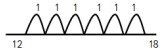
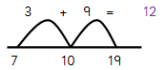
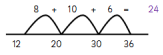
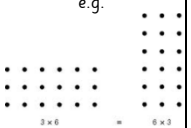
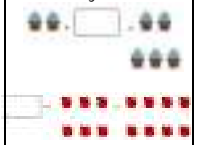
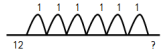
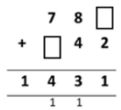
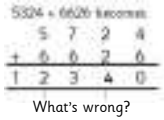
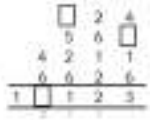
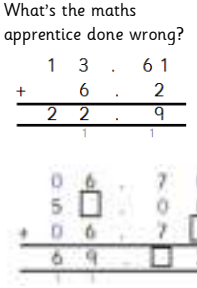
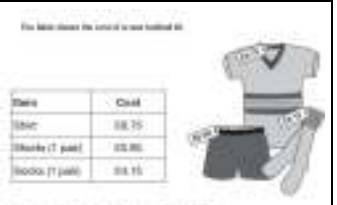
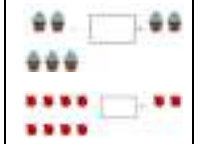
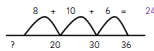
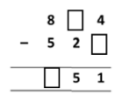
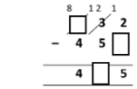
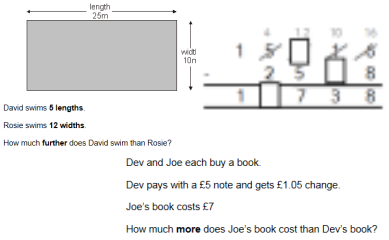
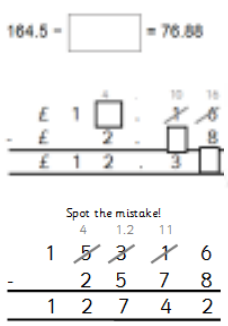
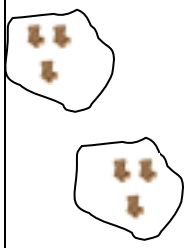
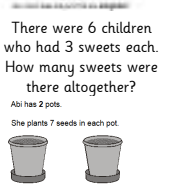
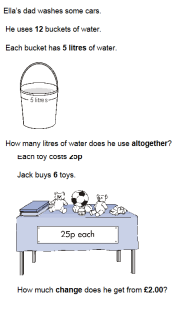
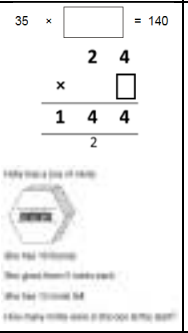
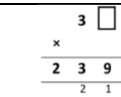
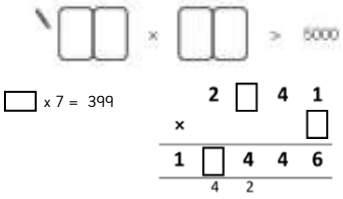
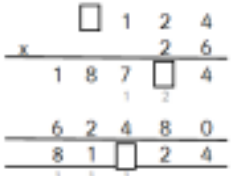
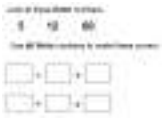
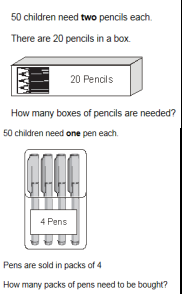
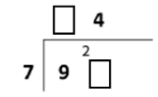
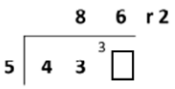
Statements from the curriculum. Method for calculation	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
+ Addition, total, altogether, sum of, add, plus, increase, more than, count on.	Find the total number of items in two groups by counting all of them. Find one more or one less from a group of up to 10 objects. In practical activities and role play use the vocabulary involved in adding and subtracting. Start to record pictorially.	Add 1 digit and 2 digit numbers to 20 including 0. Represent and use number bonds within 20. Introduce recording vertically if ready. 12 + 6 = 18  17 + 12 = 29 10 +10 =20, 7 +2 = 9	Show addition of 2 numbers can be done in any order. Introduce simple column method (2 digits +1/2 digits) 4 4 + 3 5 7 9	Column (up to 3 digits) 789 + 642 becomes 7 8 9 + 6 4 2 1 4 3 1 1 1 Answer: 1431	Column (up to 4 digits) 5324 + 6626 becomes 5 7 2 4 + 6 6 2 6 1 2 3 5 0 1 1	Column (more than 4 digits, more than 2 numbers) 5324 + 6626 becomes 5 7 2 4 + 6 6 2 6 1 2 3 5 0 1 1 724 + 562 + 4211 + 6626 becomes 7 2 4 5 6 2 4 2 1 1 + 6 6 2 6 1 2 1 2 3 2 1 1	Column (move onto decimals, different number of digits using '0' to fill any gaps, etc) £ 6 . 7 0 £ 6 . 0 0 + £ 6 . 7 3 £ 1 9 . 4 3 1 1 6.7 + 56 + 6.73 becomes 0 6 . 7 0 5 6 . 0 0 + 0 6 . 7 3 6 9 . 4 3 1 1
− Take away , minus, decrease, less than, subtract, find the difference, count back	Find one more or one less from a group of up to 10 objects. In practical activities, use the vocabulary involved in adding and subtracting. Start to record pictorially.	Subtract 1 digit and 2 digit numbers to 20 including 0. Represent and use related subtraction facts for number bonds within 20. Count on using a number line. 19 - 7 = 12 	Recognise subtraction of cannot be done in any order. Use pictorial or concrete objects. 36 – 12 = 24  Introduce simple column subtraction. 4 7 - 3 5 1 2	Column (up to 3 digits) 874 – 523 becomes 8 7 4 – 5 2 3 3 5 1 Answer: 351	Column (up to 4 digits) introducing 'exchanging' 932 – 457 becomes 8 12 1 9 3 2 – 4 5 7 4 7 5 Answer: 475	Column (more than 4 digits) 15316 - 2578 becomes 4 1.2 10 16 1 5 3 1 6 - 2 5 7 8 1 2 7 3 8	Column (move onto decimals, different number of digits, etc) £15.16 - £2.78 becomes 4 10 16 £ 1 5 . 1 6 - £ 2 . 7 8 £ 1 2 . 3 8
