



Blackpool Aspire Academy Mathematics Department



Curriculum Overview – Autumn Term

Unit of Work	Level 3/4	Level 4/5	Level 5/6	Level 6/7	Level 7/8
Introductory Unit 0.5 Week	Basic Number Skills Column Method <ul style="list-style-type: none"> Addition & Subtraction Grid Method <ul style="list-style-type: none"> Multiply 1 digit by 2 digit 	Basic Number Skills Column Method (Addition/Subtraction) Grid Method <ul style="list-style-type: none"> Multiply 1 digit by 2 digit Multiply 2 digit by 2 digit Short Long Division	Problem Solving with Four Operations	Problem Solving with Four Operations	Basic Number Skills <ul style="list-style-type: none"> Column Method Grid Method Short Long Division Fractions of Amounts Percentages of Amounts
Statistics 1 1 Week	Averages & Range <ul style="list-style-type: none"> Mode Range 	Averages & Range <ul style="list-style-type: none"> Mode, Median, Mean (& Problems) Range 	Averages & Range <ul style="list-style-type: none"> Problem solving with averages Mode/Mean from Discrete Tables 	Averages & Range <ul style="list-style-type: none"> Mode, Median & Mean Mean and Mode from Discrete & Grouped Data 	Averages & Range <ul style="list-style-type: none"> Averages from Tables Quartiles & IQR
Number 1 1 Week	Negative Numbers & Decimals <ul style="list-style-type: none"> Ordering Add/Subtract Worded Questions 	Negative Numbers & Decimals <ul style="list-style-type: none"> Ordering Add/Subtract Multiply (Limit to decimal by whole number) Worded Questions 	Negative Numbers & Decimals <ul style="list-style-type: none"> Ordering Add/Subtract Multiply/Divide (Limit to 1dp by 1dp) Worded Questions 	Negative Numbers & Decimals <ul style="list-style-type: none"> Problem Solving with Negative Numbers Multiplying Decimals Review 	Negative Numbers & Decimals <ul style="list-style-type: none"> Problem Solving with Negative Numbers Review Multiplying & Dividing Decimals Intro to recurring decimals
Algebra 1 2 Weeks	Terms, Expressions, Formulae <ul style="list-style-type: none"> Function Machines Algebra Meanings Simplification <ul style="list-style-type: none"> Collecting Terms Multiplying Terms by Whole Numbers 	Terms, Expressions, Formulae <ul style="list-style-type: none"> Function Machines Substituting into Word Formulae Simplification <ul style="list-style-type: none"> Collecting Terms Multiplying Terms by Numbers Expanding Single Brackets 	Terms, Expressions, Formulae <ul style="list-style-type: none"> Substituting into Word Formulae Simple Substitution Simplification <ul style="list-style-type: none"> Collecting Terms Simple Index rules Expand & Factorise (Single Brackets) Expand Double Brackets 	Simplification <ul style="list-style-type: none"> Simple Indices Rules Expand Brackets Factorising Expand Double & Triple Brackets 	Simplification <ul style="list-style-type: none"> Simple Indices Rules Expand Single, Double & Triple Brackets Factorise Quadratic Expressions
Assessment 1					
Geometry 1 1 Week	Measuring Lengths Area & Perimeter <ul style="list-style-type: none"> By Measuring By counting squares Formula for rectangles 	Area and Perimeter <ul style="list-style-type: none"> Standard Shapes by counting squares and measuring & by formulae 	Area and Volume <ul style="list-style-type: none"> Standard Shapes Compound Shapes Cube, Cuboids Surface area of Cube/Cuboids 	Circles <ul style="list-style-type: none"> Area and Circumference Labelling Parts Area & Volume <ul style="list-style-type: none"> Standard Shapes Review Volume & Surface Area of Prisms 	Circles <ul style="list-style-type: none"> Area and Circumference Sectors and Arcs Area & Volume <ul style="list-style-type: none"> Volume of Prisms Review Pyramids
