Curriculum Content Map

Subject: Maths - Foundation

Year group: 10

	Term 1				Term 2			Term 3			
Month	**September**	**October**	**November**	**December**	**January**	**February**	**March**	**April**	**May**	**June**	**July**
Virtue	**Friendliness & Civility**	**Justice & Truthfulness**	**Courage**	**Generosity**	**Gratitude**	**Good Speech**	**Good Temper & Humour**	**Self-Mastery**		**Compassion**	**Good Sense**
Skill	**Listening**	**Leadership**	**Problem-Solving**	**Creativity**	**Staying Positive**	**Speaking**	**Staying Positive**	**Aiming High**		**Speaking**	**Teamwork**
Curriculum Content	Number NUMBER	Algebra ALGEBRA	Graphs, Tables and Charts DATA		Fractions and Percentages NUMBER	Equations, Inequalities and Sequences ALGEBRA		Angles SHAPE	Averages and Range DATA Perimeter, Area, Volume SHAPE	Graphs ALGEBRA	Transformations SHAPE
National Curriculum area	*"estimate powers and roots of any given positive number"* *"calculate with roots, and with integer indices"* *"apply and interpret limits of accuracy when rounding or truncating"*	*"simplify and manipulate algebraic expressions by: factorising quadratic expressions, including the difference of two squares; simplifying expressions involving sums, products and powers, including the laws of indices"* *"where appropriate, interpret simple expressions as functions with inputs and outputs"*	*"interpret and construct tables and line graphs for time series data"* *"interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: appropriate graphical representation involving discrete, continuous and grouped data, appropriate measures of central tendency (including modal class) and spread"* *"use and interpret scatter graphs of bivariate data; recognise correlation and know that it does not indicate causation; draw estimated lines of best fit; make predictions; interpolate and extrapolate apparent trends whilst knowing the dangers of so doing"*		*"identify and work with fractions in ratio problems"*	*"translate simple situations or procedures into algebraic expressions or formulae; derive an equation (or two simultaneous equations), solve the equation(s) and interpret the solution"* *"solve linear inequalities in one variable; represent the solution set on a number line"* *"recognise and use sequences of triangular, square and cube numbers, simple arithmetic progressions, Fibonacci type sequences, quadratic sequences, and simple geometric progressions (r n where n is an integer, and r is a positive rational number"* *"deduce expressions to calculate the nth term of linear sequences"*			*"infer properties of populations or distributions from a sample, whilst knowing the limitations of sampling"* *"interpret, analyse and compare the distributions of data sets from univariate empirical distributions through: appropriate measures of central tendency (including modal class) and spread"*	*"use the form y mx c = + to identify parallel lines; find the equation of the line through two given points, or through one point with a given gradient"* *"plot and interpret graphs (including reciprocal graphs) and graphs of non-standard functions in real contexts, to find approximate solutions to problems such as simple kinematic problems involving distance, speed and acceleration"*	
Link to Virtue	Students will learn about <u>friendly</u> numbers. Students will also work closely on paired and group work to practice <u>friendliness and civility.</u>	Students will look at the <u>truthfulness</u> of expressions and how they can be manipulated.	Students will demonstrate <u>courage</u> in extending their knowledge of data and tables to find even further information and data.	Students will demonstrate <u>generosity</u> by helping other students and leading on their learning.	Students will demonstrate <u>gratitude</u> for knowing more than one method for calculating with fractions and percentages. Students will also be <u>grateful</u> for learning a skill regularly used in everyday life.	Students will demonstrate <u>good speech</u> by being able to explain both their own working as well as explaining whether others have made mistakes and, where necessary, correcting them.	Students will need to demonstrate <u>good temper and humour</u> as the work gets more difficult and stretches them in terms of algebraic skills.	Students will be using this topic to ensure they have <u>mastered</u> their angle knowledge built in KS3.	Students will be using these topics to ensure they have <u>mastered</u> their averages and shape knowledge built in KS3.	Students will show <u>compassion</u> as they look at the graphs of donation amounts for charities before, during and after lockdown.	Students will show <u>good sense</u> as they understand how to describe, not just draw transformations
Link to Skill	Students will need to be able to <u>listen</u> to each other and explain another student's opinion. Students will also need to <u>listen</u> to the teacher and pick out	Students will <u>lead</u> on their own and others' learning.	Students will use <u>problem-solving</u> skills throughout this module to ensure they can make appropriate conclusions based on data.	Students will need <u>creativity</u> to ensure they draw appropriate graphs and draw them accurately.	Students will need to <u>stay positive</u> as they build on skills they already have to ensure they can apply these to more difficult examples.	Students will demonstrate <u>speaking</u> by being able to explain both their own working as well as explaining whether others have made mistakes and, where	Students will need to <u>stay positive</u> as the work gets more difficult and stretches them in terms of algebraic skills.	Students will need to <u>aim high</u> as they further extend their angles knowledge built in KS3.	Students will need to <u>aim high</u> as they further extend their averages and shape knowledge built in KS3.	Students will demonstrate <u>speaking</u> by being able to explain both their own working as well as explaining whether others have made mistakes and, where	Students will work in groups and use <u>teamwork</u> to interpret combined transformations