× Multiply, multiplied by, product, times, lots of, groups of.	Record using marks they can interpret and explain. Begin to identify own mathematical problems based on own interests and fascinations	Start to use arrays: e.g. Solve one step problems using concrete objects and pictoral representations.	Calculate statements for multiplication within the times tables and record using x and =. Use arrays (see Y1), repeated addition (3 + 3 + 3 + 3 = 12) and x table facts.	Mental moving to formal: grid or short. (2 digit x 1 digit). 24 × 6 becomes 2 4 × 6 1 4 4 2 Answer: 144	Short multiplication (2/3 digits by one digit) 342 × 7 becomes 3 4 2 × 7 2 3 9 4 2 1 Answer: 2394	Short and long multiplication (4 digits by 1 or 2 digits) 2741 × 6 becomes 2 7 4 1 × 6 1 6 4 4 6 4 2 Answer: 16 446 24 x 16 becomes 2 4 x 1 6 1 4 4 2 2 4 0 3 8 4	Long multiplication (4 digits, by 2 digits, including decimals). For decimals, ignore the decimal point, calculate as normal, then count how many digits altogether in the calculation after the decimal point. Place the point in your answer at the end so you have the same number of digits after the decimal point. Estimation is key to checking answers are accurate! 3124 x 26 becomes 3 1 2 4 x 2 6 1 8 7 4 4 1 2 6 2 4 8 0 8 1 2 2 4 1 1 1 24 x 1.6 becomes 2 4 x 1 6 1 4 4 2 2 4 0 3 8 . 4
Times table focus			**2 x, 5 x and 10 x**	**3 x, 4 x, 8 x**	**All x tables up to 12 x 12**	**Children should be fluent and secure with all x tables and use these efficiently.**	**Children should be able to adapt x tables confidently to calculate 0.6 x 9, 70 x 5, 50 x 90, 80 x 0.7, etc.**
÷ Divide, divided by, share equally, factors, remainder, quotient. How many times will it fit into...? How many 3s in?	Record using marks they can interpret and explain. Begin to identify own mathematical problems based on own interests and fascinations	Start to use arrays: e.g.  Solve one step problems using concrete objects and pictoral representations.	Calculate statements for division within the times tables and record using ÷ and =. Recognise that division of two numbers cannot be done in any order. Link methods above for multiplication to division.	Calculate statements for division within the times tables and record using ÷ and =. Recognise that division of two numbers cannot be done in any order. Reinforce Y2 methods.	Short division (2/3 digits by one digit) 98 ÷ 7 becomes 1 4 7 9 8 2 Answer: 14	Short. Interpret remainders appropriately for the context. (4 digit by one digit) 432 ÷ 5 becomes 8 6 r2 5 4 3 3 2 Answer: 86 remainder 2 496 ÷ 11 becomes 4 5 r1 1 1 4 4 5 6 Answer: $45\frac{1}{11}$	Short and long. Interpret remainders as whole number remainder, fraction, decimal or by rounding. (3/4 digit ÷ 2 digit) 0 2 8 r12 15 4 4 3 13 2 Children will need to list multiples of 15 if choosing to solve using the short method. 432 ÷ 15 becomes 2 8 1 5 4 3 2 3 0 0 15×20 1 3 2 1 2 0 15×8 1 2 $\frac{12}{15} = \frac{4}{5}$ Answer: $28\frac{4}{5}$ 432 ÷ 15 becomes 2 8 . 8 1 5 4 3 2 . 0 3 0 1 3 2 1 2 0 1 2 0 0 Answer: 28.8

Problem solving examples for each operation.	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
+ Addition, total, altogether, sum of, add, plus, increase, more than, count on.	7 teddies were at the picnic. If 1 more arrived, how many were there altogether? 	7 + ☐ = 9 ☐ + 12 = 19 8 doughnuts were in the bakers shop. 7 more were added to the box. How many doughnuts were there altogether? 	 47 children went to watch the school play. 35 children were performing in it. How many children were there in total? 26 + ☐ = 41	789 + ☐ = 1431 789 chocolate bars were in the stock cupboard. 642 more were added. How many chocolate bars were there now? 	 What's wrong? 5324 football fans went to watch Burnley. The crowd increased by a further 6626 people. How many were watching the match? ☐ + 4530 = 6789	19 672 stars were visible at 7pm. By 11pm, a further 6879 could be seen. How many could be seen altogether at 11pm?  89455 + ☐ = 93675 Mr Wright ran 2905 metres. Mr Mac ran a further 1567 metres. How far did Mr Mac run in km? ☐ + 8763 = 12764	What's the maths apprentice done wrong?   56.4 km + ☐ = 85.7km
