

Quality of Education: Curriculum is planned and sequenced so that new **knowledge** and **skills** build on what has been taught before and towards its clearly defined end points.

SUBJECT: Higher Number		CURRICULUM PROGRESSION PATHWAYS		CL: Miss Z. Bradshaw and Miss A. Hazell	
KS3 (Level 1)	KS4 (Level 2)	KS5 (Level 3)	Further Education and training	Careers	
→		→		→	
<p>Calculations</p> <ul style="list-style-type: none"> Calculations with negative numbers Use mental and written strategies for multiplication and division of 1, 2 and 3 digit integers <p>Place Value</p> <p>Types of Number</p> <ul style="list-style-type: none"> Understand the difference between factors, multiples and primes. Find HCF and LCM of two numbers Find and use prime factor decomposition Use laws of indices for multiplying and dividing (positive powers) Use and understand effect of multiplying and dividing by powers of 10 Use squares, cubes, square roots and cube roots in calculations <p>Estimation</p> <ul style="list-style-type: none"> Estimate answers to complex calculations <p>Fractions</p> <ul style="list-style-type: none"> Compare and simplify fractions, convert between improper and mixed fractions. Add, subtract, multiply and divide, proper, improper and mixed numbers. Find fractions of an amount <p>Percentages</p> <ul style="list-style-type: none"> Calculate with percentages including percentage increase and decrease and repeated percentage changes Calculate percentage change <p>Decimal</p> <ul style="list-style-type: none"> Add, subtract, multiply and divide decimals and whole numbers Convert between fractions, decimals and percentages Recognise returning decimals 	<p>Calculations</p> <ul style="list-style-type: none"> Work out the number of ways of performing a series of tasks <p>Place Value</p> <ul style="list-style-type: none"> Use place value to answer questions <p>Types of Number</p> <ul style="list-style-type: none"> Work out powers raised to powers, fractional and negative indices Write and calculate numbers in standard form Simplify surds and rationalize denominators <p>Estimation</p> <ul style="list-style-type: none"> Estimate square roots Find error interval and calculate with upper and lower bounds <p>Fractions</p> <ul style="list-style-type: none"> Find reciprocals of integers, decimals and fractions <p>Percentages</p> <ul style="list-style-type: none"> Find amounts after repeated percentage changes and solve growth and decay problems 	<p>Mathematics A Level</p>	<ul style="list-style-type: none"> Actuarial Science Aeronautical Engineering Chemical Engineering Civil Engineering Economics Electrical/Electronic Engineering (General) Mathematics Mechanical Engineering Physics Statistics 	<ul style="list-style-type: none"> Actuarial Science Aeronautical Engineering Chemical Engineering Civil Engineering Economics Electrical/Electronic Engineering (General) Engineering (General) Mathematics Mechanical Engineering Physics Statistics 	