Upper KS3 – Toucans – WRM Worksheet/Edexcel Foundation Book 1/2/3 references for academic year Easter '23 – Easter '24

Summer Term 5

	Upper KS3	WRM references
	Place value	**Y7 Autumn Block 4 – Place value & ordering integers & decimals:** Recognise the place value of any number in an integer up to one billion; Understand and write integers up to one billion in words and figures; Round integers to the nearest power of ten; Compare two numbers using =, ≠, <, >, ≤, ≥
	Place value continued	**Y7 Autumn Block 4 – Place value & ordering integers & decimals:** Order a list of integers; Understand place value for decimals; Position decimals on a number line; Compare and order any number up to one billion
	Equality & equivalence	**Y7 Autumn Block 3 – Equality & equivalence:** Understand and use fact families, numerically and algebraically; Solve one-step linear equations involving +/– using inverse operations; Solve one-step linear equations involving x/÷ using inverse operations; Understand the meaning of like and unlike terms
	Understand & use algebraic notation	**Y7 Autumn Block 3 – Equality & equivalence:** Understand the meaning of equivalence; Simplify algebraic expressions by collecting like terms, using the ≡ symbol; **Y7 Autumn Block 2 – Understand & use algebraic notation:** Use diagrams and letters to generalise number operations; Substitute values into single operation expressions; Substitute values into two-step expressions; Generate sequences given an algebraic rule
	Fraction, decimal & percentage equivalence	**Y7 Autumn Block 5 – Fraction, decimal & percentage equivalence:** Represent tenths and hundredths as diagrams; Represent tenths and hundredths on number line; Interchange between fractional and decimal number lines; Convert between fractions and decimals – tenths and hundredths

Summer Term 6

	Upper KS3	WRM references
	Fraction, decimal & percentage equivalence continued	**Y7 Autumn Block 5 – Fraction, decimal & percentage equivalence:** Understand the meaning of percentage using a hundred square; Convert fluently between simple fractions, decimals and percentages; Represent any fraction as a diagram; Represent fractions on number lines
	Fraction, decimal & percentage equivalence continued	**Y7 Autumn Block 5 – Fraction, decimal & percentage equivalence:** Identify and use simple equivalent fractions; Understand fractions as division; Convert fluently between fractions, decimals and percentages
	Ratio & scale	**Y8 Autumn Block 1 – Ratio & Scale:** Understand the meaning and representation of ratio; Understand and use ratio notation; Solve problems involving ratios of the form 1 : n (or n : 1); Solve problems involving ratios of

		the form m : n
	Multiplicative change	**Y8 Autumn Block 2 – Multiplicative change:** Solve problems involving direct proportion; Explore conversion graphs; Convert between currencies; Understand scale factors as multiplicative representations;
	Multiplicative change continued	**Y8 Autumn Block 2 – Multiplicative change:** Draw and interpret scale diagrams Interpret maps using scale factors and ratios; End of Block Assessment

Autumn Term 1

	Upper KS3	WRM references
	Solving problems with addition & subtraction	**Y7 Spring Block 1 – Solving problems with addition & subtraction:** Properties of addition and subtraction; Use formal methods for addition of integers; Use formal methods for addition of decimals
	Solving problems with addition & subtraction continued	**Y7 Spring Block 1 – Solving problems with addition & subtraction:** Use formal methods for subtraction of integers; Use formal methods for subtraction of decimals; Choose the most appropriate method: mental strategies, formal written or calculator
	Solving problems with multiplication & division	**Y7 Spring Block 2 – Solving problems with multiplication & division:** Properties of multiplication & division; Understand and use factors; Understand and use multiples
	Solving problems with multiplication & division continued	**Y7 Spring Block 2 – Solving problems with multiplication & division:** Multiply and divide integers and decimals by powers of 10; Use formal methods to multiply integers; Use formal methods to multiply decimals
	Solving problems with multiplication & division continued	**Y7 Spring Block 2 – Solving problems with multiplication & division:** Use formal methods to divide integers; Use formal methods to divide decimals; Understand and use order of operations
	Addition & subtraction of fractions	**Y7 Spring Block 5 – Addition & subtraction of fractions:** Understand representations of fractions; Convert between mixed numbers and fractions; Add and subtract unit fractions with the same denominator; Add and subtract fractions with the same denominator
	Operations & equations with directed numbers	**Y7 Spring Block 4 – Operations & equations with directed numbers:** Understand and use representations of directed numbers; Order directed numbers using lines and appropriate symbols; Perform calculations that cross zero; End of term assessment.

