Maths- Key Stage 3

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The Maths department offer skills in line with the national curriculum under five categories namely: algebra, calculating, geometry and measures, number systems, and statistics and probability. Teaching is engaging which enables pupils to acquire key mathematical skills that builds on their prior knowledge and addresses any gaps in understanding. The Maths curriculum is supplemented by access to White Rose Maths subscription. Students works towards Entry Level Certificate, Award in Number and Measure and or GCSE.

Entry Level qualification is available at Entry Level 1, Entry Level 2 or Entry Level 3). The Pearson Edexcel Entry Level Certificate in Mathematics consists of one externally-set test and one externally-set task for Entry 1 and 2 and two externally-set tests and one externally-set task for Entry 3.

Award in Number and Measure These Level 1 and Level 2 Awards qualifications consist of a single assessment at each level. Students are entered at either Level 1 or Level 2. Each assessment consists of two sections. Each award is pass or fail.

GCSE qualification-There are two tiers of entry available. Each student is permitted to take assessments in either the Foundation tier or Higher tier. All three papers must be from the same tier of entry and must be completed in the same assessment series.

Syllabus materials KS4:

Edexcel Entry Level Certificate Mathematics | Pearson qualifications

Edexcel Awards in Number and Measure | Pearson qualifications

Maths GCSE | Edexcel GCSE Mathematics (2015) | Pearson qualifications

Careers in Maths:
1438_My Learning My Future_Mathematics_FINAL.pdf (careersandenterprise.co.uk)

Schemes of work:

*Although there is a clear structure to the maths curriculum, additional time may be needed to review content from previous years.

	Autumn One	Autumn Two	Spring One	Spring Two	Summer One	Summer Two
Year 7	**Number-Calculating and place value** • Place value • To use < and > to compare numbers • Number lines • Rounding • 4 operations	**Geometry and Measure 1- Mensuration** • Calendars • Time • Money **Key vocabulary** • Months • Days	**Number – Properties of number** • Multiples Key vocabulary • Times table • Multiple **Algebra 2- Functions, coordinates and graphs**	**Geometry and measure – Constructions** • 2D shapes • Key Vocabulary • Shape • Circle • Semi-circle • Triangle	**Number- Fractions, Decimals Percentages** • Reading decimal scales • Mixed numbers • Introduction to fractions **Key Vocabulary**	**Geometry and Measure - Transformations** • Reflection Key vocabulary • Mirror line • Reflect • Reflection

	Key vocabulary • Digit/ones • Tens • Hundred • Thousands • Placeholder • Partitioning • Nearest • Multiplication • Division • Addition • Subtraction • Greater than • Less than • Equal to • Negative	• Weeks • Hours • minutes • Seconds • 12 hour clock • 24 hour clock • Analogue • Digital • Yeas (inc leap) • Pound • Pence **Geometry and Measure-menstartion** • Measuring • Perimeter **Key Vocabulary** • Centimetre • Millimetre • Perimeter • Area • Square centimetre • Length • Width •	• Coordinates Key Vocabulary • Axes • Coordinate **Geometry and Measure-geometrical reasoning** • Angles (different types) **Key vocabulary** • Angle • Degrees • Acute • Right angle • Obtuse • straight • Reflex	• Square • Rectangle • Pentagon • Hexagon • Octagon • Heptagon • Parallelogram • Rhombus **Algebra -Sequences** • Missing numbers in simple calculations • Function machines • Continuing a sequence **Key vocabulary** • Sequence • Unknown number • Position • Difference • Input • Output • Inverse	• Mixed number • Decimal • Decimal point • Fraction **Extension Topic- Probabaility** • Probability scale **Key vocabulary** • Chance • Likely/unlikely • Probability scale	• Line of symmetry **Handling data- Interpreting and representing data** • Interpret/draw pictographs and bar charts • Use a tally chart • Interpret data Key vocabulary • Questionnaire • Data • Information • Tally • Chart • Pictogram • Bar chart • Frequency
Year 8	**Number- Calculating and place value** • Written methods of multiplication and division • Multiplication/division by 10, 100, 1000 **Key vocabulary** • Column method • Grid method • Long multiplication • Long/Short division • Approximate • Decimal • Product	**Handling Data - interpreting and representing data** • Mode, median, mean and range **Key Vocabulary** • Median • Mode • Range • Data • Order • Modal • Simplify **Geometry and Measure-Mensuration**	**Number – Properties of number** • Multiples • Factors • Square/cube numbers Key vocabulary • Factor • Divisible • Multiply • Square/cube number • Square/cube root **Algebra - Functions, coordinates and graphs** • Coordinates- 4 quadrants	**Geometry and measure – Constructions** • 3d shapes-faces, vertices, edges • Key Vocabulary • 3D • Sphere • Cylinder • Cube • Cuboid • Cone • Pyramid • Prism • Faces • Vertices • Edges	**Number- Ratio and proportion** • Understand ratio • Link ratio to fractions • Simplifying ratio **Key vocabulary** • Ratio • Sharing **Handling data –Probability** • Probability scale • Listing outcomes • Experimental probability **Key vocabulary**	**Geometry and Measure-Transformations** • Reflection (diagonal line) • Rotation symmetry Key vocabulary • Order of rotational symmetry • Rotation • Centre of rotation **Handling data Interpreting and representing data** • Two way tables • Data collection • Dual bar charts