Number 2 2 Weeks	Integers <ul style="list-style-type: none"> Multiply & Divide Word Problems Fractions <ul style="list-style-type: none"> Shading Fractions Fractions of amounts Equivalent Fractions Percentages <ul style="list-style-type: none"> Find 10%, 5%, 20% 	Fractions <ul style="list-style-type: none"> FDP Equivalence / Conversions Equivalent Fractions Fractions of Amounts Add/Subtract (Common Denominator) Percentages <ul style="list-style-type: none"> Finding Percentages (with a calculator) 	Fractions <ul style="list-style-type: none"> Review FDP Equivalence Convert between Mixed & Top Heavy Simplifying & Equivalence Fractions of Amounts Add/Subtract/Multiply Fractions Percentages <ul style="list-style-type: none"> Finding Percentages & Increase/Decrease Percentage Change 	Fractions <ul style="list-style-type: none"> Add/Subtract Fractions Multiplication & Division Percentages <ul style="list-style-type: none"> Finding Percentages (Multipliers) Percentage Change Finding Percentage Change (Review) Finding Original Value 	Fractions <ul style="list-style-type: none"> Four Rules (Mixed Numbers) Reciprocals Percentages <ul style="list-style-type: none"> Find Percentage Change Find Original Value Compound Interest / Repeated Percentage Change Worded Questions
Algebra 2 2 Weeks	Simplification <ul style="list-style-type: none"> Collecting Terms Multiplying Terms by Whole Numbers Equations <ul style="list-style-type: none"> Appropriate use of the = sign (Equations without symbols) 	Simplification <ul style="list-style-type: none"> Collecting Terms Expand Brackets Solve <ul style="list-style-type: none"> Solve simply equations (1 step) 	Solving Equations <ul style="list-style-type: none"> Two Term Three Term Three Term (with brackets) 	Solving Equations <ul style="list-style-type: none"> Forming & Solve Linear Equations Three Term (with brackets) Inequalities <ul style="list-style-type: none"> Representing on Number Lines Solving 	Inequalities <ul style="list-style-type: none"> Representing on Number Lines Solving Solving Equations <ul style="list-style-type: none"> Form & Solve Linear Equations Linear Equations with Fractions Quadratic Equations by Factorising
Statistics 2 1 Week	Graphs & Charts Draw: <ul style="list-style-type: none"> Pictograms Venn & Carroll Diagrams 	Graphs & Charts Draw & Interpret: <ul style="list-style-type: none"> Pictograms, Bar Charts, Line Graphs, Pie Charts 	Graphs & Charts Interpret: <ul style="list-style-type: none"> Pie Charts Draw & Interpret: <ul style="list-style-type: none"> Tally Charts, Frequency Tables Scatter Graphs 	Graphs & Diagrams Draw & Interpret: <ul style="list-style-type: none"> Pie Charts, Scatter Graphs & Correlation, Stem & Leaf 	Graphs & Diagrams Draw & Interpret: <ul style="list-style-type: none"> Cumulative Frequency Box Plots



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Curriculum Overview – Spring Term

Unit of Work	Level 3/4	Level 4/5	Level 5/6	Level 6/7	Level 7/8
Geometry 2 2 Weeks	Angles <ul style="list-style-type: none"> Classifying Angles Naming Angles Measure and draw angles to nearest degree 	Angles <ul style="list-style-type: none"> Measure and draw angles to nearest degree Angle Sum of Triangle and Straight Line Angles at a Point 	Angles <ul style="list-style-type: none"> Measure and draw angles to nearest degree Angle Sum of Triangle and Straight Line Angles at a Point Angles in Parallel Lines Interior / Exterior Angles of Polygons 	Angles <ul style="list-style-type: none"> Angles in Parallel Lines Interior / Exterior Angles of Polygons Pythagoras Theorem <ul style="list-style-type: none"> Find longest and shorter sides 	Angles <ul style="list-style-type: none"> Review Parallel Lines Review Polygons Pythagoras Theorem <ul style="list-style-type: none"> Find longest and shorter sides Trigonometry <ul style="list-style-type: none"> Introduction to Trig (Identify whether to use Sin, Cos or Tan)