Autumn Term 2

	Upper KS3	WRM references
	Operations & equations with directed numbers continued	**Y7 Spring Block 4 – Operations & equations with directed numbers:** Add directed numbers; Subtract directed numbers; Multiplication of directed numbers; Multiplication and division of directed numbers
	Fractions & percentages of amounts	**Y7 Spring Block 3 – Fractions & percentages of amounts:** Find a fraction of a given amount; Use a given fraction to find the whole and/or other fractions; Find a percentage of a given amount using mental methods; Find a percentage of a given amount using a calculator
	Multiplying & dividing fractions	**Y8 Autumn Block 3 – Multiplying & dividing fractions:** Represent multiplication of fractions; Multiply a fraction by an integer; Find the product of a pair of unit fractions; Find the product of a pair of any fractions
	Multiplying & dividing fractions continued	**Y8 Autumn Block 3 – Multiplying & dividing fractions:** Divide an integer by a fraction; Divide a fraction by a unit fraction; Understand and use the reciprocal Divide any pair of fractions
	Sequences	**Y7 Autumn Block 1 – Sequences:** Describe and continue sequences; Predict and check next term(s); Sequences in a table and graphically; Linear and non-linear sequences
	Sequences continued	**Y7 Autumn Block 1 – Sequences:** Continue linear sequences; Continue non-linear sequences; Explain the term-to-term rule
	Working in the cartesian plane	**Y8 Autumn Block 4 – Working in the cartesian plane:** Work with coordinates in all four quadrants; Identify and draw lines that are parallel to the axes; Recognise and use the line y=x; End of term assessment

Spring Term 1

	Upper KS3	WRM references
	Constructing, measuring & using geometric notation	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Understand and use letter and labelling conventions including those for geometric figures; Draw and measure line segments including geometric figures; Understand angles as a measure of turn
	Constructing, measuring & using geometric notation continued	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Classify angles; Measure angles up to 180°; Draw angles up to 180°; Draw and measure angles between 180° and 360°
	Constructing, measuring & using geometric notation	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Identify perpendicular and parallel lines; Recognise types of triangle; Recognise types of quadrilateral; Identify polygons up to a decagon

	continued	
	Sets & probability	**Y7 Summer Block 4 – Sets & probability:** Identify and represent sets; Interpret and create Venn diagrams; Understand and use the intersection of sets; Understand and use the union of sets
	Sets & probability	**Y7 Summer Block 4 – Sets & probability:** Know and use the vocabulary of probability; Generate sample spaces for single events; **Y8 Autumn Block 6 – Tables & probability;** Construct sample spaces for one or more events; Find probabilities from a sample space
	Prime numbers & proof	**Y7 Summer Block 5 – Prime numbers & proof:** Find and use multiples; Identify factors of numbers and expressions; Recognise and identify prime numbers; End of term assessment
	Prime numbers & proof	**Y7 Summer Block 5 – Prime numbers & proof:** Recognise square and triangular numbers; Find common factors of a set of numbers including the HCF; Find common multiples of a set of numbers including the LCM; Write a number as a product of its prime factors

Spring Term 2

	Upper KS3	WRM references
	Constructing, measuring & using geometric notation	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Interpret simple pie charts using proportion; Interpret pie charts using a protractor; Draw pie charts
	Representing data	**Y8 Autumn Block 5 – Representing data:** Identify different types of data; Read and interpret ungrouped frequency tables; Read and interpret grouped frequency tables; Represent grouped discrete data
	Brackets, equations & inequalities	**Y8 Spring Block 1 – Brackets, equations & inequalities:** Form algebraic expressions; Use directed number with algebra; Multiply out a single bracket
	Brackets, equations & inequalities continued	**Y8 Spring Block 1 – Brackets, equations & inequalities:** Factorise into a single bracket; Expand multiple single brackets and simplify; **Y7 Spring Block 4 – Operations & equations with directed numbers:** Introduction to two-step equations; Solve two-step equations
	Brackets, equations & inequalities continued	**Y8 Spring Block 1 – Brackets,equations & inequalities:** Identify and use formulae, expressions, identities and equations; Understand and solve simple inequalities; Form and solve inequalities End of term assessment

