

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

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

Key Skills - Number	Video number
Add, subtract, multiply and divide negative numbers	205,206,207
Add, subtract, multiply and divide decimals	90,91,94,92
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
Find LCMs and HCFs	224
Round to decimal places and significant figures	279a, 278
Approximate the answer to a calculation by rounding to 1 significant figure	215

Key Skills – FDP & Ratio	Video number
Simplify a fraction	146
Add, subtract, multiply and divide fractions including mixed numbers	132,133,134,142,139
Understand the term reciprocal	145
Change a terminating decimal to a fraction and vice versa	123
Change a recurring decimal to a fraction and vice versa	96
Order a list of fractions	144
Write a ratio in simplest form	269
Divide an amount into a given ratio	270
Solve problems involving ratio	270
Understand the relationship between ratios and fractions	269a
Calculate a percentage of an amount both with and without a calculator	234,235
Increase or decrease by a given percentage	238
Calculate simple interest	236a

Key Skills – Algebra	Video number
Use algebraic notation	19
Substitute values into expressions and formulae	20
Understand the terms expression, equation, formulae, identity, term and factor	
Simplify an expression by collecting like terms	9
Rearrange a formula to change the subject	7, 8
Solve linear equations where the unknown appears on one or both sides	113

Surds	Video number
Calculate exactly when working with surds	305
Simplify surds	305
Rationalise the denominator of a fraction containing surds	307
Simplify and manipulate algebraic expressions containing surds including expanding brackets and factorising quadratic expressions.	308

Angles	Video number
Apply basic angle facts	30,35,39
Find and use the sum of angles for a given polygon	32
Find and use the properties of special quadrilaterals	33
Understand and use alternate and corresponding angles on parallel lines.	25

KS4 Glossary
GCSE Higher Tier – Year 10 Learning Cycle 1

Key Skills – Number	
Commutative	If an operation is commutative, the order in which it is carried out can be reversed, without changing the answer.
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.
Negative	A negative number is one which is less than zero.
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.

Key Skills – FDP & Ratio	
Denominator	The number below the line in a fraction is called the denominator.
Interest	Money paid regularly at a particular rate.
Multiplier	A quantity by which a given number is to be multiplied.
Numerator	The number above the line in a fraction is called the numerator.
Ratio	A ratio expresses the relationship in quantity or size of two or more things.
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.

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.	
Formula	A formula is an expression into which the values of one or more variables can be substituted to evaluate a quantity.	
Identity	An identity is like an equation, but it is true for all values.	

Surds		
Rational	A rational number can be made by dividing an integer by an integer.	
Surd	The irrational root of an integer.	

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.	

