GCSE UNIT SUMMARY: UNIT 1 : NUMBER

1a) Integers and place value

Unit Description	Taught	Revision Priority
Use and order positive and negative numbers (integers) and decimals; use the symbols <, > and understand the ≠ symbol		
Add, subtract, multiply and divide positive and negative numbers (integers);		
Recall all multiplication facts to 10 × 10, and use them to derive quickly the corresponding division facts;		
Multiply or divide any number by powers of 10;		
Use brackets and the hierarchy of operations (not including powers);		
Round numbers to a given power of 10;		
Check answers by rounding and using inverse operations.		

1b) Decimals

Unit Description	Taught	Revision Priority
Use decimal notation and place value;		
Identify the value of digits in a decimal or whole number;		
Compare and order decimal numbers using the symbols <, >; and understand the ≠ symbol		
Write decimal numbers of millions, e.g. 2 300 000 = 2.3 million;		
Add, subtract, multiply and divide decimals;		
Multiply or divide by any number between 0 and 1;		
Round to the nearest integer		
Round to a given number of decimal places and significant figures;		
Estimate answers to calculations by rounding numbers to 1 significant figure;		
Use one calculation to find the answer to another		

1c) Indices, powers and roots

Unit Description	Taught	Revision Priority
Find squares and cubes:		
recall integer squares up to 10 x 10 and the corresponding square roots;		
understand the difference between positive and negative square roots;		
recall the cubes of 1, 2, 3, 4, 5 and 10;		
Use index notation for squares and cubes;		
Recognise powers of 2, 3, 4, 5;		
Evaluate expressions involving squares, cubes and roots:		
add, subtract, multiply and divide numbers in index form;		
cancel to simplify a calculation;		
Use index notation for powers of 10, including negative powers;		
Use the laws of indices to multiply and divide numbers written in index notation;		
Use brackets and the hierarchy of operations with powers inside the brackets, or raising brackets to powers;		
Use calculators for all calculations: positive and negative numbers, brackets, square, cube, powers and roots, and all four operations.		

1d) Factors, multiples and primes

Unit Description	Taught	Revision Priority
Recognise odd, even and prime (two digit) numbers;		
Identify factors and multiples and list all factors and multiples of a number systematically;		
Create a factor tree of positive integers and write as a product using index notation;		
Find common factors and common multiples of two numbers;		
Find the LCM and HCF of two numbers, by listing, Venn diagrams and using prime factors: include finding LCM and HCF given the prime factorisation of two numbers;		
Solve simple problems using HCF, LCM and prime numbers.		