Early KS4 – Emus – WRM Worksheet/Edexcel Foundation Book 1/2/3 references for academic year Easter '23 – Easter '24

Summer Term 5

	Early KS4	WRM references
	Time	**Y5 Summer Block 4 – Converting Units**: Converting units of Time; Timetables **Y4 Summer Block 3 – Time;** Analogue to digital 12hr; Analogue to digital – 24hr
	Measure	**Y6 Spring Block 4 – Converting Units:** Metric measures; Convert metric measures; Calculate with metric measure; Imperial units
FS EL1	Properties of Shape	**Y5 Summer Block 2 – Properties of shapes:** Identify angles; Measuring angles in degrees; Triangles; Quadrilaterals
	Position & Direction	**Y4 Summer Block 6 – Position & Direction:** Describe position; Draw on a grid; Move on a grid; Describe a movement on a grid
	Revision	**End of Block Assessments:** Y5 Converting units; Y4 Time; Y6 Converting units; Y5 Properties of shape; Y4 Position & direction
	EL1 Assessment	**Revision:** EL1 Non calculator & Calculator mock papers and exam practice papers

Summer Term 6

	Early KS4	WRM references
	Dates & Time	**Y1 Summer Block 6 – Time:** Dates; Comparing time **Y2 Summer Block 3 – Time:** O'clock & half past; Quarter past & quarter to
	Number	**Y4 Autumn Block 2 – Addition & Subtraction:** Add two 4-digit numbers – no exchange; Add two 4-digit numbers – more than one exchange; Subtract two 4-digit numbers – no exchange; Subtract two 4-digit numbers – one exchange
FS EL2	Money	**Y2 Autumn Block 3 – Money:** Find the total; Find the difference; Find change; Two step problems
	Money	**Y3 Spring Block 2 – Money:** Pounds & pence; Convert pounds & pence; Add money; Subtract money; Give change
	Dates & time	**Y2 Summer Block 3 – Time:** Hours & days; Find durations of time; Compare durations of time; Telling time to 5 mins

Autumn Term 1

	Early KS4	WRM references
	Recap	**Y5 Autumn Block 1 – Place Value:** Numbers to a million; Compare & order any number; Round numbers to 10,100,1000; Negative numbers
	Measure	**Y6 Spring Block 5 – Perimeter, area & volume**: Shapes same area; Area & perimeter; Area of a triangle (1); Area of a triangle (2)
FS EL2	Measure	**Y6 Spring Block 5 – Perimeter, area & volume:** Area of a parallelogram; What is

		volume; Volume– counting cubes; Volume of a cuboid
	Shape & space	**Y6 Summer Block 2 – Properties of shape:** Recap Drawing lines & angles accurately; Introduce angles; Recap Angles on a straight line; Recap Angles around a point
	Shape & space	**Y6 Summer Block 2 – Properties of shape:** vertically opposite angles; Angles in a triangle; Angles in special quadrilaterals; Draw nets of 3D shapes
	Working with info	**Y6 Summer Block 1 – Statistics:** Read & interpret line graphs; Draw line graphs; Read & interpret pie charts; Draw pie charts
	Revision/ EL2 Assess	**Revision:** EL2 Non calculator & Calculator mock papers and exam practice papers

