>-</u> 2 5	7 ¹ 5 8 ⁶ ¹ 4 4 9 8 3 6 6		Which method? 400 + 300 600 - 200 400 + 300 4134 492 + 36 429 492 - 236 What are the missing digits? -134 429	+25 78 What is the missing four digit num ???? + 6396 8949
	ultiplication and division: Table facts nental methods.	Knows the 2, 4- and 8- times tables and the doubling patterns. Knows how to multiply using partitioning.	Knows and applies table facts for recall of multiplication and division facts for multiplication tables up to 12 × 12.	 To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental methods. 	 To recall multipli 12 × 12. To use place valu divide mentally, ind multiplying togethe To solve problem including using the problems such as w
Links to resources and policy		x 8 9 x	es by working out the missing digits.	$3 \times 4 \times 2 = 24$ Jane did 3 x 4 then doubled for x2. James did 4 x 2 = 8, then 8 x 3. $ \begin{array}{r} \hline \\ (2 \times 3) \times 4 = 2 \times (3 \times 4) \\ (2 \times 4) \times 4 \times 4 \\ (2 \times 4) \times $	3) Match each calculation to 7×8 8×6 $9 \times 4 \times 2$ $8 \times 3 \times 5$ 56 72



				1	
$7 \times 9 = 63$ $9 \times 7 = $ $63 \div = 9$ $\div 9 = 7$					
6.	Multiplication and division: written methods partitioning and rearranging the dividend	Knows how to partition numbers when multiplying. Knows how to rearrange dividends into multiples of the divisor.	Knows how to multiply/divide two-digit and three-digit numbers by one-digit numbers using expanded or formal written methods of short multiplication and division.	 To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Explain the effect of multiplying by 10 and multiples of 10 To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <i>n</i> objects are connected to <i>m</i> objects. 	 To multiply two- number using form To solve problen including using the problems such as v
Links to resources and Grid method Short mult $23 \times 8 =$ Expanded $20 \times 8 = 160$ $3 \times 8 = 24$ 23 $23 \times 8 = 184$ 24 (8 x3) $\boxed{\times 20 3}$ 160 (8 x20 8 184	tiplication a Rearranging the dividend to find multiples of the divisor. 48 + 3 = "What do I know about the 3 x tables?" "I knows 3 x 10 = 30 and 3 x 6 = 18." a b a b b a b a b a b b b a b a b b b b b a b b b b b b b b b b c d d d d d d d d d d d d d	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0 7 1 0	Using known facts If $3 \times 2 = 6$, then $30 \times 2 = 60$, $60 \div 3 = 20$ and $30 = 60 \div 2$. Partitioning Informal recording of partitioned numbers $15 \times 5 = 75$ $10 \times 5 = 50$ $5 \times 5 = 25$ 14×5 10×5 10×5	1. Work out the following calculations. You of a) 6 7 x 5 c) 2 4 4 x 3 3 3
		Fight and to and-stand that 9 to 10 pina outro motion has not adopted in the L 123 4 492		Solve these equationsSolve these equations $75 \times 5 =$ $95 \div 5 =$ $36 \times 4 =$ $56 \div 4 =$ $22 \times 8 =$ $84 \div 2 =$	$186 \div 6 = 0$ $6 1$ no groups of 6 can be made
7.	Geometry: properties of shape, 2D and 3D	Know the mathematical names and properties of 2d and 3d shapes including parallel and perpendicular lines.	Knows how to describe and classify shapes using mathematical properties.	 To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy. To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines. 	 To compare and quadrilaterals and sizes. To identify lines different orientation To complete a si specific line of symmetric
2 7 Is it a polygor 3 8 Is it a regular 4 9 Are there any Are there any Are there any Are there any Are there any Yes Are there any Yes Are there any Yes Yes	of the shape? pe is it and what are the properties of the shape?	90* Right angle	90° Parallel Perpendicular	ShapeNumber of sidesNumber of right anglesPairs of parallel linesSquare442Rectangle442Triangle310Pentagon500Hexagon600	

