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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 7 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Algebraic thinking** | **Place value & proportion** | **Applications of number** | **Directed number & fractional thinking** | **Lines and angles** | **Reasoning with number** |
| **Key Knowledge & Concepts** | **Sequences**Describe sequences Compare numerical and graphical formsUse function machines with barmodels**Understand and use algebraic notation**Use algebraic notationUnderstand inverse operationsSubstitution and generating sequencesRepresent sequences graphically**Equality and equivalence**Understand equalityUse fact familiesForm/solve 1-step equationsEquivalence of algebraic expressions Collect like terms | **Place value and ordering**Integer place valueDecimal place valueIntervals and number linesCompare and order numbersRange and median from a listRounding to powers of 10Rounding to 1 significant figure**Fraction, decimal and percentage equivalence**Represent tenths and hundredths on number linesConvert between fractions, decimals and percentagesEquivalent fractionsInterpret pie charts Index form Fractions above 1 | **Addition & subtraction**Mental methodsFormal written methodsSolve problems in Context of perimeter, money, frequency trees, tables, bar charts, line charts **Multiplication & division** Multiply by 10, 100, 1000, 0.1, 0.01Convert metric unitsHCF & LCMArea of shapesFinding the meanOrder of operations**Fractions and percentages of amounts**Simple fractions and % of amounts | **Directed Number**Order directed numbers4 operations with directed numberUsing a calculatorSolving 2-step equationsOrder of operations**Add & subtract fractions**Tenths & hundredths on a number lineConvert mixed numbers & improper fractionsAdd & subtract fractionsAdd and subtract fractions & decimals | **Construction and measuring**Line and angle notationDraw and measure lines and anglesClassify anglesParallel and perpendicular linesTypes of triangles, quadrilaterals and other polygonsConstruct triangles given SSS,SAS,ASADraw and interpret pie charts**Geometric reasoning**Calculate and use angles at a point, angles on a straight line and vertically opposite anglesCalculate missing angles in triangles and quadrilaterals | **Developing number sense**Mental arithmeticUse known facts to derive other factsEvaluate expressionsUse estimation**Sets and probability**Set notation Venn Diagrams and complement of a setLanguage probabilityProbability of a single event and sum of probabilities of an event.**Prime numbers and proof**Prime, square and triangle numbersPowers and rootsConjectures and counter examplesPrime factors with HCF and LCM |
| **Clarity around Sequencing** | **Main links across the curriculum** | Material in this unit is revisited in forthcoming unitsEfficient use of calculators and informal estimation | Solve equations with fractionsSequences with fractionsPie charts, median, range | Perimeter: equations & simplifyingTables: distance charts & timetablesRevisit roundingOrder of operations: negatives | Inequalities: number linesRevisit sequencesequations & substitution  | Simplifying expressions, perimeter, equations Pie charts, mental methods for add and subtract | Fractions, decimals, %Factors and multiples |
| **Cross – curricular / Authentic Links** | Geog compassTech unitsScience graphs | Geog dataScience energy | Science formulae and equationsTech nets and area |  | PE units of measurement | Science standard form and data |
| **Vocabulary / Literacy** | **Literacy** | **Reading** |  |  |  |  |  |  |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity |
| **On going** | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 |
| **End** | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle |
| **Assessment** | **Summative****Assessment** | Topic test | Topic test | Topic test | Topic test | Topic test | Topic test |
| **Possible misconceptions** | Sequences: thinking the 10th term is double the 5th termAlgebra: thinking 2 more than x is 2xEquations: solving x/4=8 to get x=2 | Place value: thinking that 5.203 is bigger than 5.23FDP: thinking that 1/3 = 0.3 or 25% = 1/25 | Subtraction: doing 1-8 and getting 7Multiply: 0.32x10 = 0.320Using slant height for area of a triangle | Thinking -8 is greater than -2Adding Fractions: 1/7 + 3/7 = 4/14 | Using the wrong side of the protractorUsing rule for angles on a straight line for non-adjacent angles | Calculating when asked to estimateWriting probability as a ratio |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | **Problem solving** | **Problem solving** | **Problem solving**Financial maths | **Problem solving** | **Problem solving** | **Problem solving****Probability** |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 8 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Proportional reasoning** | **Representations** | **Algebraic techniques** | **Developing number** | **Developing geometry** | **Reasoning with data** |