Autumn Term 2

	Early KS4	WRM references
	Fractions	**Y4 Spring Block 3 – Fractions:** Unit & non unit fractions; What is a fraction? **Y3 Spring Block 5 – Fractions:** Recap Find a half; Find a quarter; Find a third
	Number	**Y6 Autumn Block 2 – Addition, subtraction, multiplication & division:** **Recap** Add whole numbers with more than 4 digits (column method); **Recap** Subtract whole numbers with more than 4 digits (column method; **Recap** Inverse operations (addition and subtraction); **Recap** Multi-step addition and subtraction problems
FS EL 3	Number	**Y6 Autumn Block 2 – Addition, subtraction, multiplication & division:** **Recap** Multiply 2-digits (area model); **Recap** Multiply 2-digits by 2-digits; Short division; Long division (1)
	Fractions	**Y4 Spring Block 3 – Fractions:** **Recap** Tenths; **Recap** Count in tenths; **Recap** Equivalent fractions (1); **Recap** Equivalent fractions (2)
	Measure	**Y5 Autumn Block 5 – Perimeter & area:** Measure perimeter; Calculate perimeter; Area of rectangle; Area of compound shape
	Decimals	**Y4 Spring Block 4 – Decimals:** Recognise tenths and hundredths; Tenths as decimals Hundredths as decimals; Divide 1-digit by 10; Divide 2-digits by 10; Divide 1 or 2-digits by 100
	Revision/EL3 Assess	**Revision:** EL3 Non calculator & Calculator mock papers and exam practice papers

Spring Term 3

	Early KS4	WRM references
	Decimals	**Y5 Spring Block 3 – Decimals:** Decimals up to 2 d.p.; Decimals as fractions (1); Decimals as fractions (2); Understand thousandths
	Decimals	**Y5 Spring Block 3 – Decimals:** Thousandths as decimals; Rounding decimals; Order & compare decimals
	Sequences	**Y7 Autumn Block 1 – Sequences:** Describe & continue sequences; Predict & check next terms; Sequences in a table & graphically; Linear & non-linear sequences
FS EL3	Revision	CGP FS Maths Entry Level Study & Test Practice Book
	Sequences	**Y7 Autumn Block 1 – Sequences:** Continue linear sequences; Continue non-linear sequences; Explain the term-to-term rule; Find missing terms
	Calculations	**Y6 Autumn Block 2 – Addition, subtraction, multiplication & division:** Primes to

		100, Squares & cubes; Order of operations; Mental calculations & estimation
	Data	**Y5 Autumn Block 3 – Statistics:** Read and interpret tables; Two-way tables; Timetables; **Y6 Summer Block 1 – Statistics:** Mean

Spring Term 4

	Early KS4	WRM references
	Data	**Y8 Autumn Block 5 – Representing data:** Identify different types of data; Read and interpret ungrouped frequency tables; Read and interpret grouped frequency tables; Represent grouped discrete data
	Revision	CGP FS Maths Entry Level Study & Test Practice Book
FS EL3	EL3 Assessment	Continued practice with book; Mock and actual EL3 papers
	Area & Perimeter	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Understand and use letter and labelling conventions including those for geometric figures; Draw and measure line segments including geometric figures; **Pearson Edexcel GCSE Mathematics Foundation Student Book – Chapter 8 perimeter, area and volume 1:** p234 8.2 Area and perimeter of a trapezia; p244 8.5 Volume of prisms
	Basic Algebra	**Y7 Autumn Block 2 – Understanding algebraic notation:** Given a numerical input, find the output of a single function machine; Use inverse operations to find the input given the output; Use diagrams and letters to generalise number operations; Use diagrams and letters with single function machines

Start of Y10/GCSE course

Y10 – SWANS/MAGPIES – WRM Worksheet/Edexcel Foundation Book 1/2/3 references for academic year Easter '23 – Easter '24

Summer Term 5

	Y10	WRM references
	Number 1	**Y7 Spring Block 4 – Operations & equations with directed numbers:** Understand and use representations of directed numbers; Order directed numbers using lines and appropriate symbols; Perform calculations that cross zero; Add directed numbers
	Shape 1	**Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** Identify perpendicular and parallel lines; Recognise types of triangle; Recognise types of quadrilateral; Identify polygons up to a decagon
Basics GCSE	Algebra 1	**Y7 Autumn Block 2 – Understanding algebraic notation:** Substitute into single operation expressions; Find numerical inputs and outputs for a series of two function machines; Use diagrams and letters with a series of two function machines; Substitute values into two-step expressions
	Data 1	**Y8 Autumn Block 5 – Representing data:** Draw and interpret scatter graphs; Understand and describe linear correlation; Draw and use line of best fit; Identify non-linear relationships
	Revision – Basics Test	**Y7 Autumn Block 2 – Understanding algebraic notation:** End of block assessment **Y7 Spring Block 4 – Operations & equations with directed numbers:** End of block assessment **Y7 Summer Block 1 – Constructing, measuring & using geometric notation:** End of block assessment **Y8 Autumn Block 5 – Representing data:** End of block assessment
	Number 2	**Y7 Spring Block 4 – Operations & equations with directed numbers:** Subtract directed numbers; Multiplication of directed numbers; Multiplication and division of directed numbers; Use a calculator for directed number calculations