− Take away , minus, decrease, less than, subtract, find the difference, count back	9 teddies were at the picnic. If 1 teddy went home, how many were left? 	11 bottles were balanced on the wall. If 8 got smashed, how many were left? 17 - ☐ = 11 ☐ - 13 = 6 15p + 13p = 28p	 ☐ - 26 = 43 349 chocolate bars were on the shop shelf. 36 were eaten. How many were left?  36 - ☐ = 24	 673 - ☐ = 562 	 ☐ - 389 = 296 7631 - ☐ = 980 On Monday, there were 379 carrots in the school kitchen. By Friday, there were only 63 left. How many had been used throughout the week?	Seb bought 2 apples and 3 pears. He spent £1.59 altogether. Apples cost 24p each. How much does **one** pear cost?  A rectangular swimming pool is 25 metres long and 10 metres wide. David swims **5 lengths**. Rosie swims **12 widths**. How much **further** does David swim than Rosie? Dev and Joe each buy a book. Dev pays with a £5 note and gets £1.05 change. Joe's book costs £7 How much **more** does Joe's book cost than Dev's book?	 Spot the mistake! Rosie buys a pair of trainers and a pair of sandals. How much change she gets from **£50**?
× Multiply, multiplied by, product, times, lots of, groups of, altogether.	Sort bears into groups of three:  Each garden had 3 bears in it. How many was this altogether?	 There were 6 children who had 3 sweets each. How many sweets were there altogether?  How many seeds does she plant altogether?	 How many litres of water does he use **altogether**? Each toy costs **£20** Jack buys **6** toys. 25p each How much **change** does he get from **£2.00**?	35 × ☐ = 140 	 There were 896 sweets in a box. Lucy had 6 boxes for her party. How many sweets did she have altogether? ☐ × ☐ = 150	 ☐ x 7 = 399 65 sandwiches are eaten everyday for 12 days. How many sandwiches were eaten altogether?	4563 tickets for the cinema were sold every week for a whole year. How many tickets were sold altogether? .£8.75 x 6 = Identify a range of errors in own and others' work. 
÷ Divide, divided by, share equally, factors, remainder, quotient. How many times will it fit into...? How many 3s in?	 Each garden had 3 bears in it. How many was this altogether?	I have a bag of 27 marbles. If I share them between 3 of my friends, how many will they each get? Can you put these 28 beads into groups of 4? How many groups do you have?	Plastic cups are sold in packs of 5. Ben needs 27. How many packs should he buy? ☐ ÷ 5 = 7 22 ÷ ☐ = 11 	 50 children need **two** pencils each. There are 20 pencils in a box. 20 Pencils How many boxes of pencils are needed? 50 children need **one** pen each. 4 Pens Pens are sold in packs of 4 How many packs of pens need to be bought?	At a tournament there are 7 players in each team. There are 112 players altogether. How many teams is this?  ☐ ÷ 8 = 34 160 ÷ ☐ = 8	A school buys some yo-yos as prizes. The yo-yos cost £4.25 each. The school has **£40** to spend on prizes. They buy as many yo-yos as they can. How much money is left?  464 ÷ ☐ = 58 ☐ ÷ 11 = 17	792 ÷ ☐ = 132 ☐ ÷ 7 = 540 Lots of practise and consolidation of the method. Children find this really tricky and just need to focus on getting the method right. Discuss other ways for solving problems using repeated addition where appropriate depending on the context.