## Higher Skills Revision List

Use this as a working document to assess your understanding of the topics. RAG your confidence and understanding of the topics before you start. Choose a variety of topics to revise and then update the RAG sheet regularly so you can keep track of the subjects you want to prioritise. Remember - don't work for too long in one session, use a variety of revision strategies to keep your revision interesting. Get plenty of sleep! A tired brain will struggle to retain anything!

|  | Number | Sparx Website |  |
| :---: | :---: | :---: | :---: |
|  | Topics | Topic code | RAG |
| N1 | Fractions | U224, U538, U793 |  |
| N2 | Factors, multiples and primes | U739, U250 |  |
| N3 | Percentage change | U671, U332, U988 |  |
| N4 | Standard form | U330, U534, U264, U290 |  |
| N5 | Calculating with roots and fractional indices | U851, U985, U772, U299 |  |
| N6 | Converting recurring decimals to fractions | U689 |  |
| N7 | Surds | U338, U663, U872, U499 |  |
| N8 | Rationalising the denominator | U707, U281 |  |
| N9 | Error intervals | U657, U301, U587 |  |
|  | Algebra |  |  |
|  | Topics | Hegarty Number | RAG |
| A1 | Linear equations | U325, U870, U599 |  |
| A2 | Linear inequalities | U759, U738, U145, U337 |  |
| A3 | Index laws | U662 |  |
| A4 | Linear simultaneous equations | U760, U757, U836, U137 |  |
| A5 | Linear graphs and coordinates | U315, U669, U477, U848, U377 |  |
| A6 | Quadratic graphs and equations | U989, U667, U228, U601 |  |
| A7 | Expanding triple brackets | U606 |  |
| A8 | Operations with algebraic fractions | U685, U457, U824 |  |
| A9 | Factorising quadratic expressions: $\mathrm{ax} 2+\mathrm{bx}+\mathrm{c}$ | U858 |  |
| A10 | Simplifying algebraic fractions | U294 |  |
| A11 | Factorising to solve quadratics equations | U228, U960 |  |
| A12 | Using the quadratic formula | U665 |  |
| A13 | Completing the square to solve quadratics | U397, U589 |  |
| A14 | Quadratic equations in context | U150 |  |
| A15 | Quadratic simultaneous equations | U547 |  |
| A16 | Index laws | U235, U694, U662 |  |
| A17 | Equation of a straight line: Perpendicular lines | U898 |  |
| A18 | Quadratic graphs: Turning points | U769 |  |
| A19 | Quadratic simultaneous equations on graphs | U875 |  |
| A20 | Exponential graphs | U229 |  |
| A21 | Exponential growth and decay problems | U988 |  |


| A22 | Trigonometric graphs | U450 |  |
| :--- | :--- | :---: | :---: |
| A23 | Graph transformations | U598, U487, U455 |  |
| A24 | Velocity-time graphs | U937, U562, U611 |  |
| A25 | Rate of change graphs | U638, U652, U862 |  |
| A26 | Estimating gradient from a curve | U800 |  |
| A27 | Estimating area under a curve | U882 |  |
| A28 | Equation of a circles and tangents | U567 |  |
| A29 | Linear inequalities as graph regions | U747 |  |
| A30 | Quadratic inequalities | U637, U895, U448, U996 |  |
| A31 | Functions | U171 |  |
| A32 | Recurrence relations | U206 |  |
| A33 | Quadratic sequences | U434, U168 |  |
| A34 | Iteration and numerical methods | U582 |  |
| A35 | Algebraic proof |  |  |

## Geometry and measures

|  | Topics | Hegarty Number | RAG |
| :---: | :---: | :---: | :---: |
| G1 | Area | U226, U343, U950 |  |
| G2 | Volume | U786, U174, U915 |  |
| G3 | Angles | U655, U826, U329, U427 |  |
| G4 | Pythagoras' theorem | U385 |  |
| G5 | Trigonometry | U605, U283, U545 |  |
| G6 | Transformations | U196, U799, U696, U519, U766 |  |
| G7 | Congruence proofs | U866, U887 |  |
| G8 | Enlargements | U134 |  |
| G9 | Describe combined transformations | U766 |  |
| G10 | Circle theorems: Angles inside a circle | U459, U251 |  |
| G11 | Circle theorems: Tangents and chords | U489, U130 |  |
| G12 | Circle theorems problems | U808 |  |
| G13 | Prove circle theorems | U807 |  |
| G14 | Volume of frustums | U350 |  |
| G15 | Volume: Problem solving | U543, U426 |  |
| G16 | Similar Shapes: Area and volume | U630, U110 |  |
| G17 | Pythagoras' Theorem in 2D and 3D | U385, U541 |  |
| G18 | Right-angled trigonometry: Problem solving | U319, U283, U545, U967 |  |
| G19 | 3D trigonometry | U170 |  |
| G20 | The area rule | U592 |  |
| G21 | Sine rule | U952 |  |
| G22 | Cosine rule | U591 |  |
| G23 | Trigonometry and bearings | U164 |  |
| G24 | Vectors problems | U781, U560 |  |

Ratio, proportion and rates of change

|  | Topics | Hegarty Number | RAG |
| :---: | :--- | :---: | :---: |
| R1 | Ratio | U687, U753, U176, U577, U921, U865 |  |
| R2 | Speed | U151 |  |
| R3 | Density and pressure | U910, U527 |  |
| R4 | Proportion | U721, U357, U610 |  |
| R5 | Algebraic direct and inverse proportion | U407, U138 |  |
| R6 | Compound units: Density problem solving | U910 |  |


|  |  | Probability |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
|  | Topics | Hegarty Number | RAG |
| P1 | Calculating probabilities | U408, U510, U683, U580 |  |
| P2 | Expected outcomes | U166 |  |
| P3 | Tree diagrams | U558, U729 |  |
| P4 | Set notation | U748, U296 |  |
| P5 | Product rule for counting | U369 |  |
| P6 | Conditional probability | U246, U821, U806 |  |
| P7 | Probability from Venn diagrams |  |  |

## Statistics

|  | Topics | Hegarty Number | RAG |
| :--- | :--- | :---: | :---: |
| S1 | Averages | U717, U569, U877 |  |
| S2 | Averages with grouped data | U877 |  |
| S3 | Sampling | U162 |  |
| S4 | Scatter graphs | U199, U277, U128 |  |
| S5 | Frequency polygons | U840 |  |
| S6 | Cumulative frequency diagrams | U182, U642 |  |
| S7 | Box plots | U879, U837, U507 |  |
| S8 | Frequency polygons | U840 |  |
| S9 | Histograms |  |  |

