Oswaldtwistle School KS3 Pendle Maths Long Term Plan

KS3 Pendle Maths	Topic	Key Words	Links to previous learning	Links to wider curriculum
AUTUMN 1	Number and the number system Properties of numbers Factors and Multiples HCF and LCM Prime factorisation Indices Addition/Subtraction Multiplication/Division BIDMAS	Square and Cube Numbers, Powers, Roots, Triangular Square Numbers, Prime Numbers, Factors, Multiples, HCF, LCM, Addition, Subtraction, Sum, Total, Difference, Minus, Less, Column Addition, Operation, Multiply, Multiplication, Times, Product, Short Multiplication, Long Multiplication, Commutative, Divide, Division, Divisible, Divisor, Dividend, Quotient, Long Division, Short Division. Remainder, Operation	Positive and Negative Numbers, Multiples, Factors, Primes, HCF and LCM, Multiplying and Dividing by Powers of 10, BIDMAS, Place Value, Calculating by Addition, Subtraction, Division and Multiplication	English - Mathematical Vocabulary Autumn 1 – Science – Cell Division Spring 1 – Humanities - Population Growth
AUTUMN 2	Rounding/Estimating Approximation Ordering integers and decimals Ordering fractions Properties of shapes Constructions	Estimate, Approximate, Round, Decimal Place, Check, Solution, Answer, Accurate, Accuracy, Significant Figure, Cancel, Inverse, Operation Positive Number, Negative Number, Integer, Numerator Denominator, Edges, Faces, Vertex, Vertices, Plane, Parallel, Perpendicular, Regular Polygon, Rotational Symmetry	Place Value, Rounding to 10, 100, 1000 and Decimal Places; Read, Write, Order and Compare Positive and Negative Numbers, Drawing and Measuring Angles	English - Mathematical Vocabulary Autumn 2 – Technology – Packaging Spring 1 – Art – Famous Buildings – Shape, proportion and scale drawings Spring 2 – Technology – Isometric Drawing Summer 1 – Outdoor Education - Bearings

SPRING 1	Basic algebra Collecting like terms Expanding brackets Substitution Function machines Exploring FDP Basic ratio	Algebra, Expression, Term, Formula, Formulae, Equation, Function, Variable, Mapping Diagram, Input, Output, Represent, Substitute, Evaluate, Like Terms, Simplify, Collect, Fraction, Mixed Number, Improper Fraction, Proper Fraction, Top Heavy Fraction, Percentage, Decimal, Terminating, Recurring, Simplify, Cancel, Ratio, Proportion, Compare, Comparison, Part, Simplify, Common Factor, Cancel, Lowest Terms, Unit	Basic Unerstanding of Algebra EG: 7 + x = 10, Inverse Operations, Knowledge of formulae, Equivalents between Fractions, Decimals and Percentages, Ordering whole numbers, negatives and Decimals, Simplifying Ratios and Fractions	English - Mathematical Vocabulary Spring 1 – Art – Famous Buildings – Shape, proportion and scale drawings Spring 2 – Arts Award – Drawing maps to scale
SPRING 2	Number sequences Metric units Angles Calculating with FDP	Sequence, Linear, Term, Difference, Term-to-Term Rule, Position-to-Term Rule, Ascending, Descending, Length, Distance, Mass, Weight, Volume, Capacity, Metres, Centimetres, Millimetres, Tonne, Kilogram, Gram, Milligram, Litre, Millilitres, Hour, Minute, Second, Inch, Foot, Yard, Pound, Ounce, Pint, Gallon, Line Segment, Angles, Degrees, Right Angle, Acute Angle, Obtuse,	Sequences and Patterns, Differences, Counting on and back, Time, Money, Basic Understanding of Metric Units, Acute, Obtuse and Reflex Angles, Angles in Triangles, Quadrilaterals, Around a Point and on a Straight Line, Order FDPs, Common Denominators, Mixed Numbers and Improper Fractions, Calculating 10%, 5%, 25% and 50%,	English - Mathematical Vocabulary Spring 2 – Arts Award – Drawing maps to scale Autumn 1 – Humanities – Chronology Spring 1- Outdoor Education – Time Keeping Spring 2 – Outdoor Education – Average Speeds Autumn 2 – Nurture – Maps Spring 1 – Technology – Clock project

		Angle, Reflex Angle, Protractor, Vertically opposite, Geometry, Geometrical, Mixed Number, Equivalent Fraction, Simplify, Cancel, Lowest Terms, Proper Fraction, Improper Fraction, Top Heavy Fraction, Numerator, Denominator, Percent, Percentage, Multiplier, Increase, Decrease		
SUMMER 1	Calculating with FDP continued Solving equations Area and Perimeter	Algebra, Algebraic, Algebraically, Unknown, Equation, Operation, Solve, Solution, Brackets, Symbol, Substitute, Perimeter, Area, Volume, Surface Area, Capacity, Square, Rectangle, Parallelogram, Triangle, Trapezium, Polygon, Cube, Cuboid, Square mm, Square cm, Square m, Square km, Cubic Centimetre, Centimetre Cube, Formula, Formulae, Length, Breadth, Depth, Height, Width,	Order FDPs, Common Denominators, Mixed Numbers and Improper Fractions, Calculating 10%, 5%, 25% and 50%, Solving Simple one Step Equations, Collecting Like Terms, Expanding Brackets Knowledge of formulae for area and perimeter for all 2D shapes, Units of measure, Names 2D and 3D shapes,	English - Mathematical Vocabulary Autumn 1 – PSHE - Finance Autumn 2 – Technology – Packaging Summer 2 - Science – Scientific Equations

SUMMER 2	Transformations Presenting data Measuring data Probability	Coordinates, Axis, Axes, x-axis, y-axis, Origin, Quadrant, Translation, Reflection, Rotation, Transformation, Object, Image, Congruent, congruence, Mirror Line, Vector, Centre of Rotation Data, Categorical Data, Discrete, Data, Pictogram, Symbol, Key, Frequency, Table, Frequency Table, Tally, Bar Chart, Time Graph, Time Series, Bar-Line Graph, Vertical, Line Chart, Scale, Graph, Axis, Axes, Line Graph, Pie Chart, Sector, Angle, Maximum, Minimum, Average, Spread, Consistency, Mean, Median, Mode, Range, Measure, Data, Statistics, Approximate, Round	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 1 – English – Oliver Twist – Analysing data All Year – PSHE – Statistics/trends on various key topics Spring 1 – Humanities – Population Growth Spring1 – Art – Enlargements