Number 3 1 Week	Properties of Number <ul style="list-style-type: none"> Factors, Multiples, Primes & Squares Calculations <ul style="list-style-type: none"> Practice Four Rules 	Properties of Number <ul style="list-style-type: none"> Factors, Multiples, Primes & Squares and Square Roots HCF/LCM by Listing Factors/Multiples Find the Prime Factor Decomposition 	Properties of Number <ul style="list-style-type: none"> Factors, Multiples, Primes Squares, Cubes Square Roots Cube Roots Find the Prime Factor Decomposition HCF/LCM by Venn Diagram 	Properties of Number <ul style="list-style-type: none"> Find the Prime Factor Decomposition HCF/LCM by Venn Diagram Use Index Notation for Positive integer powers 	Properties of Number <ul style="list-style-type: none"> HCF/LCM by Venn Diagram <ul style="list-style-type: none"> Including Algebraic Expressions ??
Algebra 3 1.5 Weeks	Sequences <ul style="list-style-type: none"> Recognise a sequence of numbers (odd and even numbers) Recognise and continue a range of sequences (limited to add/subtract) 	Sequences <ul style="list-style-type: none"> Recognise and continue a range of sequences (limited to add/subtract) Be able to describe the term to term 	Sequences <ul style="list-style-type: none"> Recognise and continue a range of sequences (limited to add/subtract) Be able to describe the term to term Be able to find the position to term rule for linear sequences 	Sequences <ul style="list-style-type: none"> Be able to describe the term to term Be able to find the position to term rule for any linear sequence Be able to find the position to term rule of simple quadratic sequences ($x^2 + a$ or ax^2) 	Sequences <ul style="list-style-type: none"> Be able to find the position to term rule for any linear sequence Be able to find the position to term rule of simple quadratic sequences ($x^2 + a$ or ax^2) Be able to find the position to term rule of any quadratic sequence
Assessment 2 – SAT PAPER 1					
Geometry 3 1 Week	Recognising Shapes <ul style="list-style-type: none"> Classify 3D and 2D shapes using appropriate vocabulary Use the properties of 2D and 3D shapes Recognise nets of 3D shapes Make 3D models 	Recognising Shapes <ul style="list-style-type: none"> Use the properties of 2D and 3D shapes Make 3D models Identify all symmetries of s shape Constructions <ul style="list-style-type: none"> Draw angles 	Constructions <ul style="list-style-type: none"> Draw angles Use straight edge and compass to do standard constructions 	Constructions <ul style="list-style-type: none"> Use straight edge and compass to do standard constructions Solve simple loci problems 	Constructions <ul style="list-style-type: none"> Use straight edge and compass to do standard constructions Solve more complex loci problems
Statistics 3 1 Week	Probability <ul style="list-style-type: none"> Understand and use the probability scale 0 to 1 Find simple probabilities 	Probability <ul style="list-style-type: none"> Understand and use the probability scale 0 to 1 Find simple probabilities 	Probability <ul style="list-style-type: none"> Understand and use the probability scale 0 to 1 Find simple probabilities Experimental Probability Sample (Probability) Space Diagrams 	Probability <ul style="list-style-type: none"> Experimental Probability Sample (Probability) Space Diagrams Using probability as an estimator 	Probability <ul style="list-style-type: none"> Experimental Probability Sample (Probability) Space Diagrams Tree Diagrams (Independent & Conditional)