	Number-Fractions, decimals and percentages • Rounding decimals • Add/subtract decimals • Improper fractions and mixed numbers • Equivalent fractions • Simplifying a fraction • Introduction to percentages 10%, 25% 50% **Key Vocabulary** • Denominator • Numerator • Equivalent fractions • Fraction wall • Improper fraction	• Appropriate measures and units • Perimeter and area- square, rectangle • Measuring and drawing angles • Calculating missing angles **Key vocabulary** • Protractor • Angles around a point • Angles on a straight line	Key Vocabulary • X axis • Y axis • Quadrant • Negative **Geometry and Measure - geometrical reasoning** • Properties of triangles/quadrilaterals **Key vocabulary** • Quadrilateral • Scalene triangle • Isosceles triangle • Equilateral triangle • Right angle triangle	**Algebra-sequences** • Function machines (1 and 2 step) • Term to term rule **Key vocabulary** • Rule • Term • Term to term **Algebra - Equations** • Collecting like terms • 1 step linear equations **Key vocabulary** • Like terms • Equation •	• Outcome • Chance • Likely/unlikely • Fair • Probability scale • Event	**Key vocabulary** • Survey • Frequency • Two way table • dual
Year 9	**Number- Calculating and place value** • Rounding (SF) • Negative numbers (4 operations) • Order of operations **Key vocabulary** • Order of operations • Significant Figure • Positive • Negative **Number-Fractions, decimals and percentages** • Multiply/divide decimals • Fraction/percentage of a Quantity • Multiply/divide fractions • Add/subtract fractions	**Handling data -Stastical Measure** • Grouped frequency • Continuous data **Key vocabulary** • Formula • Modal • Grouped frequency table • Continuous data **Geometry and Measure -Mensuration** • Perimeter and area- triangle, parallelogram and trapezium • Perimeter and area of compound shapes **Key vocabulary** • Capacity • Volume • litre	**Number – Properties of number** • Primes • LCM • HCF **Key vocabulary** • Lowest common multiple • Highest common factor • Prime number **Algebra Functions, coordinates and graphs** • Coordinates and midpoints **Geometry and Measure- geometrical reasoning** • Drawing triangles • Angles rules **Key vocabulary**	**Geometry and measure– constructions** • Nets • Surface area Key vocabulary • Construct • net **Algebra -sequences** • Nth term • Triangular numbers • Fibonacci sequence **Key vocabulary** • Triangular numbers • Square numbers • nth term • Fibonacci **Algebra - equations**	**Number- Ratio and proportion** • Sharing on a ratio • Solving ratio problems **Key vocabulary** • Ratio • Sharing **Handling data –Probability** • Theoretical and experimental probability **Key vocabulary** • Experimental • Theoretical • Trial • Combined event	**Geometry and Measure- transformations** • Rotate a shape around a point • Translate a shape **Key vocabulary** • Translate • Translation • Rotation **Handling data- Interpreting and representing data** • Scatter graphs and correlation • Venn diagrams • Interpret Pie charts **Key vocabulary** • Pie chart • Mean

	Key Vocabulary • Quantity	• Compound shape	• Calculate • Opposite angles • Alternate angles • Corresponding angles • Suitable degree of accuracy • Angles around a point • Angles on a straight line	• Collecting like terms • Solving equations/Expanding brackets **Key vocabulary** • Brackets • Substitute • Equation • Expression • Expand • Multiply out		• Assumed mean • Average • Correlation- positive, negative • Scatter graph • Venn • Sector • Angle