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| **Mathematics content mapping** | | | | |
| **6** | **7** | **8** | **9** | **10** |
| **Decimals**  Concept and appropriate use, Problem solving | **Angles and Polygons:** Transformations  Tessellation-influences in culture  How number systems and Mathematics migrated | **Problem Solving**  Process of mathematics | **Transformations**  Transformation geometry using matrices | **Number skills**  Rounding and estimating Significant figures, decimal places Error bounds in calculations |
| **Number Line**  Introduction .to +/- number line and plot co-ordinates | **Algebra**  Introduction  Number patterns and generating algebraic form | **Statistics**  Survey and interpret: Language A  Teenage Problems | **Estimation**- **number review** Numbers to Teach Younger Children  Design and use of teaching materials for 4 operations | **Probability**  Tree diagrams, sample space diagrams, Conditional probability |
| **Algebra**  Inverse operations, solving equation and trial and improvement | **Sets/Venn diagrams**  Approaches to learning | **Interior Design**  Design a room for a client  Scale drawing, ratio, measurement, | **Dealing with Data** Questionnaires, presentation of data | **Lines and curves.**  Solving equations; linear, simultaneous linear and quadratic. Graphical and algebraic methods |
| **Fractions**  Recognize numerator, denominator and simplify fraction | **Packaging Project**  Designing a Box  Shape, nets, spheres | **Pythagoras’ Theorem**  Historical analysis of culture | **Algebra**  Sequences, equations, trial and improvement | **Congruence, similarity Constructions and loci** |
| **Problem Solving**  Length/Scale  Statistics-Five step plan. Investigation, setting out and answer styles  Intro to units of length, scale drawing, finding lengths, imperial and metric conversion | **Numbers**  Use and concepts of powers, roots, negative numbers | **Sets and Venn Diagrams**  Set theory and visual representation | **Pythagoras’ Theorem/ Trigonometry ratios**  Areas and lengths of triangles, Angle in the semi circle  Finding angles and sides in a right angled triangle, sin, cos and tan | **Graphs of non-linear functions;**  Quadratics, cubics, reciprocal, exponential, trigonometric, logarithmic |
| **History of Numbers**  Origin of number systems Study several systems and design their own | **Fractions and Percentages**  Conversion and everyday usage | **Algebra**  Like terms, BODMAS, expanding brackets | **Line Graphs**  Applications of Graphs  Equation of a line, y=mx+c,  Meanings of m and c  Travel Graphs,  Sketch Graphs | **3-D mensuration,**  Vectors Volume, mass, density, nets and surface areas, dimensions, fractals and non-Euclidean geometries |
| **Sets and Venn Diagrams**  An introduction to set theory. | **Graphs**  Drawing conversion, formula, travel, linear graphs | **Probability**  Notation of events, calculation of simple probability | **Powers/Indices**  Indices and standard form | **Statistics**  Cumulative frequency, box and whisker plots, samples, Normal distribution, standard deviation, linear regression |
| **Maths Project**  **Shape and Angles**  Polygons and symmetry,  3D shapes, nets and simple constructions  Of angles  Defining polygons, simple constructions, tessellation and congruence. Finding lines of symmetry & drawing reflection. | **Statistics**  Diagrams, charts, averages, group data frequency polygons | **Graphs and equations**  Using line graphs to calculate and extrapolate | **Probability**  Probability scale, calculating probabilities estimating probabilities (relative frequency) | **Networks,**  Topology, directed networks |
| **Area and Perimeter**  Irregular shapes, Area and perimeter of triangle, rectangle .Area of compound shapes | **Probability**  Chance (build a game) | **Trigonometry**  Using trigonometry in real problem solving situations | **Circles**  Circumference, perimeter, circle theorems | **Number systems,**  Calculators Review of number Finite & infinite Real and complex  Introduce graphing calculator |
| **Probability**  Probability scales. How the theory works |  | **Transformations**  Geometry of transformations using a variety of notations | **Averages**  Mean, Median, Mode |  |
|  |  |  | **Ratio/Proportion**  Comparing sizes/costs, dividing in a given ratio, direct proportion |  |
|  |  |  | **Algebra ii**  Factorising quadratics |  |