

Year 10 Curriculum Overview [2019-2020] – Planning for Progression
Subject – Maths

Schedule	Term	Knowledge & Understanding	Literacy Skills Building vocabulary Developing oral skills Developing reading skills Developing writing skills	Key Skills Subject Skills Numeracy Skills 21 st Century Skills Employability Skills	Assessment Formative Interim Summative
Autumn Term	Half Term 1	<p>Pupils will complete:</p> <p>FOUNDATION</p> <ul style="list-style-type: none"> Simplifying and expanding brackets Function machines Substitution Drawing Linear and Quadratic graphs Sequences and nth terms Place value /multiplication Fractions Factors multiples and primes <p>HIGHER</p> <ul style="list-style-type: none"> Calculations, checking and rounding Indices, roots, reciprocals and Bodmas/Bidmas Factors multiples, primes, standard form and surds Basic Algebra review basics, set up rearrange and solve equations Sequences 	<p>Vocab Indices, cubed, root, reciprocal, arithmetic, geometric, quadratic sequence Fibonacci, acute</p> <p>Oral skills Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading Classwork and online HWK where problem solving incorporated e.g. loci descriptions</p>	<p>Subject Number ,algebra Reasoning ,problem solving, communicate</p> <p>Employability Logic, communication skills and critical thinking, organisation</p> <p>Cultural Capital Infinity</p> <p>21st Century Collaboration paired working Communication creativity</p>	<p>Class tests every 2 weeks (SAMS)</p> <p>Formal assessment week commencing 18 November</p>
	Half Term 2	<ul style="list-style-type: none"> FOUNDATION Properties of polygons Angle properties Transformations Area and volume Probability Averages Venn diagrams Statistical diagrams HIGHER Averages and range 	<p>Vocab Proportion, proportional, bias, outcome, independent, expression, equation, identity, term, coefficient,</p> <p>Oral skills Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading</p>	<p>Subject Number ,statistics, algebra, Reasoning ,problem solving, communicate</p> <p>Employability Logic, communication skills and critical thinking, organisation</p> <p>21st century Collaboration paired working</p>	

		<ul style="list-style-type: none"> • Represent and interpret data • Fractions and percentages • Ratio and proportion 	Classwork and online HWK where problem solving incorporated e.g. volume problem solving incorporating cost analysis and comparison.	Communication creativity	
Spring Term	Half Term 3	<ul style="list-style-type: none"> • FOUNDATION • Operations with decimals • Operations with fractions • Order of operations BODMAS • Ratio and proportion • Money and currency problems <p>HIGHER</p> <ul style="list-style-type: none"> • Polygons angles and parallel lines • Pythagoras and trigonometry (right angled triangles) • Real life graphs, line graphs and coordinate geometry 	<p>Vocab</p> <p>Term, linear, quadratic, function, coefficient, gradient, intercept, axis, horizontal, vertical, square, root, cubic, cubed, exponential</p> <p>Oral skills</p> <p>Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading</p> <p>Classwork and online HWK where problem solving incorporated e.g. money problems</p>	<p>Subject</p> <p>Number ,statistics, algebra, geometry</p> <p>Reasoning ,problem solving, communicate</p> <p>Employability</p> <p>Logic, communication skills and critical thinking, organisation</p> <p>Cultural Capital</p> <p>Pythagoras</p> <p>International currency</p> <p>21st Century</p> <p>Collaboration paired working</p> <p>Communication creativity</p>	Topic tests every 2 weeks (SAMS)
	Half Term 4	<p>FOUNDATION</p> <ul style="list-style-type: none"> • Area and circumference of a circle • Volume of prisms • Angles with parallel lines and in polygons • Constructions • Tangents/arcs /sectors and segments • Bearings • Revision of first 4 terms <p>HIGHER</p> <ul style="list-style-type: none"> • Quadratic and cubic graphs • Perimeter area and circles • Volume of prisms, cones and spheres • Accuracy and bounds 	<p>Vocab</p> <p>Gradient, perpendicular, bisector, arc, intercept, reciprocal, arithmetic, geometric, quadratic, Volume, perimeter, sector, segment, chord, circumference, radius, diameter</p> <p>Trapezium, quadrilateral, rhombus, pentagon, hexagon, heptagon, octagon</p> <p>Oral skills</p> <p>Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading</p> <p>Classwork and online HWK where problem solving incorporated e.g. complex volume questions included in problem solving</p>	<p>Subject</p> <p>statistics, algebra, geometry</p> <p>Reasoning ,problem solving, communicate</p> <p>Employability</p> <p>Logic, communication skills and critical thinking, organisation</p> <p>21st Century</p> <p>Collaboration paired working</p> <p>Communication creativity</p>	

Summer Term	Half Term 5	<p>FOUNDATION</p> <ul style="list-style-type: none"> • Midpoint of a line on a graph • Expanding brackets • Rearranging Formulae • Forming and solving equations and inequalities • Fibonacci sequence • Product of primes HCF and LCM • Powers and standard form • Fractions decimals percentages <p>HIGHER</p> <ul style="list-style-type: none"> • Quadratic and cubic graphs • Perimeter area and circles • Volume of prisms, cones and spheres • Accuracy and bounds • 	<p>Vocab</p> <p>Multiple factor, coefficient, inequality, expression, factorise, simplify, volume, perimeter, sector, segment, chord, ,tangent, circumference ,radius, diameter, trapezium, quadrilateral, rhombus, pentagon, hexagon, heptagon ,octagon</p> <p>Oral skills</p> <p>Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading</p> <p>Classwork and online HWK where problem solving incorporated e.g. complex volume questions included in problem solving</p>	<p>Subject</p> <p>statistics, algebra, geometry Reasoning ,problem solving, communicate</p> <p>Employability</p> <p>Logic, communication skills and critical thinking, organisation</p> <p>Cultural Capital</p> <p>Fibonacci and relationship to art and nature</p> <p>21st Century</p> <p>Collaboration paired working Communication creativity</p>	<i>Mock exams commence 11th May (3 papers)</i>
	Half Term 6	<p>FOUNDATION</p> <ul style="list-style-type: none"> • Rounding and estimating • Negative indices • Introduction to bounds and error intervals • Factorising and solving quadratics • Equation of a line • Roots and turning points of equations • Cubic and reciprocal graphs • Simultaneous equations <p>HIGHER</p> <ul style="list-style-type: none"> • Graphs of trigonometrical functions • Advanced trigonometry • Cumulative frequency and box plots. 	<p>Reciprocal, exponential, asymptotic, iteration, function,</p> <p>Oral skills</p> <p>Pupils respond to questioning when using whiteboards. Pupils come to front to demonstrate solutions</p> <p>Reading</p> <p>Classwork and online HWK where problem solving incorporated e.g. speed distance time problem solving</p>	<p>Subject</p> <p>statistics, algebra, geometry Reasoning ,problem solving, communicate</p> <p>Employability</p> <p>Logic, communication skills and critical thinking, organisation</p> <p>Cultural Capital</p> <p>Relating statistics to real world issues</p> <p>21st Century</p> <p>Collaboration paired working Communication creativity</p>	