Mathematics

Year Group 9

Half Term 1

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| --- | --- |
| Number of Hours | Topic |
| 8  | Angles and Shape |
| 4 | Constructions |
| 12 | Perimeter, Area and Volume |
| 4 | Transformations and Loci |
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| Reasons behind order of topic in this half term |
| * Angle and Shape are taught together as they are intertwined. The angle problems and shape properties can be delivered as both separate and combined topics.
* Constructions further build on previous skills in congruence and similarity which transisitions into Angles and Shape.
* More complex problems can be introduced from basics taught in constructions (First principles of Euclidian Geometry, Euclid’s solids etc.) and be applied to volume problems.
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Mathematics

Year Group 9

Half Term 2

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| Number of Hours | Topic |
| 4 | Transformations and Loci |
| 8 | Probability |
| 12 | Statistics |
| 8 | Number and Arithmetic |
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| Reasons behind order of topic in this half term |
| * Transformations and Loci are very spatial topics that allow a natural progression of skills between the two topics.
* Probability and statistics are grouped together in order to allow opportunities to transisition between the topics.
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Mathematics

Year Group 9

Half Term 3

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| Number of Hours | Topic |
| 4 | Rounding and Estimation |
| 4 | Powers, Indices and Standard form |
| 4 | Multiples, Factors and Primes |
| 8 | Fractions and Percentages |
| 4 | Ratio and Proportion |
|  |  |
| Reasons behind order of topic in this half term |
| * Further development of arithetic is required before looking at the above topics again.
* Topics merge and can be spliced with one another to provide challenge as well as a transisition between topics.
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Mathematics

Year Group 9

Half Term 4

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| Number of Hours | Topic |
| 4 | Units, Time and Scales |
| 8 | Algebraic expressions |
| 8 | Equations |
| 4 | Formula |
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| Reasons behind order of topic in this half term |
| * Students have the opportunity to be stretched and apply skills from years 7 and 8 using algebraic manipulation.
* Students knowledge base is built upon their Y8 understanding of basic algebraic skills.
* Simplification, expanding and factorising are all essential before solving equations.
* Formula and substituion interlace with the introduction of algebraic graphs and co-ordinate systems.
* Links are made between the topics and intergrated wherever possible.
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Mathematics

Year Group 9

Half Term 5

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| Number of Hours | Topic |
| 8 | Sequences |
| 4 | Consolidation |
| 4 | KA 3 preparation (non calc) |
| 4 | KA 3 preparation (Calc) |
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| Reasons behind order of topic in this half term |
| * Sequences at a higher level need a sound foundation of algebraic expressions and substiution.
* Time is built in to fully prepare students for the key assessment and to cover any topics due to unforseen circumstances.
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Mathematics

Year Group 9

Half Term 6

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| --- | --- |
| Number of Hours | Topic |
| 8 | KA3 |
| 4 | KA3 Analysis and target setting |
| 4 | Consolidation preparation for KS4 |
| 4 | Consolidation preparation for KS4 |
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| Reasons behind order of topic in this half term |
| * Preparation for KS4
* Problem solving alongside GCSE style questions can be introduced.
* Students to take ownership of their performance.
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| Reasons behind order of topics in this Year |
| The scheme is a spiral scheme of work at KS3 - same topic many times slightly different, students see the topics multiple times over the course of KS3. |