

KS4 Learning Journey
GCSE Foundation Tier – Year 10 Learning Cycle 1

Please watch the video on www.corbettmaths.com for each topic.

Key Skills Number	Video number
Order positive and negative integers	221
Add, subtract, multiply and divide negative numbers	205,206,207
Add, subtract, multiply and divide fractions	133,142,134
Add, subtract, multiply and divide mixed numbers	133,142,134
Understand place value including decimals	222
Use BIDMAS for the order of operations	211
Understand the terms prime number, factor, multiple, square number, cube number, square root and cube root	225,216,220,226,228 212,214
Calculate powers and roots	172.228
Find the prime factor decomposition of a number	223
Use this to find LCM's and HCF's	224
Round to decimal places and significant figures	279a, 278
Approximate the answer to a calculation by rounding to 1 significant figure	215
Change a terminating decimal to a fraction and vice versa	123
Change a recurring decimal to a fraction and vice versa	96

Key Skills - Algebra	Video number
Use algebraic notation	19
Substitute values into expressions and formulae	20
Understand the terms expression, equation, formula, identity, term and factor	
Simplify an expression by collecting like terms	9
Expand a bracket	13.14
Factorise an expression into a bracket	117
Apply the laws of indices to simplify expressions	174
Solve linear equations where the unknown appears on one side	110

Angles	Video number
Understand the terms vertices, edges, planes, parallel lines, perpendicular lines, right angles	5
Find missing angles around a point, on a straight line, in a triangle and using vertically opposite angles	30,34,35
Find missing angles using alternate and corresponding angles on parallel lines	25
Calculate the sum of interior angles in a polygon	32
Know the names of polygons: pentagon, hexagon, octagon and decagon	1
Find interior or exterior angles in a polygon	32
Know the names and properties of a square, rectangle, parallelogram, trapezium, kite and rhombus	2
Know the names and properties of isosceles, equilateral, scalene, right angled, acute angled and obtuse angled triangles.	327

Pythagoras' Theorem	Video number
Know the formula for Pythagoras' Theorem	257
Use Pythagoras' Theorem to find the length of a hypotenuse	257
Use Pythagoras' Theorem to find missing lengths in a right angled triangle	257

KS4 Glossary
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Key Skills – Number	
Commutative	If an operation is commutative, the order in which it is carried out can be reversed, without changing the answer.
Denominator	The number below the line in a fraction is called the denominator.
Estimate	Estimate means to find an approximate answer (usually by calculation) or to make a judgement about a size or quantity.
Indices	The index of a number says how many times to use the number in a multiplication. It is written as a small number to the right and above the base number. The plural of index is indices.
Integer	A whole number is called an integer.
Interest	Money paid regularly at a particular rate.
Numerator	The number above the line in a fraction is called the numerator.
Prime	A number with exactly two factors is called a prime factor.
Product	The product of two or more numbers is the result of multiplying the numbers.
Reciprocal	A simple definition of reciprocal is 1 divided by a given number. When we multiply the reciprocal of a number with the number, the result is always 1.
Error Interval	An error interval is the range of values that a number could have taken before being rounded or truncated. Error intervals are usually written as a range using inequalities, with a lower bound and an upper bound.

Key Skills - Algebra		
Factorise	The process of expressing a number or algebraic expression as a multiple of smaller numbers or simpler terms is to factorise.	
Identity	An identity is like an equation, but it is true for all values.	

Angles		
Parallel	Two or more lines whose directions are the same are parallel.	
Polygon	A polygon is a closed shape with three or more straight lines.	

Pythagoras' Theorem		
Hypotenuse	The hypotenuse is the longest side on a right-angled triangle and is always opposite the right angle.	