	underlying consistencies and themes in their learning.					necessary, correcting them.				necessary, correcting them.	
Sequencing	Builds from KS3: Calculations Decimal Numbers Place Value Factors and Multiples Squares, Cubes, Roots Prime Factors	Builds from KS3: Simplifying Expressions Substitution Expanding and Factorising Brackets	Builds from KS3: Bar Charts Frequency Tables Two-Way Tables Stem & Leaf Builds from KS3:		Builds from KS3: Add, Subtract, Multiply, Divide Fractions Calculating Percentages	Builds from KS3: Solving Equations Inequalities Sequences		Builds from KS3: Consolidation of KS3 angles knowledge	Builds from KS3: Averages Range Builds from KS3: Consolidation of KS3 perimeter, area and volume	Builds from KS3: Plotting a linear graph Speed, Distance, Time	Builds from KS3: Reflection Rotation Translation Enlargement
	Further develops in Y11: Compound Interest Indices Standard Form	Further develops in Y11: Expanding Double Brackets Quadratic Expressions Quadratic Graphs	Further to develops in Y11: Revision of all data skills		Further develops in Y11: Further extension of multiplying and dividing fractions	Further develops in Y11: Solving quadratic equations Solving simultaneous equations		Further develops in Y11: Constructions Congruency Similar Shapes	Further develops in Y11: Revision of all averages skills Further develops in Y11: Circles Pyramids Cones Spheres	Further develops in Y11: Quadratic, Cubic and Reciprocal graphs Simultaneous Equations on a graph	Further develops in Y11: Similarity
Retrieval											
New Learning											
Independent Practice					Functional Skills Task on Tax and National Insurance						
Misconceptions											
Vocabulary and Comprehension											
Literacy	Reading Link attached to each lesson.	Reading Link attached to each lesson.	Reading Link attached to each lesson.		Reading Link attached to each lesson.	Reading Link attached to each lesson.		Reading Link attached to each lesson.	Reading Link attached to each lesson.	Reading Link attached to each lesson.	Reading Link attached to each lesson.
Numeracy	Calculations Estimation Rounding Place Value	Simplifying Expressions Substitution	Bar Charts Frequency Tables		Fractions Percentages						
Oracy	Regular paired, group and class discussion	Regular paired, group and class discussion	Regular paired, group and class discussion		Regular paired, group and class discussion	Regular paired, group and class discussion		Regular paired, group and class discussion	Regular paired, group and class discussion	Regular paired, group and class discussion	Regular paired, group and class discussion
Careers	Links to Careers that need to convert Metric Measurement				Careers in banking (simple interest)					Careers linked to plotting graphs	

Super Curricular Links									
Cross-Curricular Links		Section on linking maths and scientific formulae	Data links to Geography and History						
British values and SMSC									
Summative assessment									
Scaffolding for LA	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.	Modelled Examples given to students.
Challenge for HA ☆	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW.	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW	HA students to ensure completion of exam-based questions and, where appropriate, follow the Higher SoW