Higher Tier: Collated content for Paper 1H, 2H and 3H

| Number (*see Ratio - some overlap of topic areas) |  | Dr Frost Clip | R | A | G | Revised |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Arithmetic | Negative number | K92,K93 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
| Fractions | Fraction of an amount | K101a | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Fraction arithmetic | K98-K100 | 0 | 0 | $\square$ | $\square$ |
|  | Recurring decimal to fraction | K222 | 0 | $\square$ | $\square$ | 0 |
| Properties | Product of prime factors | K114 | 0 | 0 | 0 | $\square$ |
|  | Laws of indices | K206 | 0 | 0 | $\square$ | 0 |
|  | Negative and fractional indices | K207 | $\square$ | $\square$ | $\square$ | $\square$ |
| Powers and roots | Simplification of surds | K313 | $\square$ | $\square$ | $\square$ | $\square$ |
| Standard Form | Conversion | K212 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Calculation | K214,K215 | 0 | 0 | 0 | $\square$ |
| Approximation and estimation | Error Interval | K216 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Bounds | K216 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
| Other | Use of a calculator | E104 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Product rule for counting | K225 | $\square$ | $\square$ | $\square$ | $\square$ |
| Algebra |  |  | $\square$ | $\square$ | $\square$ | $\square$ |
| Manipulation | Simplification | K80 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Expansion of bracket | K83 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Factorisation | K178 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Laws of indices | K206 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Substitute values | K79 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Change subject of a formula | K186 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Forming an expression | K84 | $\bigcirc$ | 0 | $\square$ | $\square$ |
|  | Expansion of brackets | K179 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Difference of two squares | K179a | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Algebraic fractions | K201 | $\square$ | $\square$ | $\square$ | 0 |
| Equations and inequalities | Linear equation | K181, K182 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Form an equation | K183 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Set up and solve equation | K183 | $\bigcirc$ | 0 | $\square$ | 0 |
|  | Linear inequality | 177 | 0 | 0 | $\square$ | $\square$ |
|  | Quadratic equation | K267 | 0 | 0 | 0 | $\square$ |
|  | Quadratic inequality | K292 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Equations of parallel lines | K192 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Equation of a tangent to a circle | K264 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Simultaneous equations linear/quadratic | K198, K272 | $\square$ | $\square$ | $\square$ | $\square$ |
| Graphs | Coordinates | K75 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Quadratic graph | K203 | $\bigcirc$ | $\square$ | $\square$ | 0 |
|  | Gradient of a straight line graph | K188 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Gradients of parallel and perpendicular lines | K192 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Velocity-time graph | K150 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Gradient of a curve | K254 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |
|  | Transformations of functions | K284 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Graphs of trigonometric functions | K297 | $\square$ | $\square$ | $\square$ | $\square$ |
| Functions | Inverse and composite functions | K276, K277 | $\bigcirc$ | 0 | $\square$ | $\square$ |
| Ratio, proportion and rates of change (*see Number - some overlap of topic |  |  | $\square$ | $\square$ | $\square$ | $\square$ |