Summer Term 6

	Y10	WRM references
	Shape 2	**Y8 Summer Block 1 – Angles in parallel lines & polygons:** Investigate angles between parallel lines and the transversal; Identify and calculate with alternate and corresponding angles; Identify and calculate with co-interior, alternate and corresponding angles; Solve complex problems with parallel line angles
	Shape 2	**Y8 Summer Block 1 – Angles in parallel lines & polygons:** Understand and use the sum of exterior angles of any polygon; Calculate and use the sum of the interior angles in any polygon; Calculate missing interior angles in regular polygons; Investigate the properties of special quadrilaterals
	Data 2	**Y8 Summer Block 4 – The data handling cycle:** Choose the most appropriate diagram for given set of data; Represent and interpret grouped quantitative data; Find and interpret the range; Compare distributions using charts
Basics GCSE	Algebra 2	**Y8 Spring Block 1 – Brackets, equations & inequalities:** Form algebraic expressions; Use directed number with algebra; Multiply out a single bracket; Factorise into a single bracket
	Number 3	**Y6 Spring Block 1 – Decimals:** Multiply by 10, 100 and 1,000; Divide by 10, 100 and 1,000; Multiply decimals by integers; Divide decimals by integers

Autumn Term 1

	Y10	WRM references
	Shape 3	**Y7 Summer Block 2 – Develop geometric reasoning:** Understand and use the sum of angles at a point; Understand and use the sum of angles on a straight line; Understand and use the equality of vertically opposite angles; Solve angle problems using properties of triangles and quadrilaterals
	Data 3	**Pearson Edexcel GCSE Mathematics Foundation Book 1 Chapter 7 Averages & range:** p198 Mean and range 7.1; p201 Mode, median & range 7.2; p204 Types of average in a frequency table 7.3; p208 Estimating the mean 7.4
	Number 4	**Y7 Autumn Block 4 – Place value & ordering integers & decimal:;** Write 10, 100, 1000 etc. as powers of 10 (H); Write positive integers in the form Ax10n (H); Investigate negative powers of ten (H); Write decimals in the form Ax10n (H)
	Revision/End of Unit test	My Maths revision; Practice non calculator Foundation paper (benchmarking)
	Number	**Y7 Autumn Block 7 – Fraction, decimal & percentage**

		equivalence: Understand the meaning of percentage using a hundred square; Convert fluently between simple fractions, decimals and percentages; Convert fluently between fractions, decimals and percentages
Basics GCSE	Number	**Y7 Spring Block 3 – Fractions & percentages of amounts:** Find a fraction of a given amount; Find a percentage of a given amount using mental methods; Find a percentage of a given amount using a calculator; Solve problems with fractions greater than 1 and percentages greater than 100% (H)
	Factors and Multiples	**Y7 Summer Block 5 – Prime number & proof**: Find common factors of a set of numbers including the HCF;Find common multiples of a set of numbers including the LCM; Write a number as a product of its prime factors; Use a Venn diagram to calculate the HCF and LCM (H)

