Overview of Y9 Course

1 Indices and Standard Form

1.1   Indices
1.2   Calculations and estimates
1.3   More indices
1.4   Standard form

2   Expressions and Formulae

2.1   Solving equations
2.2   Substituting into expressions
2.3   Writing and using formulae
2.4   Using and rearranging formulae
2.5   Index Laws and brackets
2.6   Expanding double brackets

3. Dealing with data

3.1 Planning a survey
3.2 Collecting data
3.3 Calculating averages
3.4 Displaying and analysing data
3.5 Presenting and comparing data

4. Multiplicative Reasoning

4.1 Enlargement
4.2 Negative and fractional scale factors
4.3 Percentage change
4.4 Compound Measures
4.5 Direct and Inverse Proportion

5. Constructions

5.1 Using scales
5.2 Basic constructions
5.3 Constructing triangles
5.4 Using accurate scale diagrams

6. Sequences, inequalities, equations and proportion

6.1 nth term of arithmetic sequences
6.2 Non-linear sequences
6.3 Inequalities
6.4 Solving equations
6.5 Proportion

7. Circles, Pythagoras and prisms

7.1 Circumference of a circle
7.2 Area of a circle
7.3 Pythagoras Theorem
7.4 Prisms and Cylinders
7.5 Errors and Bounds

8 Graphs

8.1 Using $y=mx+c$
8.2 More straight line graphs
8.3 Simultaneous equations
8.4 Graphs of quadratic functions
8.5 More non-linear graphs

9. Probability

9.1 Mutually exclusive events
9.2 Experimental and theoretical probability
9.3 Sample space diagrams
9.4 Two-way tables
9.5 Venn Diagrams

10. Comparing Shapes

10.1 Congruent and Similar shapes
10.2 Ratios in triangles
10.3 Tangent Ratio
10.4 Sine Ratio
10.5 Cosine ratio
10.6 Using trigonometry to find angles