| **Key Knowledge & Concepts** | **Ratio and scale**Understanding ratio and its link to multiplication.Use Ratio notation.Reduce ratios to simplest form.Solve ratio problems.Calculate the circumference of a circle.**Multiplicative change**Use scale factors, linking to ratio, to solve simple direct proportion problems.Convert between currencies, including using graphs.Draw and interpret scale diagrams and maps.**Multiplying and dividing fractions**Multiply and divide a fraction by an integerMultiply and divide a fraction by a fractionUnderstand and use reciprocal | **Working in the Cartesian plane**Plot and interpret straight line graphs.Understand and use the equations of a straight line, including lines parallel to the axes.Make links between direct proportion and straight lines of the form y=kx.Model situations by translating them into expressions, formulae and graphs.**Representing data**Draw and interpret scatter graphs. Understand correlation. Draw and use line of fit. Understand grouped, discrete and continuous data. Design and use one and two way tables**Probability**List outcomes using sample space diagrams for one and two eventsFind probabilities using tables and Venn diagrams | **Brackets, equations and inequalities**Expand and factorise into single bracketsForm and use expressions, formulae and identitiesForm and solve equations and inequalities with and without bracketsDistinguish between equations, expressions, formulae and identities**Sequences**Generate sequences using more complex rules e.g. with brackets and squared terms, both in words and algebraically**Indices**Form expressions using indicesUnderstand and use the addition and subtraction rules | **Fractions and percentages**Develop understanding of fractions, decimals and percentagesEvaluate percentage increases and decreasesUse multiplers to solve percentage problemsExpress one number as a percentage of another**Standard index form**Convert between numbers in ordinary and standard formCompare numbers given in standard formCalculate with numbers in standard form, with and without a calculator**Number sense**Develop mental strategiesConvert between metric measures and unitsEstimation, including rounding to a given number of decimal placesUse the order of operations | **Angles in parallel lines and polygons**Review Y7 angles rulesUnderstand and use parallel lines and anglesRevisit geometric notationWork out angles in special quadrilateralsFind and use the sum of interior and exterior angles of a polygonProve simple geometric facts**Area of trapezia and circles**Review area of shapes covered in Y7Calculate the area of a trapeziumCalculate the area of a circle and parts of a circleUse significant figuresCalculate the area of compound shapes**Line symmetry and reflection**Recognise line symmetry in polygons and other shapesReflect shapes in horizontal, vertical and diagonal lines | **The data handling cycle**Understand and use primary and secondary sources of dataCollect data including using questionnairesInterpret and construct statistical diagrams including multiple bar chartsConstruct and interpret pie chartsCompare distributions using chartsIdentify misleading graphs**Measures of location and dispersion**Revisit the median and mean including finding the total given the meanFind the mean of grouped dataWork out the mode and modal classChoosing the appropriate averageComparing distributions using measures |
| **Clarity around Sequencing** | **Main links across the curriculum** | Revisit areaRevisit equationsRevisit converting improper fractions and mixed numbersLinks to fractions of an amount | Revisit calculation with directed numberLink to solving one and two step linear equationsRevisiting venn diagrams and set notation | Revisit use of directed numberSolve equations in context of other maths topics | Revisit FDP equivalenceRevisit formal methods of calculation for integers and fractionsCompare and use ratios in context of FDP | Revisit forming and solving equationsRevisit properties of shapesRevisit equations of straight lines | Revisit finding the rangeUse algebraic substitution to form lists for averages and the range |
| **Cross – curricular / Authentic Links** | Tech isometric drawing, scale and measurement | Science pressurePE fitness testing | Science units e.g. speed of sound |  | PE measures (javelin) | Science difference in temperatures |
| **Vocabulary / Literacy** | **Literacy** | **Reading** |  |  |  |  |  |  |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity |
| **On going** | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 |
| **End** | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle |
| **Assessment** | **Summative****Assessment** | Topic test | Topic test | Topic test | Topic test | Topic test | Topic test |
| **Possible misconceptions** | 6 x 1/7 = 6/42 | Plotting coordinates the wrong way roundDrawing an axis with unequal scales | Only multiplying the first term when expanding a bracket | Multiplying by 0.2 to work out 2% | Reflecting in a diagonal line as if it was a vertical line | Not dividing by the total frequency (mean of grouped data) |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | **Problem solving**Financial maths | **Problem solving**Probability | **Problem solving** | **Problem solving** | **Problem solving** | **Problem solving**Data handling |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 9 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Reasoning with algebra** | **Constructing in 2 and 3 dimensions** | **Reasoning with number** | **Reasoning with geometry** | **Reasoning with proportion** | **Representations** |