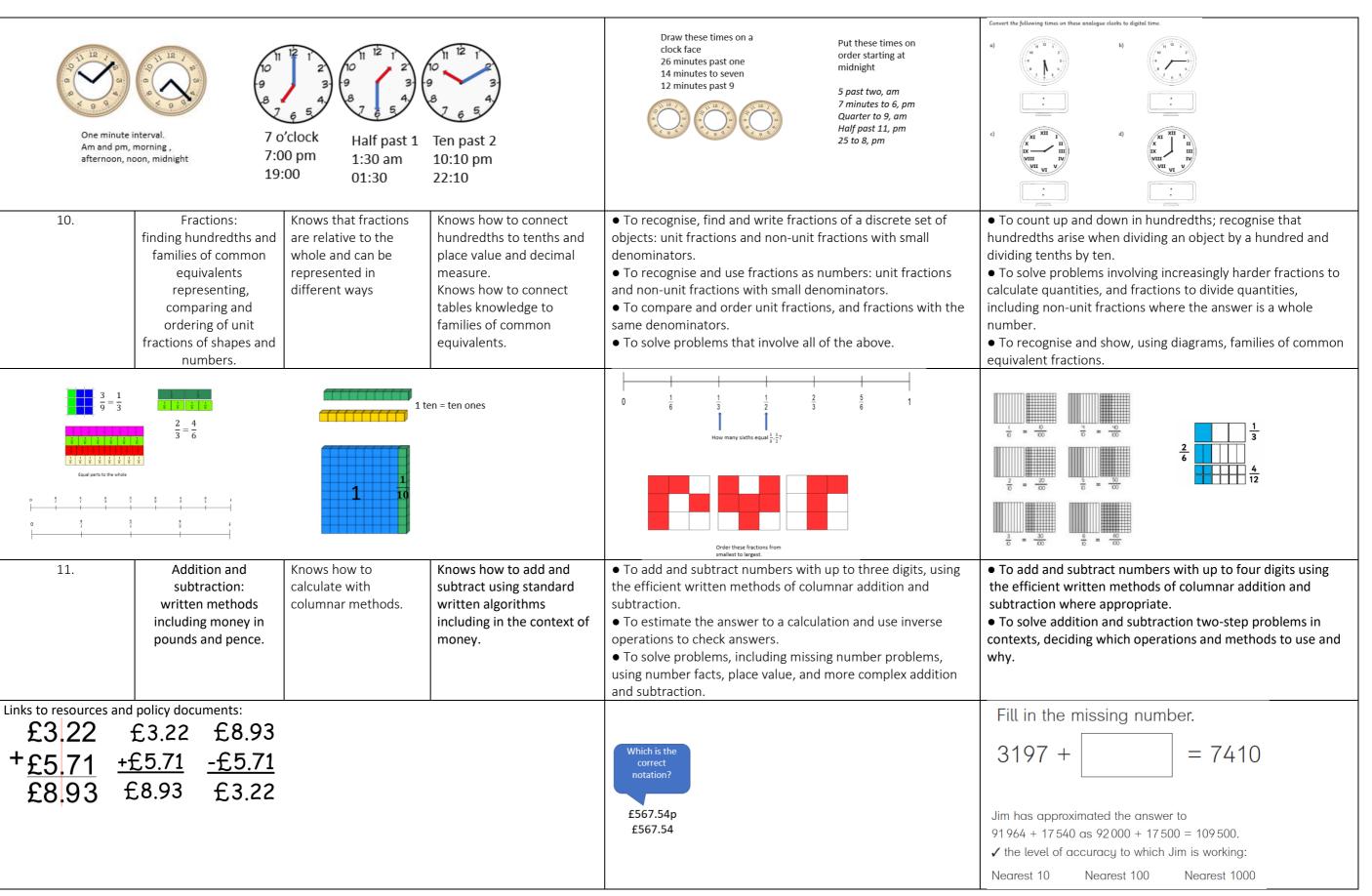


- lems involving multiplying and adding,
- the distributive law and harder multiplication
- as which *n* objects are connected to *m objects*.



