

Oswaldtwistle School KS3 Pendle Maths Long Term Plan

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

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<p>SPRING 1</p>	<p><u>Algebra 1</u> Basic algebra Collecting like terms Expanding brackets Substitution Function machines <u>FDP 1</u> Convert between Fractions, Decimals and Percentages Fractions of amounts Percentages of amounts <u>Proportion 1</u> Sharing in a ratio Simplifying ratio Direct proportion</p>	<p><u>Algebra 1</u> Algebra, Expression, Term, Formula, Formulae, Equation, Function, Variable, Mapping Diagram, Input, Output, Represent, Substitute, Evaluate, Like Terms, Simplify, Collect <u>FDP 1</u> Fraction, Mixed Number, Improper Fraction, Proper Fraction, Top Heavy Fraction, Percentage, Decimal, Terminating, Recurring, Simplify, Cancel <u>Proportion 1</u> Ratio, Proportion, Compare, Comparison, Part, Simplify, Common Factor, Cancel, Lowest Terms, Unit</p>	<p><u>Algebra 1</u> Basic Understanding of Algebra EG: $7 + x = 10$, Inverse Operations, Knowledge of formulae, <u>FDP 1</u> Equivalent between Fractions, Decimals and Percentages, Ordering whole numbers, negatives and Decimals, Simplifying Ratios and Fractions <u>Proportion 1</u> Proportion, Ratio, Quantity, Integer, Similar (Shapes), Enlargement, Scale Factor, Group, Share, Multiple Ratio, Compare, Comparison, Part, Simplify, Common Factor, Cancel, Lowest Terms, Unit Proportional, Multiplier, Speed, Unitary Method, Units, Compound Units</p>	<p>English - Mathematical Vocabulary <u>Proportion 1</u> Spring 1 – Art – Famous Buildings – Shape, proportion and scale drawings Spring 2 – Arts Award – Drawing maps to scale</p>
<p>SPRING 2</p>	<p><u>Sequences</u> Number sequences Nth term <u>Shape 2</u> Metric units Converting between metric and imperial units Currency Conversions Using measuring instruments accurately <u>Shape 3</u> Types of angles Angles in Triangles Angles in special quadrilaterals Angles at a point Angles on a straight line Angles in parallel lines <u>FDP 2</u></p>	<p><u>Sequences</u> Sequence, Linear, Term, Difference, Term-to-Term Rule, Position-to-Term Rule, Ascending, Descending <u>Shape 2</u> 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, <u>Shape 3</u> Line Segment, Angles, Degrees, Right Angle, Acute Angle, Obtuse, Angle, Reflex Angle, Protractor, Vertically opposite, Geometry, Geometrical <u>FDP 2</u> Mixed Number, Equivalent Fraction, Simplify, Cancel, Lowest Terms, Proper</p>	<p><u>Sequences</u> Sequences and Patterns, Differences, Counting on and back, Time, Money, Basic <u>Shape 2</u> 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 <u>Shape 3</u> Acute, Obtuse and Reflex Angles, Angles in Triangles, Quadrilaterals, Around a Point and on a Straight Line <u>FDP 2</u></p>	<p>English – Mathematical vocabulary <u>Shape 2</u> 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</p>

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	Fractions of an amount Percentages of an amount Decimal multipliers Simple interest	Fraction, Improper Fraction, Top Heavy Fraction, Numerator, Denominator, Percent, Percentage, Multiplier, Increase, Decrease	Order FDPs, Common Denominators, Mixed Numbers and Improper Fractions, Calculating 10%, 5%, 25% and 50%, Calculating 10%, 5%, 25% and 50%,	
SUMMER 1	<u>Algebra 2</u> Function Machines Solving single step equations Solving 2 step equations Solving multi-step equations Rearranging formulae <u>Shape 4</u> Area Perimeter Volume Parts of a circle	<u>Algebra 2</u> Algebra, Algebraic, Algebraically, Unknown, Equation, Operation, Solve, Solution, Brackets, Symbol, Substitute <u>Shape 4</u> 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	<u>Algebra 2</u> Solving Simple one Step Equations, Collecting Like Terms, Expanding Brackets <u>Shape 4</u> Knowledge of formulae for area and perimeter for all 2D shapes, Units of measure, Names 2D and 3D shapes	English - Mathematical Vocabulary <u>Algebra 2</u> Autumn 1 – PSHE - Finance Autumn 2 – Technology – Packaging Summer 2 - Science – Scientific Equations
SUMMER 2	<u>Transformations</u> Reflections Rotations Translations <u>Statistics 1</u> Mean, Median, Mode and Range Frequency Tables Estimated Mean <u>Statistics 2</u> Bar Charts Line Graphs Frequency Diagrams Pie Charts Scatter Graphs	<u>Transformations</u> Coordinates, Axis, Axes, x-axis, y-axis, Origin, Quadrant, Translation, Reflection, Rotation, Transformation, Object, Image, Congruent, congruence, Mirror Line, Vector, Centre of Rotation <u>Statistics 1</u> Mean, Median, Mode, Range, Measure, Data, Statistics, Approximate, Round Data, Categorical Data, Discrete, Data, <u>Statistics 2</u> 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,	<u>Transformations</u> Coordinates, symmetry <u>Statistics 1</u> Averages, simple graphs <u>Statistics 2</u> Knowledge of graphs, Tables and Charts, Read and Represent Data, Ordering Numbers, X and Y Axis	English - Mathematical Vocabulary <u>Transformations</u> Spring1 – Art – Enlargements <u>Statistics 1 / Statistics 1</u> Autumn 1 – English – Oliver Twist – Analysing data All Year – PSHE – Statistics/trends on various key topics Spring 1 – Humanities – Population Growth