Autumn Term 2

	Y10	WRM references
	Factors and Multiples	**Y7 Summer Block 3 – Developing Number sense:** Use factors to simplify calculations **Y7 Summer Block 5 – Prime numbers & proof:** Find and use multiples; Identify factors of numbers and expressions
	Practice papers	Practice papers 2 and 3 – calculator
	Scale diagrams and bearings	**Y9 Autumn Block 4 – Three dimensional shapes:** Accurate nets of cuboids and other 3D shapes; Plans and elevations; **Y10 Spring Block 1 – Angles & bearings:** Draw and interpret scale diagrams ; Understand and represent bearings
Foundation	Basic Algebra	**Y7 Autumn Block 3 – Equality & equivalence:** Solve one-step linear equations involving +/– using inverse operations; Solve one-step linear equations involving x/÷ using inverse operations; Understand the meaning of like and unlike terms; Simplify algebraic expressions by collecting like terms, using the ≡ symbol
	Basic fractions	**Y7 Spring Block 5 – Addition & subtraction of fractions:** Understand representations of fractions; Convert between mixed numbers and fractions; Add and subtract unit fractions with the same denominator; Add and subtract fractions with the same denominator; Add and subtract fractions from integers expressing the answer as a single fraction
	Basic decimals	**Y5 Summer Block 1 – Decimals:** Adding and subtracting decimals with the same number of decimal places problem solving; Adding and subtracting decimals with a different number of decimal places problem solving; Adding and subtracting wholes and decimals; Decimal sequences

Spring Term 3

	Y10	WRM references
	Rounding	**Foundation Book: Rounding to decimal places and significant figures;** p4, p8; **Y5 Spring Block 3 – Decimals & percentages:** Rounding decimals **Y6 Autumn Block 1 – Place Value –** Round any number **Y7 Autumn Block 4 – Place value & ordering integers & decimals:** Round integers to the nearest power of ten; Round a number to 1 significant figure
	Practice papers	Edexcel papers 1,2,3 work through with support in own time
	Collecting & representing data	**Y8 Autumn Block 5 – Representing data:** Identify different types of data; Read and interpret ungrouped frequency tables; Read and interpret grouped frequency tables; Represent grouped discrete data
Foundation	Standard form	**Index notation:** p16 **Foundation Maths Book 1** **Y8 Spring Block 3 – Indices:** Adding and subtracting expressions with indices; Simplifying algebraic expressions by multiplying indices; Simplifying algebraic expressions by dividing indices
	Standard form	**Y8 Spring Block 3 – Indices:** Using the addition law for indices; Using the addition and subtraction law for indices; Exploring powers of powers (H) **Y8 Spring Block 5 – Standard Form:** Use a calculator to work with numbers in standard form
	Percentages	**Y6 Spring Block 2 – Percentages:** Fractions to percentages; Equivalent FDP; Order FDP; Percentage of an amount (1)
	Measures	**Y6 Spring Block 4 – Converting Units:** Metric measures; Convert metric measures; Calculate with metric measures; Miles and kilometres

Spring Term 4

	Y10	WRM references
	Statistical measures	**Y8 Autumn Block 5 – Representing data:** Represent continuous data grouped into equal classes; Construct and interpret two-way tables; **Y8 Summer Block 5 – Measures of location:** Choose the most appropriate average; Compare distributions using averages and the range
	Revision	CGP Books – Edexcel Maths Foundation – targeted revision
Foundation	Test	Edexcel papers 1,2,3
	Indices	**Y8 Spring Block 5 – Standard Index Form:** Compare and order numbers in standard form; Add and subtract numbers in standard

		form; Multiply and divide numbers in standard form; Understand and use negative indices (H); Understand and use fractional indices (H)
	Constructions & Loci	**Y9 Autumn Block 5 – Constructions & congruency:** Locus of distance from a point; Locus of distance from a straight line; Locus equidistant from two points; Construct a perpendicular bisector

Y11 – RAVENS– WRM Worksheet/Edexcel Foundation Book 1/2/3 references for academic year Easter '23 – Easter '24

Summer Term 5

	Y11	WRM references
	Congruence & similarity	**Y9 Autumn Block 5 – Constructions & congruency:** Construct an angle bisector; Identify congruent figures; Explore congruent triangles; Identify congruent triangles
	Intro to trigonometry	**Y10 Autumn Block 2 – Trigonometry:** Explore ratio in similar right-angled triangles; Work fluently with the hypotenuse, opposite and adjacent sides; Use the tangent ratio to find missing side lengths; Use the sine and cosine ratio to find missing side lengths
Foundation	Perimeter & area	**Y9 Autumn Block 4 – Three dimensional shapes:** Recognise prisms (including language of edges and vertices); Find area of 2D shapes ; Surface area of cubes and cuboids; Surface area of triangular prisms
	Circumference & area	**Y8 Autumn Block 1 – Ratio and scale:** Understand pi as a ratio **Y8 Summer Block 2 – Area of trapezia and circles:** Investigate the area of a circle; Calculate the area of a circle and parts of a circle without a calculator; Calculate the area of a circle and parts of a circle with a calculator
	Revision & test	CGP Book targeted revision. Practice papers 1,2,3
	Properties of polygons	**Y8 Summer Block 1 – Angles in parallel lines & polygons:** Constructions triangles and special quadrilaterals; Investigate the properties of special quadrilaterals; Identify and calculate with sides and angles in special quadrilaterals; Understand and use the properties of diagonals of quadrilaterals