Geometry 4 1 Week	Measures <ul style="list-style-type: none"> Standard Units of Length, Mass etc Use Standard Units of Time Units <ul style="list-style-type: none"> Convert between Metric Units Choose and use appropriate measures 	Measures <ul style="list-style-type: none"> Choose and use appropriate measures Units <ul style="list-style-type: none"> Convert between Metric Units Choose and use appropriate measures Read and interpret scales 	Units <ul style="list-style-type: none"> Convert between Metric Units Choose and use appropriate measures Read and interpret scales Convert between Metric & Imperial 	Units <ul style="list-style-type: none"> Read and interpret scales Convert between Metric & Imperial Units 	Units <ul style="list-style-type: none"> Convert between Metric & Imperial Units Dimensional Analysis



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Curriculum Overview – Summer Term

Unit of Work	Level 3/4	Level 4/5	Level 5/6	Level 6/7	Level 7/8
Number 4 1 Week	Multiplying/Dividing <ul style="list-style-type: none"> Multiply & Divide by 10, 100, 1000 Multiply Decimals (single dp) by whole numbers 	Multiplying/Dividing <ul style="list-style-type: none"> Multiply & Divide decimals by 10,100 and 1000 Multiply Decimals (single dp) by whole numbers Multiply & Divide decimals to two decimal places 	Multiplying/Dividing <ul style="list-style-type: none"> Multiply & Divide decimals by 10,100 and 1000 Multiply & Divide decimals to two decimal places Powers <ul style="list-style-type: none"> Simple Index Rules 	Multiplying/Dividing <ul style="list-style-type: none"> Understand the effect of multiplying and dividing by 0 and 1 Powers <ul style="list-style-type: none"> Recap Simple Index Rules Standard Form <ul style="list-style-type: none"> Write numbers in standard form / ordinary numbers 	Powers <ul style="list-style-type: none"> Negative Integer Powers Fractional Powers (unitary) Standard Form <ul style="list-style-type: none"> Recap Write numbers in standard form / ordinary numbers Four rules with numbers in standard form
Algebra 4 2 Weeks	Coordinates/Graphs <ul style="list-style-type: none"> Use and interpret coordinates in the first quadrant Use function machines in upto two different functions Real Life Graphs <ul style="list-style-type: none"> Read from Conversion Graphs Interpret Distance-Time Graphs 	Coordinates/Graphs <ul style="list-style-type: none"> Use and interpret coordinates in all four quadrants Use function machines in upto two different functions Plot coordinates that form straight line graphs Real Life Graphs <ul style="list-style-type: none"> Conversion Graphs Conversion Graph Problems Interpret Distance-Time Graphs 	Coordinates/Graphs <ul style="list-style-type: none"> Use and interpret coordinates in all four quadrants Use of function machines Generate points that form a linear function ($y=ax$, $y=x+a$) Plot simple linear functions ($y=ax$, $y=x+a$) Real Life Graphs <ul style="list-style-type: none"> Plot and Interpret Distance Time Graphs Conversion Graph Problems Plot graphs of real life problems 	Coordinates/Graphs <ul style="list-style-type: none"> Plot linear functions using a plotting table ($y=mx+c$) Plot quadratic and cubic functions Understanding of $y=mx+c$ (Gradient and y intercept) Calculate gradient between two points Find the equation of a line given two points Parallel Lines Real Life Graphs <ul style="list-style-type: none"> Plot and interpret Distance Time Graphs Solve problems using Conversion Graphs 	Coordinates/Graphs <ul style="list-style-type: none"> Plot linear functions using a plotting table ($y=mx+c$) Plot quadratic and cubic functions Understanding of $y=mx+c$ (Gradient and y intercept) Calculate gradient between two points Find the equation of a line given two points Parallel & Perpendicular Lines Real Life Graphs <ul style="list-style-type: none"> Plot and interpret Distance Time Graphs Solve problems using Conversion Graphs
Assessment 3 (SAT PAPER 2) (Year 9 will be BOTH PAPERS)					
