KS4 Foundation Tier Maths	Topic	Key Words	Links to previous learning	Links to wider curriculum
AUTUMN 1	Properties of Numbers Prime Factorisation HCF and LCM with and without Venns Rounding to DP, SF and Approximating Standard Form Directed Number BIDMAS with Negatives Calculating Indices Negative Numbers	Prime, Prime Factor, Prime Factorisation, Product, Venn Diagram, HCF, LCM, Standard Form, Significant Figures Negative Number, Directed Number, Improper Fraction, Top Heavy Fraction, Mixed Number, Operation, Inverse, Long Multiplication, Short Division, Power, Indices Roots	Multiples, Factors, Primes, HCF and LCM, Rounding to 10, 100, 1000 and Decimal Places, Multiplying and Dividing by Powers of 10, BIDMAS, Calculating by Addition, Subtraction, Division and Multiplication	**English** - Mathematical Vocabulary Autumn 1 - Science – cell division Autumn 1 - PSD – personal identity Autumn 2 - Science – Distance of planets Spring 2 - PE – training reps Summer 1 - PSD – Personal Budgeting Summer 1 - Health and social care – Skills and qualifications Summer 1 - PSD – managing a budget Summer 2 - PSHE – qualifications needed
AUTUMN 2	Constructions Scale Drawings Bearings Enlargements Understanding Risk 1 Expand Factorise Indices	Similar, Enlarge, Enlargement, Scaling, Scale Factor, Centre of Enlargement, Scale Drawing, Bearing, Plan, Elevation, Probability, Theoretical Probability, Event, Outcome, Impossible, Unlikely, Evens Chance, Likely, Certain, Equally Likely, Mutually Exclusive, Exhaustive, Possibility Space, Variable, Term, Coefficient, Factor, factorise, Power, Indices, Formula, Formulae, Subject	Drawing and Measuring Angles, Direction, Scale Drawings, Using Scales, Basic Probability, Knowledge of Powers and Roots, Negative Numbers	**English** - Mathematical Vocabulary **Technology** – Accurate measuring Autumn 1 - Art – Enlargement of prep work Spring 1 - Construction – application of skills -

SPRING 1	Exploring FDP and Ordering Terminating and Recurring Fractions Ratio and Proportion Best Buys Speed, Distance and Time Number Sequences	Fraction, Mixed Number, Improper Fraction, Proper Fraction, Top Heavy Fraction, Percentage, Decimal, Terminating, Recurring, Simplify, Cancel, Ratio, Proportion, Multiplier, Speed, Units, Compound Units, Sequence, Linear, Term, Difference, Term-to-Term Rule, Position-to-Term Rule, Ascending, Descending,	Equivalents between Fractions, Decimals and Percentages, Ordering whole numbers, negatives and Decimals, Simplify ratio, Divide a ratio into a given amount, Term-to-Term Rule, Position-to-Term Rule,	**English** - Mathematical Vocabulary Autumn 2 - Home Cooking – reading recipes and meal planning Spring 1 - Science – equations, calculations, reactions
SPRING 2	Investigating Angles in Polygons Investigating Angles in Parallel Lines Problem Solving with Angles Calculating with FDP Solving Equations Solving Inequalities	Angles, Degrees, Right Angle, Acute, Obtuse, Reflex, Protractor, Vertically Opposite, Parallel, Alternate, Corresponding and Interior Angles, Exterior Angle, Regular Polygon, Proper Fraction, Improper Fraction, Mixed Number, Simplify, Cancel, Lowest Term, Percent, Percentage, Percentage Change, Original Amount, Multiplier, Simple Interest, Algebra, Algebraic, Unknown, Equation, Operation, Solve, Solution, Brackets, Symbol, Substitute, Inequality	Basic Angle facts, Angles around a Point and on a Straight Line, Common Denominators, Mixed Numbers and Improper Fractions, Calculating 10%, 5%, 25% and 50%, Solving Simple Equations, Collecting Like Terms, Expanding Brackets	**English** - Mathematical Vocabulary Autumn 1 - Art – creating a personal response Autumn 2 - Art – creating a personal response

SUMMER 1	Area and Perimeter Area and Circumference (Circles) Volume of 3D Shapes Surface Area of 3D Shapes Linear Graphs	Circle, centre, Radius, Diameter, Chord, Circumference, Pi, Prism, Cross Section, Cylinder, Polygon, Solid, Equation (of a graph), Function, Formula, Linear, Coordinate, Gradient, y-intercept, Substitute, Quadratic, Speed, Distance	Knowledge of formulae for area and perimeter for all 2D shapes, Units of measure, Names 2D and 3D shapes, Coordinates, Substitution	**English** - Mathematical Vocabulary Autumn 1 - Travel and Tourism – graphs, charts and collecting data Autumn 2 - Construction – wood joints Spring 1 - PE – methods of measurement Summer 2 - Science – Making Compounds -
SUMMER 2	Understanding Risk 2 Measuring Data Presenting Data	Outcome, Event, Experiment, Combined Experiment, Frequency Tree, Enumerate, Set, Venn Diagram, Sample Space, Equally Likely Outcomes, Theoretical Probability, Random, Bias, Fairness, Relative Frequency Data, Categorical Data, Discrete Data, Continuous Data, Grouped Data, Frequency Table, Frequency, Histogram, Scale, Graph, Axis, Axes, Scatter Graph (Scatter Diagram, Scattergram, Scatter Plot) Bivariate Data, (Linear) Positive and Negative Correlation	Probabilities add up to 1, List Outcomes, Understanding of probability Vocabulary, Knowledge of graphs, Tables and Charts, Read and Represent Data, Ordering Numbers, X and Y Axis	**English** - Mathematical Vocabulary Autumn 2 - PSD – healthy living Spring 2 - PE – Training for fitness Spring 2 - Citizenship – Measuring data Summer 1 - English – Analysing text – use of statistics