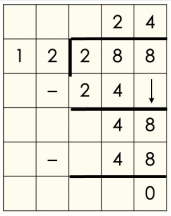
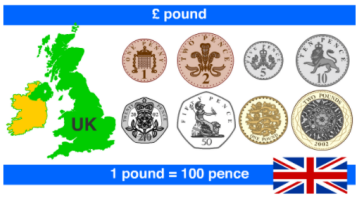
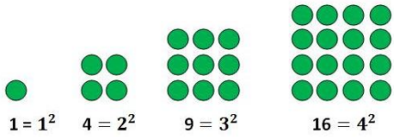
Core Knowledge		
Multiply by 10, 100, 1000	Work out 23 x 100 Thousands | Hundreds | Tens | Ones 2 | 3 2 | 3 | 0 | 0	Multiplying by 100 makes the number 100 times larger. Move the digits 2 places to the left and fill any spaces with zeros.
Divide by 10, 100, 1000	Work out 450 ÷ 10 Hundreds | Tens | Ones | | tenths 4 | 5 | 0 4 | 5 | . | 0	Dividing by 10 makes the number 10 times smaller. Move the digits 1 place to the right.
Commutative law	6 x 3 = 3 x 6 5 + 2 = 2 + 5	In addition or multiplication, numbers can be added or multiplied in any order.
Partitioning	6 × 20 = 6 × 2 × 10 = 12 × 10 = 120 or 165 x 6 = (100 x 6) + (60 x 6) + (5 x 6) = 600 + 360 + 30 = 990	Split numbers into factors or addends to make calculations easier.
Priority of operations	3 + 2 × 5 = 3 + 10 = 13	Use BIDMAS: Brackets () Indices (powers and roots) Division and Multiplication (left to right) Addition and Subtraction (left to right)
Rounding	46 rounds to 50 to the nearest 10 rounds down / rounds up 40 45 50 44 rounds to 40 to the nearest 10	Rounding makes a number simpler but keeps its value close to what it was. Look at the digit to the right of the place value you want to round to, if it is 5 or more round up, less than 5 round down.
≈	46 ≈ 50	is approximately equal to
Estimate	48 + 33 ≈ 50 + 30 = 80	Use rounded approximations to estimate answers to calculations.
Inverse operations	Check that 392 - 165 = 227 using 227 + 165	You can check a subtraction using the inverse operation of addition.
Place value	Thousands | Hundreds | Tens | Ones | Decimal Point | Tenths | Hundredths | Thousandths | Ten-thousandths 6 | 9 | 4 | 5 | . | 3 | 7 | 2 | 8	The value of a digit depending on its place in a number. In this example: The value of the 9 is 900 or 9 hundreds. The value of the 6 is 6000 or 6 thousands. The value of the 3 is 3 tenths.
Rounding to the nearest 10 000.	rounds down / rounds up 80 000 85 000 90 000 82 394 ≈ 80 000 85 028 ≈ 90 000	Find the 2 boundaries, in this case is the number closer to 80 000 or 90 000?
Multiplication: column method	34 × 29 306 + 680 986 First work out 34 × 9. Now work out 34 × 20. Add to give the final answer. Check: 30 × 30 = 900, which is close to 986	Multiply each column (right to left). Use an estimate to check your working.
Profit	Profit = sale price - cost price	A profit occurs when you sell something for more than it cost.
Loss	Loss = cost price - sale price	A loss occurs when you sell something for less than it cost.

Short division	33 4)13¹2 *Check: 33 x 4 = (30 x 4) + (3 x 4) =132*	Also known as the bus stop method. Work from left to right, writing remainders in the next column. Check your working using the inverse operation of multiplication.
Long division		Use long division to break down the method to divide by larger numbers.
Money		The pound (or pound sterling) is the official currency of the United Kingdom. £1 = 100p (pence) So £4.50 = 4 pounds and 50p
Rounding money		To round to the nearest pound, look at the pence - in this case is it closer to £12 or closer to £13?
	3.42(6) £3.43	Money amounts written in pounds have 2 decimal places. When calculating with money you may need to round to the nearest penny, or 2 decimal places.
Change	Change = money paid - cost	Change is the money you get back after paying for something with more than it costs.
Time	1 day = 24 hours 1 hour = 60 minutes 1 minute = 60 seconds	When using a calculator to work out times you will need to convert between decimals and fractions into hours and minutes.
<	5 < 10	less than
>	4 > 1	greater than
Negative numbers		To order, add or subtract negative numbers use a number line to help.
Multiple	The first 5 multiples of 3 are: 3, 6, 9, 12, 15	A multiple of a number is the product of that number multiplied by another number
Lowest common multiple (LCM)	The LCM of 3 and 4 = 12	The LCM is the smallest multiple of 2 or more numbers that is common.
Factor	Factors of 12: 1, 2, 3, 4, 6, 12 Factor pairs of 12: 1 x 12, 2 x 6, 3 x 4	A factor is a whole number that divides exactly into another number. A factor pair is two numbers that multiply to make a number.
Highest common factor (HCF)	The HCF of 12 and 16 = 4 12: 1, 2, 3, 4, 6, 12 16: 1, 2, 4, 8, 16	To find the HCF of two numbers, list the factors in order and find the largest one in common to both.
Prime numbers	2, 3, 5, 7, 11, 13, 17, 19, 23,29...	A prime number has exactly 2 factors, 1 and itself.
Square numbers		A square number can be represented by a pattern of dots in a square. It is the result of multiplying an integer by itself.
Index	$3 \times 3 = 3^2$	The small 2 shows that the number is multiplied by itself. The small 2 is a power, or an index (plural: indices).
Square root ($\sqrt{\ }$)	$\sqrt{9} = 3$	The square root is the inverse of squaring.