Summer Term 6

	Y11	WRM references
	Straight line graphs	**Y9 Autumn Block 1 – Straight Line graphs:** Lines parallel to the axis, y=x and y=-x ; Compare gradients; Compare

		intercepts; Understand and use y=mx+c
	Simultaneous equations	**Y10 Autumn Block 4 – Simultaneous equations:** Solve a pair of linear simultaneous equations using graphs; Solve a pair of linear simultaneous equations by subtracting equations; Solve a pair of linear simultaneous equations by adding equations; Solve a pair of linear simultaneous equations by adjusting one equation
	Probability	**Y9 Summer Block 4 – Probability:** Single event probability (R) Relative frequency – including convergence; Expected outcomes; Independent events
Foundation	Probability	**Y9 Summer Block 4 – Probability:** Use tree diagrams (H); Use tree diagrams to solve without replacement problems (H); Use diagrams to work out probabilities **Y10 Spring Block 6 – Probability:** Use the property that probabilities sum to 1
	Volume	**Y9 Autumn Block 4 – Three dimensional shapes:** Surface area of a cylinder; Volume of cubes and cuboids; Volume of other 3D shapes – prisms and cylinders; Explore volumes of cones, pyramids and spheres (H)

Autumn Term 1

	Y11	WRM references
	Percentages	**Y6 Spring Block 2 – Percentages:** Percentage of an amount (2) Percentages – missing values **Y8 Spring Block 4 – Fractions and percentages:** Calculate key fractions, decimals and percentages of an amount without a calculator; Calculate fractions, decimals and percentages of an amount using calculator methods
	Direct & Inverse proportion	**Y9 Summer Block 2 – Solving ratio & proportion problems:** Solve problems with direct proportion; Direct proportion and conversion graphs; Solve problems with inverse proportion; Solve ratio problems given the whole or a part; Solve best buy problems
	Algebra & rearranging	**Y8 Spring Block 1 – Brackets, equations & inequalities:** Form algebraic expressions; Use directed number with algebra; Multiply out a single bracket; Expand multiple single brackets and simplify; Factorise into a single bracket
	Algebra continued	**Y8 Spring Block 1 – Brackets, equations & inequalities:** Solve equations, including with brackets; Form and solve equations with brackets; Understand and solve simple inequalities; Form and solve inequalities

	Revision/Test	CGP Books – Edexcel Maths Foundation – targeted revision; Edexcel papers 1,2,3
	Algebra continued	**Y9 Autumn Block 2 – Forming & solving equations:** Equations and inequalities in other mathematical contexts; Formulae and equations; Rearrange formulae (one-step); Rearrange formulae (two-step)
Foundation	Rates	**Y9 Summer Block 3 – Rates:** Solve speed, distance and time problems without a calculator; Solve speed, distance and time problems with a calculator; Use distance-time graphs; Solve problems with density, mass and volume
	Pythagoras 'Theorem	**Y9 Spring Block 6 – Pythagoras:** Identify the hypotenuse of a right-angled triangle; Identify the hypotenuse of a right-angled triangle; Calculate the hypotenuse of a right-angled triangle; Calculate missing sides in right-angled triangles