			Try to draw a triangle for each section of the table.		
			Scalene Isosceles Equilateral		
			Has a right angle Not possible		
		ShapeFacesEdgesVerticesCube6128Cuboid6128Cone101Cylinder200	No right angle		
8. Measurement: converting between units of measure	Knows the relationships between the units of measure for each aspect.Knows how to multiply and divide to convert between units of measure.		 To convert between different units of measure (for example, kilometre to metre; hour to minute). To estimate, compare and calculate different measures, including money in pounds and pence 		
Links to resources and policy documents: A bag of sugar v would half the bag 1m 100 cm 1cm 10 mm		Use <, > or = 250g $\frac{1}{4}$ of 1kg 600ml $\frac{1}{2}$ 1 litre 743m $\frac{1}{2}$ of km Make the scale balance $\frac{1}{4} = 40g$ $\frac{1}{2} = 25g$ $\frac{1}{2} = 10g$	List in order, starting with the shortest distance. 5 km 5 km 400 m 5 1/2 km 500 m 5 m 5 km 400 m 5 1/2 km 500 m 5 m 5 m 5 m 5 km 400 m 5 1/2 km 500 m 5 m 5 m 6 m 5 m 6 m 5 m 7 m 5 m 7 m 5 m 8 m 5 m 9 m 5 m 9 m </td		
1 kg1000g1 l1000ml22 cm35 cm22 cm35 cmHow long is the last strip?	j. ?	200ml are poured from 0 1000mm the jug. How much is would be on the scale.	1.5 cm=mm $1.5 m$ =cm $1.5 km$ =m		
9. Measurement: Time 12-hour clock am/pm	Knows how to read the time to the nearest minute.Knows how to read, write and convert time between analogue and digital 12- and 24-hour clocks.Knows that the 12- hour clock can represent am or pm. Knows the passing of time can be calculated as time durations.Knows how to read, write and convert time between analogue and digital 12- and 24-hour clocks.	 To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as am/pm, morning, afternoon, noon and midnight. To know the number of seconds in a minute and the number of days in each month, year and leap year. To compare durations of events, for example to calculate the time taken by particular events or tasks 			

Tilstock





Using £ notation and the decimal point £ 678.00 <u>- £ 126.00</u> 752.00	Lining up the place value. f 345.00 + f 1 62.98 407.98			Dan buys two presents. How much change does he get from £10? Show your working.	If we know 3,450 + 4 subtraction facts do w You have £5. 70 in your p another £6.40.
					How much money do you r
12.	Geometry: Position and direction	Knows how to describe position and movement using right angles for quarter turns.	Knows how to draw a pair of axes in one quadrant, with equal scales and integer labels. Knows how to read, write and use pairs of coordinates.	To describe position and movement using clockwise, anti- clockwise, left and right. (Last met in Y2) To describe position and movement using the correct terms	 To describe posiquadrant. To plot specified polygon.
90° Right angle	Stick man has moved two right angles clockwise. How many $\frac{1}{4}$ turns ?	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		The arrow has moved a half turn clockwise, two right angles.	3. Katrina has marked three p Richard says, <i>"You can make a square if</i> <i>at (3, 6</i> Is Richard correct? How do
		1 2 3 4 5 Write the coordinates A(,) B(,) C(,) D(,) E(,) F(,)		angles.	
13.	Statistics: read, present and interpret pictograms and tables Discrete and continuous data	Knows how to read varying representations of discrete data. Knows how to use a simple scale.	Knows how to correctly present data using appropriate graphical methods	 To interpret and present data using bar charts, pictograms and tables To solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables. 	 To interpret and appropriate graph graphs. To solve compa information prese simple line graphs
Links to resources and		1	1	The bar graph shows how many visitors from Thursday to Monday at the campsite.	A Bar Chart to Show <u>the Hi</u> 40 40 30 20 20 10 10 London Label: Which capital city had the Which two capital cities had