Number 5 2 Weeks	Rounding <ul style="list-style-type: none"> Revisit place value Round to nearest 10, 100, 1000 Round decimals to 1dp Ratio & Proportion <ul style="list-style-type: none"> Understand the meaning of ratio, and simplify where appropriate Create/Write a ratio 	Rounding <ul style="list-style-type: none"> Round to nearest 10, 100, 1000 Round decimals to 1 and 2dp Ratio & Proportion <ul style="list-style-type: none"> Understand ratio, and be able to simplify 	Rounding <ul style="list-style-type: none"> Round decimals to 1 and 2dp Begin to round to significant figures Ratio & Proportion <ul style="list-style-type: none"> Understand ratio, and be able to simplify Divide a quantity into a ratio Solve problems with ratio 	Rounding <ul style="list-style-type: none"> Rounding to significant figures Find the Upper/Lower Bounds Ratio & Proportion <ul style="list-style-type: none"> Understand ratio, and be able to simplify Divide a quantity into a ratio Solve problems with ratio Understand and use proportionality 	Rounding <ul style="list-style-type: none"> Rounding to significant figures Upper/Lower Bound Problems Ratio & Proportion <ul style="list-style-type: none"> Understand and use proportionality Direct & Inverse Proportion Problems (yax)
Algebra 5 2 Weeks	Simplifying <ul style="list-style-type: none"> Collect like terms Expand Bracket Solving Equations <ul style="list-style-type: none"> One operation 	Simplifying <ul style="list-style-type: none"> Collect Terms Expand Brackets Solving Equations <ul style="list-style-type: none"> Solve simple equations (eg $2x+1=9$) 	Solving Equations <ul style="list-style-type: none"> Solve simple equations (eg $2x+1=9$) Solve equations with brackets ($3(2x+1)=9$) Solve equations with unknowns on both sides 	Solving Equations <ul style="list-style-type: none"> Solve equations with brackets ($3(2x+1)=9$) Solve equations with unknowns on both sides Simple Linear Fraction Equations Solve Simultaneous Equations by elimination (pictorially) 	Solving Equations <ul style="list-style-type: none"> Solve equations with unknowns on both sides Solve quadratic equations Solve Simultaneous Equations by elimination
Statistics 4 1 Week	Data Collection <ul style="list-style-type: none"> Grouping Data Record Tally Chart Interpreting & Representing Data <ul style="list-style-type: none"> Interpret <ul style="list-style-type: none"> Two Way Tables Interpret & Draw <ul style="list-style-type: none"> Pictograms 	Data Collection <ul style="list-style-type: none"> Writing Questionnaires Representing Data <ul style="list-style-type: none"> Bar Charts Dual Bar Charts 	Data Collection <ul style="list-style-type: none"> Writing Questionnaires Representing Data <ul style="list-style-type: none"> Bar Charts Dual Bar Charts Pie Charts 	Data Collection <ul style="list-style-type: none"> Primary/Secondary Data Discrete/Continuous Data Questionnaires Design & Error Correction Representing Data <ul style="list-style-type: none"> Pie Charts 	Data Collection <ul style="list-style-type: none"> Primary/Secondary Data Discrete/Continuous Data Questionnaires & Sampling Representing Data <ul style="list-style-type: none"> Histograms (Equal, and Unequal Class Widths)
Assessment 4 – FULL SAT PAPER 1 & 2 FOR Y7/8					
Geometry 5 1.5 weeks	Transformations <ul style="list-style-type: none"> Reflections (Horizontal / Vertical Lines) Translations (Horizontal or Vertical) Rotation (Around a vertex) Tessellation 	Transformations <ul style="list-style-type: none"> Enlargement Reflections Translations (Horizontal or Vertical) Describe Simple Rotation, Reflection and Translation Tessellation 	Transformations <ul style="list-style-type: none"> Enlargement from a Centre Reflections Translations (using vectors) Rotation from a Centre 	Transformations <ul style="list-style-type: none"> Fractional Enlargement Describing Transformations (Not Rotation) 	Transformations <ul style="list-style-type: none"> Negative Fractional Enlargement Describing any Transformation