WADE DEACON HIGH SCHOOL

Key Stage 3 Curriculum Journey: Mathematics

The maths curriculum is designed to inspire students and to deepen their understanding of key mathematical knowledge and concepts to enable them to use and apply their knowledge both in and outside a classroom. Our aim is to raise students understanding of the importance of mathematics and how it is used every day of our lives, in turn raising their aspirations and options for future career paths.

YEAR 7 CURRICULUM JOURNEY

	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Topic	Unit 1: Analysing and Displaying Data	Unit 3: Expressions functions and formulae	Unit 5: Fractions and percentages	Unit 7: Ratio and Proportion	Unit 8: Lines and Angles	Unit 10: Transformations
	Unit 2: Number Skills	Unit 4: Decimals and measures	Unit 6: Probability		Unit 9: Sequences and Graphs	
Key Knowledge, Skills & Understanding	Find the mode, median, mean and range of a data set Compare data using an average and the range Group data to construct frequency tables Draw and interpret line graphs and bar charts Calculate using the four operations: add, subtract, multiply and divide Solve problems involving money and time Calculate with negative numbers Recall factors, multiples, primes and squares	Collect like terms Multiply and divide terms Write simple expressions and formulae Substitute positive integers into expressions Order and round decimals Add and subtract decimals Multiply and divide decimals by whole numbers Use metric units of measure Calculate the area and perimeter of 2d shapes	Compare and simplify fractions Add and subtract fractions Calculate fractions of an amount Calculate simple percentages of amounts Use the language of probability Calculate simple probability and outcomes	Use direct proportion Write a ratio Share into a ratio Solve problems using proportion	Measure and draw angles Accurately draw a triangle Recall angle facts including angles in a triangle and angles in a quadrilateral Find the term to term and position to term rules for arithmetic sequences To identify geometric sequences Label coordinates and find the mid-point of a line Plot a straight- line graphs	Identify congruent and similar shapes Enlarge a shape given a positive scale factor Translate, rotate and reflect a shape on a coordinate grid.
KS3 National Curriculum Links	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239058/SECONDARY_national_curriculum_-_Mathematics.pdf					
MAPs	Unit 1: Analysing and Displaying Data Unit 2: Number Skills	Unit 3: Expressions functions and formulae Unit 4: Decimals and measures	Unit 5: Fractions and percentages Unit 6: Probability	Unit 7: Ratio and Proportion	Unit 8: Lines and Angles Unit 9: Sequences and Graphs	Unit 10: Transformations

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	YEAR 8 CURRICULUM JOURNEY					
	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Topic	Unit 1: Number	Unit 3: Statistics, charts and graphs	Unit 5: Real-life equations $$F = \frac{9}{5}C + 32$$ Celsius to Fahrenheit Formula	Unit 7: Lines and angles 40°	Unit 8: Calculating with fractions numerator (number of parts we have) $\frac{2}{5}$ denominator (total parts in whole)	Unit 10: Percentages, decimals and fractions 0.25 $\frac{1}{4}$ 25%
	Unit 2: Area and volume	Unit 4: Expressions and equations $3x + 6 = 12$ expression expression equation	Unit 6: Decimals and ratio Ones Tens Decimal Point 1/10 (tenths) 1/100 (hundredths) 1/1000 (thousandths) 17.591 10x Bigger 10x Smaller		Unit 9: Straight-line graphs	
Key Knowledge, Skills & Understanding	Division and divisibility rules Four operations with negatives Square, cubes and their roots Using prime factors to find HCF and LCM Area of a triangle, parallelogram and trapezium Volume of cubes and cuboids 2D representations of 3D solids Surface area of cubes and cuboids Converting measures	Pie Charts 2-way tables Stem and leaf diagrams Scatter graphs Compare data using charts and averages Simplify algebraic powers Expand and factorise expressions Solve problems using two step equations	Conversion graphs Distance-time graphs Other real-life graphs Place value calculations Calculations with decimals Ratio and proportion with decimals Unit ratio	Angles in parallel lines Interior and exterior angles in polygons Solving geometric problems	Four operations with fractions Calculating with mixed numbers Direct proportion and graphs Gradient of straight-line graphs Write the equation of a line in the form y = mx + c	Equivalence between fraction, decimals and percentages Recurring and terminating decimals Percentage increase and decrease Using percentage multipliers
KS3 National Curriculum Links	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239058/SECONDARY_national_curriculum_-_Mathematics.pdf					
MAPs	Unit 1: Number Unit 2: Area and volume	Unit 3: Statistics, charts and graphs Unit 4: Expressions and equations	Unit 5: Real-life equations Unit 6: Decimals and ratio	Unit 7: Lines and angles	Unit 8: Calculating with fractions Unit 9: Straight-line graphs	Unit 10: Percentages, decimals and fractions

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YEAR 9 CURRICULUM JOURNEY						
	Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Topic	Unit 1: Indices and standard form	Unit 3: Dealing with data	Unit 5: Constructions	Unit 7: Circles, Pythagoras and prisms	Unit 8: Graphs	Unit 10: Comparing shapes
	Unit 2: Expressions and formulae	Unit 4: Multiplicative reasoning	Unit 6: Sequences, inequalities, equations and proportion		Unit 9: Probability	
Key Knowledge, Skills & Understanding	Index Laws Working in standard form Solving equations with fractions and unknowns on both sides Use priority of operations with algebraic expressions Write and use formulae Change the subject of a formula Expand double brackets	Types of data Data collection Averages from frequency tables Back to back stem and leaf diagrams Analysing, presenting and comparing data Enlargement with fractional and negative scale factors Percentage change and reverse percentages Compound measures Direct and inverse proportion, best buy	Using scales Perpendicular and angle bisectors Constructing triangles and loci nth term of arithmetic sequences Non-linear sequences Representing inequalities Algebraic direct and inverse proportion	Circumference and area of a circle Pythagoras Theorem Volume of prisms and cylinders Errors and bounds	Using y=mx+c Draw graphs in the form ax+by=c Simultaneous equations Quadratic functions Draw and interpret other non-linear graphs Experimental and theoretical probability Sample space diagrams Venn diagrams	Solve problems involving similar triangles Right angled triangle trigonometry
KS3 National Curriculum Links	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239058/SECONDARY_national_curriculum_-_Mathematics.pdf					
MAPs	Unit 1: Indices and standard form Unit 2: Expressions and formulae	Unit 3: Dealing with data Unit 4: Multiplicative reasoning	Unit 5: Constructions Unit 6: Sequences, inequalities, equations and proportion	Unit 7: Circles, Pythagoras and prisms	Unit 8: Graphs Unit 9: Probability	Unit 10: Comparing shapes