| Conversions | Time | K42 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Area | K245 | $\bigcirc$ | $\square$ | $\square$ | $\square$ |


| Percentages | Percentage of an amount | K108 | $\square$ | $\square$ | $\square$ | $\square$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage decrease | K109 | 0 | 0 | 0 | 0 |
|  | Depreciation | K113 | 0 | 0 | 0 | 0 |
|  | Reverse percentage | K209 | $\square$ | $\square$ | 0 | $\square$ |
| Ratio | Write as a ratio | K105a | $\bigcirc$ | $\square$ | 0 | $\square$ |
|  | Use of ratio | K105e | $\square$ | $\bigcirc$ | 0 | $\square$ |
|  | 1: $n$ form | K105b | 0 | $\bigcirc$ | 0 | 0 |
|  | Share in a ratio | K106 | 0 | $\bigcirc$ | 0 | 0 |
|  | Ratio to fraction | K105c | 0 | 0 | 0 | 0 |
| Proportion | Direct proportion | K223 | $\square$ | $\square$ | 0 | $\square$ |
|  | Currency conversion | K91 | $\bigcirc$ | $\square$ | 0 | 0 |
|  | Inverse proportion | K223 | $\square$ | $\square$ | 0 | 0 |
|  | Equations of proportion | K223 | $\square$ | $\square$ | $\square$ | $\square$ |
| Compound Measures | Average speed | K231 | $\square$ | $\square$ | 0 | $\square$ |
|  | Density | K232 | $\square$ | $\square$ | 0 | $\square$ |
|  | Pressure | E232 | 0 | 0 | 0 | 0 |
| Growth and decay | General iterative processes | K288 | 0 | $\square$ | 0 | 0 |
| Geometry and measures |  |  | $\square$ | $\square$ | 0 | $\square$ |
| Shape | Transformations | K168-K172 | $\square$ | $\square$ | 0 | $\square$ |
| Angles | Angles in a polygon | K227 | $\square$ | $\square$ | 0 | $\square$ |
|  | Circle theorems | K306 | 0 | 0 | 0 | 0 |
| Length, area and volume | Area of a rectangle | K71 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Area of a triangle | K73 | 0 | $\square$ | 0 | 0 |
|  | Area of a trapezium | K146 | $\bigcirc$ | $\bigcirc$ | 0 | $\square$ |
|  | Area of a circle | K144 |  |  |  |  |
|  | Area of a sector | K145 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Surface area of a cuboid | K162 | $\square$ | $\square$ | 0 | $\square$ |
|  | Volume of a cube | K163a | 0 | $\square$ | 0 | $\square$ |
|  | Volume of composite solid | K163c | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Similar triangles | K244 | $\bigcirc$ | $\square$ | 0 | 0 |
| Pythagoras's Theorem and Trigonometry | Pythagoras's Theorem | K228 | 0 | $\bigcirc$ | 0 | 0 |
|  | Trigonometry | K241, K242 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Sine and Cosine Rules | K302, K303 | 0 | $\square$ | 0 | 0 |
|  | Trigonometry in 3-D | K305 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Exact trigonometric values | K243 | $\bigcirc$ | $\bigcirc$ | 0 | $\square$ |
| Vectors | Column vectors | K309 | $\square$ | $\square$ | 0 | $\square$ |
|  | Vector geometry | K311 | $\square$ | $\square$ | 0 | $\square$ |
| Probability |  |  | $\square$ | $\square$ | $\square$ | $\square$ |
| Probability | Probability | K53 | $\square$ | $\square$ | 0 | $\square$ |
|  | Venn diagram | K219 | 0 | 0 | 0 | 0 |
|  | Probability from a Venn diagram | K261 | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Independent combined events | K259 | 0 | $\square$ | 0 | $\square$ |
|  | Dependent combined events | K260 | $\square$ | $\square$ | 0 | $\square$ |
| Statistics |  |  | $\square$ | $\square$ | $\square$ | $\square$ |
| Diagrams | Frequency polygon | K138 | $\square$ | $\square$ | 0 | $\square$ |
|  | Cumulative frequency graph | K257 | $\square$ | $\square$ | 0 | $\square$ |
|  | Box plot | K258 | 0 | $\square$ | 0 | 0 |
|  | Histogram | K296 | $\square$ | $\square$ | 0 | $\square$ |
| Measures | Mean | K58, K129 | $\square$ | $\square$ | 0 | 0 |
|  | Lower and upper quartiles | K256a | $\square$ | $\square$ | $\square$ | $\square$ |
|  | Inter-quartile range | K256b | $\square$ | $\square$ | $\square$ | $\square$ |
| Populations | Compare distributions | K132, K133 | $\square$ | $\square$ | 0 | $\square$ |
|  | Capture-recapture method | K141 | $\square$ | $\square$ | 0 | $\square$ |