Autumn Term 2

	Y11	WRM references
	Trigonometry	**Y10 Autumn Block 2 – Trigonometry:** Use the sine, cosine and tangent to find missing side lengths; Use the sine, cosine and tangent to find missing angles; Select the appropriate method to solve right-angled triangle problems; Work with key angles in right-angled triangles
	Solving equations	**Y10 Autumn Block 3 – Representing solutions to equations & inequalities:** Form and solve one-step and two-step equations ; Form and solve one-step and two-step inequalities; Show solutions to inequalities on a number line; Interpret representation on number lines as inequalities
	Mock exam	Edexcel Papers 1 Non calculator; Papers 2 & 3 Calculator
Foundation	Solving quadratics	**Y11 Autumn Block 2 – Non Linear graphs:** Plot and read from quadratic graphs; Identify and interpret roots and intercepts of quadratics; **Y10 Autumn Block 3 – Representing solutions to equations & inequalities:** Solve quadratic equations by factorisation (H); Solve quadratic equations by factorisation (H)
	Ratio & proportion	**Y10 Spring Block 4 – Ratio & fraction:** Use ratios and fractions to make comparisons; Link ratios and graphs; Use and interpret ratios of the form 1 : n and n : 1; Combine a set of ratio
	Collecting & representing data	**Y10 Summer Block 1 – Collecting, representing & interpreting data:** Construct and interpret frequency tables and frequency polygons; Construct and interpret line and bar charts (including composite bar charts); Construct and

		interpret time series graphs; Construct and interpret stem-and-leaf diagrams

Spring Term 3

	Y11	WRM references
	Transformations	**Y11 Spring Block 4 – Transforming & Constructing:** Perform and describe line symmetry and reflection; Perform and describe rotation and rotational symmetry; Perform and describe translations of shapes; Perform and describe enlargements of shapes (R)
	Transformations continued	**Y11 Spring Block 4 – Transforming & Constructing:** Identify transformations of shapes; Perform and describe a series of transformations of shapes; Perform standard constructions using ruler and protractor or ruler and compasses; Solve loci problems
	Listing & describing	**Y11 Spring Block 5 – Listing & describing:** Work with organised lists; Sample spaces and probability; Use data to compare distributions ; Interpreting scatter graphs (R)
Foundation	Geometric reasoning	**Y11 Spring Block 2 – Geometric reasoning:** Angles at a point; Angles in parallel lines and shapes; Exterior and interior angles of polygons
	Gradients & lines	**Y11 Autumn Block 1 – Gradients & lines:** Equations of lines parallel to the axis; Plot straight line graphs; Interpret y=mx+c; Find the equation of a straight line from a graph (1) (R)
	Gradients & lines continued	**Y11 Autumn Block 1 – Gradients & lines:** Find the equation of a straight line from a graph (2); Equation of a straight-line graph given one point and gradient; Equation of a straight-line graph given two points; Determine whether a point is on a line
	Indices & roots revision	**Y10 Summer Block 4 – Indices & roots:** Square and cube numbers; Powers of ten and standard form ; The addition and subtraction rules for indices ; Calculate with numbers in standard form (R)

Spring Term 4

	Y11	WRM references
	Types of number & sequence	**Y10 Summer Block 3 –** Understand the difference between factors and multiples; Understand primes and express a number as a product of its prime factors; Find the HCF and LCM of a set of numbers; Describe and continue arithmetic and geometric sequences
	Non calculator methods	**Y10 Summer Block 2 – Non calculator methods –**

		Mental/written methods of integer/decimal addition and subtraction; Mental/written methods of integer/decimal multiplication and division; The four rules of fraction arithmetic ; Rounding to decimal places and significant figures (R)
Foundation	Non calculator methods continued	**Y10 Summer Block 2 – Non calculator methods:** Estimating answers to calculations; Understand and use limits of accuracy Solve financial maths problems; Break down and solve multi-step problems
	Revision and past papers	CGP Books – Edexcel Maths Foundation – targeted revision; Edexcel papers 1,2,3
	Percentages & interest	**Y10 Spring Block 5 – Percentages & interest:** Calculate simple and compound interest; Repeated percentage change; Find the original value after a percentage change; Solve problems involving growth and decay

Revision after this.

Y11 – FLAMINGOS – WRM Worksheet/Edexcel Foundation Book 1/2/3 references for academic year Easter '23 – Summer '23

Summer Term 5

- Self directed revision using CGP Foundation Revision book and WJEC Maths Foundation Revision book.
- Past papers.

Summer Term 6

As above