| **Key Knowledge & Concepts** | **Straight line graphs**Interpret straight line graphsFind and use the equation of a straight lineReduce equations to the form y=mx+cCompare to linear sequences and finding the rule for the nth term**Forming and solving equations and inequalities**Revisit and extend to equations and inequalities with unknown on both sides using all previous contexts: angles, probability, area etc.Change the subject of a formula**Testing conjectures** Test conjectures in a wide range of contexts | **Three dimensional shapes**Understand the language of faces, edges and verticesKnow the names of common prisms and non-prismsIdentify 2D shapes within 3D shapesWork out the volume and surface area of cuboids and cylindersWork out the volume of any prismWork out missing lengths given area/volume**Constructions and congruency**Construct 3D shapes from nets and construct nets of 3D shapesConstruct and use scale drawingsConstruct perpendiculars and bisectorsUnderstand congruencyExploring congruency via construction | **Numbers**Revisit types of number – extend to include rational and real numbersRevisit fraction arithmeticExtend knowledge of HCF and LCMRevisit standard form**Using percentages**Revisit percentage increase and decreaseUse percentages over 100%Find percentage changesUse multipliers in a variety of contextsSolve reverse percentage problems**Maths and money**Explore financial maths including bills and bank statements, interest, unit pricing (best buys) | **Deduction**Revisit angles rules including within special quadrilaterals. Find angles using algebraic methodsUse chains of reasoning to evaluate angles**Rotation and translation**Identify the order of rotational symmetry of a shape. Find the result of rotating a shape. Translate points and shapes given by a vectorUnderstand variance and invariance in the context of transformations**Pythagoras’ Theorem**Identify the hypotenuse of a right-angled triangleDetermine whether a triangle is right-angled. Calculate missing sides in right-angled triangles | **Enlargement and similarity**Enlarge shapes by a positive scale factor including from a given pointCalculate the lengths of missing sides in similar shapes**Solving ratio and proportion problems**Direct proportion problems and graphsConversion graphsSolve ratio problems given the whole or a partSimple inverse proportionUnit pricing problems (best buy)**Rates**Work with speed, distance timeSolve problems involving densityWork with compound units | **Probability**Relative frequencyExpected number of outcomesIndependent events**Algebraic representations**Drawing and reading from quadraticsInterpreting other graphs e.g. reciprocalRepresenting inequalities |
| **Clarity around Sequencing** | **Main links across the curriculum** | Link equations of graphs to solving equationsRevisit key topics through equationsReview use of bracketsReview geometric properties and rules  | Revisit estimation,Revisit rounding to the nearest integer, decimal places and significant figuresRevisit unit conversions including area and volume units | Add and subtract fractionsWorking out fractions of amountsFDP equivalenceRatio | Revisit fractions and directed numbers in the context of rotation. Compare and contrast rotational symmetry with line symmetryIdentify 2D and 3D shapes. Link constructions and geometric reasoning |  |  |
| **Cross – curricular / Authentic Links** | Art geometric shapeGeog % change, maps scaleTech measurement | Art scale drawingGeog graphs and statisicsTech enlargement, congruence | ICT sequencesScience density | History statisticsScience SDT and SDT graphs | ICT financeFood ratio, time | ICT financeFood pie charts |
| **Vocabulary / Literacy** | **Literacy** | **Reading** |  |  |  |  |  |  |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity |
| **On going** | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 |
| **End** | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle |
| **Assessment** | **Summative****Assessment** | Topic test | Topic test | Topic test | Topic test | Topic test | Topic test |
| **Possible misconceptions** | Getting inequality signs the wrong way round | Thinking that volume is multiply all the numbers together | Not recognising reverse % questions | Always adding for Pythagoras’ Theorem | Not enlarging all sides on a shape | Thinking relative frequency is the same as frequency |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | **Problem solving** | **Problem solving** | **Problem solving**Financial maths | **Problem solving** | **Problem solving** | **Problem solving**Probability |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 10 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Similarity** | **Developing Algebra** | **Geometry** | **Proportions and proportional change** | **Delving into data** | **Using Number** |
