Calculations, Checking and Rounding

1	Decimal place	The position of a digit to the right of a decimal point.
2	Integer	A positive or negative whole number.
3	First significant figure	The first non-zero digit in a number.
4	Rounding	To make a number simpler but keep its value close to what it was.
5	Estimate	To make an educated guess of the value of a calculation by rounding each number to one significant figure.

Indices Powers and Roots

1	Square Number	The result of multiplying a number by itself. It will always be positive.	1, 4, 9, 16, 25, 36, 49, 64, 81, 100
2	Square Root	The opposite of squaring a number to find the original factor.	$\sqrt{}$
3	Cube Number	The result of multiplying a number by itself, then by itself again.	1, 8, 27, 64, 125, 216, 343, 512, 729, 1000
4	Cube Root	The opposite of cubing a number to find the original factor.	$\sqrt[3]{}$
5	Index Number/ Indices/ Power	A figure that represents the number of times a number is multiplied by itself.	
6	Index Notation	Represents repeated multiplications of the same number.	
7	Index Laws	Anything to the power of zero is 1.	$a^0 = 1$
		Anything to the power of 1 is itself.	$a^1 = a$
		Power multiplied by a power – add the indices.	$a^m \times a^n = a^{m+n}$
		Power divided by a power – subtract the indices.	$a^m \div a^n = a^{m-n}$
		Power to a power - multiply the indices.	$(a^m)^n = a^{m \times n}$

8	Reciprocal	1 divided by the number.	
9	BIDMAS	The order in which to complete a calculation.	B -Brackets I –Indices D –Division M –Multiplication A –Addition S –Subtraction

Factors, Multiples and Primes

1	Odd Number	A number that cannot be divided by two to give a whole number answer.	
2	Even Number	A number divisible by two.	
3	Factor	A number that divides into another number without leaving a remainder.	
4	Multiple	The result of multiplying a number by another number.	
5	Prime	A whole number, that only has two factors, 1 and itself.	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97
6	Decomposition	To break something down into smaller parts	
7	Venn Diagram	A diagram that identifies common elements of two or more things.	
8	Lowest Common Multiple (LCM)	The smallest positive number that is a multiple of two or more numbers.	
9	Highest Common Factor (HCF)	The greatest number that is a factor of two or more other numbers.	
10	Prime Factorisation	Finding prime numbers that multiply to give the original number.	

Standard Form and Surds

1	Standard Form	A scientific notation where a number is written in two parts: $\quad A \times 10^b$	
		$1 \le A < 10$	$b = integer$ (Positive or negative)
2	Multiply in standard form	Multiply the numbers and add the powers.	

3	Divide in standard form	Divide the numbers and subtract the powers.
4	Add in standard form	Convert into ordinary numbers, calculate and then convert back into standard form.
5	Subtract in standard form	Convert into ordinary numbers, calculate and then convert back into standard form.
6	Surd	A number that cannot be simplified to remove a square or cube root.
7	Rational number	A number that can be written as a fraction
8	Irrational number	A number that cannot be written as a fraction
9	Simplifying a Surd	The process of splitting the root into a square number and a normal number to break it down.