| **Key Knowledge & Concepts** | **Congruence, similarity and enlargement**Understand the difference between congruence and similarity. Enlarge a shape about a point.Understand and use similarityFind sides in similar shapes including pairs of similar trianglesUnderstand and use the conditions for a pair of congruent triangles.*Higher content:**Area and volume of similar shapes**Formal proof for congruency**Enlarge a shape by a negative scale factor***Trigonometry** Understand trigonometric ratiosWork out missing sides and angles in right-angled trianglesKnow and use exact trigonometric values.*Higher content:**Use trigonometry in 3D shapes**Sine and cosine rules. Area of a triangle using 1/2absinC* | **Representing solutions of equations and inequalities**Form and solve equations and inequalities in a variety of contexts including unknown on both sidesRepresent solutions to inequalities on a number line.Represent equations graphically**.***Higher content:**Use set notation for solutions**Solve inequalities in 2 variables, identifying regions**Solve quadratic equations and inequalities (by factorisation only)***Simultaneous equations** Understand that some equations have multiple solutions.Form and solve simultaneous equations algebraically and graphically*Higher content:**Solve simultaneous equations with one linear and one quadratic*   | **Angles and bearings**Review KS3 angles rulesUnderstand and use bearings**Working with circles**Review area and circumferenceName parts of a circle and perform related calculationsFind areas and volumes related to circles e.g. cylinder, cone, sphere etc*Higher content:**Derive, use and prove the first 4 circle theorems**Equation of a circle.***Vectors**Vector notationVector arithmetic – addition, subtraction and multiplication by a scalarVectors and translations*Higher content:**Geometric proofs with vectors* | **Ratios and fractions**Use ratios, including with mixed unitsFractions in ratiosFractions from ratios. Combining ratios. Best buysCurrency convert*Higher content:**Revise area and volume ratios***Percentages and interest**Convert FDPFind % / % changeFind one number as a % of anotherSimple and compound interestExponential change e.g. depreciationFind original values*Higher content:**Use iterative methods***Probability**Review of single event probabilityMutually exclusive and independent eventsTree diagramsFind probabilities from frequency trees, tables and venn diagrams*Higher content:**Conditional probability* | **Collecting, representing and interpreting data –** Understand sampling.Construct and interpret tables and line graphs for time series data.Understand and represent grouped data.Understand and identify correlation.Use a line of best fit and understand extrapolation.Construct/interpret frequency polygons.Evaluate measures of location and dispersion.Use statistical diagrams and measures to compare distributions*Higher content:**Construct and interpret cumulative frequency diagrams, box plots and histograms**Understand quartiles**Use and interpret the inter-quartile range* | **Non-calculator methods** Four operations with integers (positive and negative), fractions and decimals with and without contextWork with exact answers e.g. area and volume.Evaluate calculations involving percentages.Upper and lower bounds*Higher content:**Calculations involving upper and lower bounds*.**Types of number and sequences** Use factors, multiples, primes and prime factorisation.Recognise arithmetic and geometric sequences.Recognise and use other sequences.*Higher content:**Nth term of a quadratic sequence.**Work with rational, irrational numbers including recurring decimals.***Indices and roots** Work out powers and roots.Use rules of indices.Calculate with numbers in standard form.*Higher content:**Calculate with surds.**Use fractional indices.* |
| **Clarity around Sequencing** | **Main links across the curriculum** | Angle rules including angles in parallel linesEquationsPythagoras theorem | Context for equations to include probability, area, angles, ratio problems. | Revisit TrigonometryRevisit areas and volumes or other and compound shapesEstimation, Rounding, Significant Figures | Revisit formal methods of calculationRevisit fraction arithmetic | Using equations e.g.solving problems about the mean.Non-calculator methods. | **Fractions, decimals, %****Factors and multiples** |
| **Cross – curricular / Authentic Links** |  | Geog data handlingChemistry % yieldGraphics nets |  |  | Geog data handlingPE collecting data | Physics vectors, graphs, acceleration |
| **Vocabulary / Literacy** | **Literacy** | **Reading** |  |  |  |  |  |  |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity |
| **On going** | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 |
| **End** | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle |
| **Assessment** | **Summative****Assessment** | Topic test | Topic test | Topic test | Topic test | Topic test | Topic test |
| **Possible misconceptions** | Similarity – adding instead of multiplying | Negative numbers errors on sim eq | Not using North line for bearings | Understanding the difference between simple/compound | Interpret scatter without line of best fit | Incorrect use of index laws |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | **Problem solving**Trigonometry | **Problem solving** | **Problem solving**Area and volumeBearings | **Problem solving****Probability****Financial maths** | **Problem solving**Financial maths | **Problem solving** |

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| **Bridgewater High Key Stage 3 Curriculum Map** |
| Subject – Year 11 |



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| **Intent:6 key principles** | **Implementation** | **Autumn Term 1** | **Autumn Term 2** | **Spring Term 1** | **Spring Term 2** | **Summer Term 1** | **Summer Term 2** |
| **Clarity around knowledge** | **Theme/Topic** | **Graphs** | **Algebra** | **Reasoning** | **Revision and Communication** | **Revision** |  |
| **Key Knowledge & Concepts** | **Gradients & lines**Equations of straight lines**Non-linear graphs**Quadratic curvesRootsCubic & reciprocal graphs*Higher content:**Exponential graphs***Using graphs**Reflect shapes in a lineSpeed, distance, time graphsReal life graphs*Higher content:**Equations of perpendicular lines**Equation of a tangent to a curve**Estimate the area under a curve* | **Expanding & factorising**Single brackets Binomials – expand only Quadratics – factoriseQuadratic equationsSimplify algebraic expressions including algebraic fractions*Higher content:**Solve quadratic equations by completing the square and using the quadratic formula***Changing the subject**Solve linear equationsChange subject of a formulaVolume of a pyramid*Higher content:**Changing the subject of a formula where the subject occurs more than once***Functions**Finding inputs & outputsEquivalent algebraic expressionsUse of kinematics formulae*Higher content:**Solve equations by iteration**Work with composite and inverse functions* | **Multiplicative Reasoning:**Review scale and enlargementDirect and inverse proportionPressure and DensityAdditive and multiplicative reasoning**Geometric Reasoning:**Angle facts, language of reasoning and chains of reasoningPythagoras’ theorem and trigonometric ratios*Higher content:**Construct formal geometric proofs including the remaining circle theorems***Algebraic Reasoning:**Working with complex indicesSimplification of complex expressions and finding the nth term ruleJustify whether a number is / is not in a sequence*Higher content:**Construct formal algebraic proofs* | **Transforming and constructing:**Transformation of shapes and symmetryConstructionsLoci*Higher content:**Trig graphs**Translations and reflections of graphs***Listing and describing:**Systematic listingSample spaces and probabilityVenn diagramsPlans and ElevationsComparing distributions*Higher content:**Product rule for counting***Show that ...**Illustrate equivalence, numerically and algebraicallyJustify answersUse angle rulesUse the conditions for congruent triangles *Higher content:**Formal proof with congruent triangles* | **-Number work inc multi-step problem solving****-Forming & solving equations & inequalities****-Working with formulae****-Probability** |  |
| **Clarity around Sequencing** | **Main links across the curriculum** | **Solving equations****Proportional reasoning** | **Negative numbers****Graphs** | **Revise non-calculator methods. Revisit other topics** | **Interleaves with all topics.** |  |  |
| **Cross – curricular / Authentic Links** | **Art shape / ratio****Science stats and equations****DT data****History data trends** | **Science equations, formulae, rates of change, graphs****DT plan / elevation, nets** | **DT % profir/loss, ratio and scale****PE finance****Biology probability** | **CS flowcharts and iteration****PE data ratio and stats** |  |  |
| **Vocabulary / Literacy** | **Literacy** | **Reading** |  |  |  |  |  |  |
| **Ext. Writing** |  |  |  |  |  |  |
| **Key****Vocabulary** | See knowledge organiser | See knowledge organiser | See knowledge organiser | See knowledge organiser |  |  |
| **Memory & Cognition** | **Retrieval Practice: Focus a*nd Activity*** | **Start** | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity | Making linksRoad map activity |  |  |
| **On going** | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 | Multi-topic focusFlashback 4 |  |  |
| **End** | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle | Revision of topicMathswatchvle |  |  |
| **Assessment** | **Summative****Assessment** | Topic test | Topic test | Topic test | Topic test |  |  |
| **Possible misconceptions** | Coordinates for negative x values | Incorrect order for changing the subject | Knowing when to use Pythag / trig | Drawing the wrong construction (loci) |  |  |
| **Aspiring, inspiring and Real** | **Links to real world (Inc. SMSC / PD curricula)** | **Problem solving****Real life graphs** | **Problem solving** | **Problem solving****Scale** | **Problem solving****Probability****Plans/elevation** | **Problem solving** | **Problem solving** |