## Mathematics Revision List Year 9

## Summer 2023 End of Year Assessments

The topics that are being assessed are listed below. For each you need to:

- Watch videos clip or the CorbettMaths Video - CorbettMaths video numbers have a next to them.
- Complete the MathsWatch interactive questions.
- Write the date when you have completed each task.

| Core and Powerful Knowledge Test |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Rounding to a given number of decimal places | 2 | 32 |  |  |  |
| Rounding to a given number of significant figures | 3 | 90 |  |  |  |
| Rounding to the nearest Unit, 10, 100, 1000 | 2 | 31 |  |  |  |
| Know the inverse operations | 2 | 21 |  |  |  |
| Know the place value for individual digits within a number | 1 | 1 |  |  |  |
| Know the difference between a term, expression, formula, equation, and identity. Try this online quiz: <br> Formula, expression, identity or equation (mathswithgraham.org.uk) | 2 |  |  |  |  |
| Know how to write algebraic notation | 1 | 7 |  |  |  |
| Know the meaning of statistical vocabulary: Discrete date, continuous data, outlier, interpolation, and extrapolation. | 2 | 63 |  |  |  |
| Know how to use inequalities to represent grouped data | 1 | 5 |  |  |  |
| Know measurements of time and use this to calculate time | 1 | 6a |  |  |  |
| Know how to convert between fractions, decimals, and percentages. | 3 | 85 |  |  |  |
| Know the meaning of the mathematical works denominator, mixed number, improper fraction, numerator, and reciprocal. | 3 | 76 |  |  |  |


| Higher - Paper 1 <br> Non-Calculator (30 Marks) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 1 - Number |  |  |  |  |  |
| Place value and Estimating <br> Estimate an answer by rounding to 1 significant figure | 3 | 91 |  |  |  |
| HCF and LCM <br> Write a number of the product of its prime factors. | 3 | 78 |  |  |  |
| Find the HCF and LCM of two numbers. | 3 | $\begin{aligned} & \hline 79, \\ & 80 \end{aligned}$ |  |  |  |
| Zero, negative and fractional indices Use negative indices. | 5 | 154 |  |  |  |
| Use fractional indices. | 7 | 188 |  |  |  |
| Powers of 10 and standard form Write a number in standard form. | 3 | 83 |  |  |  |
| Calculate with numbers in standard form. | 3 | 83 |  |  |  |
| Surds | 8,9 | $\begin{gathered} 207 \\ a \end{gathered}$ |  |  |  |
| Simplify a surd. | 8,9 | $\begin{gathered} 207 \\ \mathrm{~b} \\ \hline \end{gathered}$ |  |  |  |
| Rationalise a denominator. | 8,9 | $\begin{gathered} 207 \\ c \end{gathered}$ |  |  |  |
| Unit 4 - Fractions, ratio and percentages |  |  |  |  |  |
| Fractions <br> Add fractions and mixed numbers. | 3 | 71 |  |  |  |
| Divide fractions and mixed numbers. | 3 | 74 |  |  |  |
| Percentages <br> Work out percentage increases and decreases. | 3 | 108 |  |  |  |
| Solve real-life problems involving percentages. | 3 | 108 |  |  |  |


| Higher - Paper 2 <br> Calculator (50 Marks) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Unit 2 - Algebra |  |  |  |  |  |
| Algebraic indices <br> Use the rules of indices to simplify algebraic expressions. | 4 | 131 |  |  |  |
| Expanding and factorising Expand single brackets. | 3 | 93 |  |  |  |
| Expand, Factorise and Solve Quadratics. | 4, 5 | $\begin{aligned} & 134 \\ & 157 \end{aligned}$ |  |  |  |
| Equations <br> Solve equations involving brackets. | 4 | 135 |  |  |  |
| Write expressions and equations. Use equations to solve problems. | 4 | 137 |  |  |  |
| Linear sequences <br> Find a general formula for the nth term of an arithmetic sequence. | 3 | 103 |  |  |  |
| Determine whether a particular number is a term of a given arithmetic sequence. | 3 | 102 |  |  |  |
| Non-linear sequences <br> Find the nth term of a quadratic sequence | 8,9 | 213 |  |  |  |
| Rearrange formulae/ Equations | 3 | 101 |  |  |  |
| Unit 3 - Graphs, tables, and charts |  |  |  |  |  |
| Scatter graphs <br> Plot and interpret scatter graphs. | 3 | 129 |  |  |  |
| Determine whether there is a linear relationship between two variables. | 3 | 129 |  |  |  |
| Line of best fit <br> Draw a line of best fit on a scatter graph. | 3 | 129 |  |  |  |
| Use the line of best fit to predict values. | 3 | 129 |  |  |  |
| Stem and Leaf <br> Draw a stem and leaf diagram and find averages. | 3 | 128b |  |  |  |
| Pie charts <br> Interpreting pie charts | 3 | 128a |  |  |  |
| Frequency <br> Estimate the mean and find the modal class from a grouped frequency table. | 3 | 130b |  |  |  |
| Construct and use frequency polygons. | 3 | - |  |  |  |
| Unit 4 - Fractions and percentages |  |  |  |  |  |
| Percentages <br> Calculate compound interest/ depreciation | 5 | 164 |  |  |  |
| Solve real-life problems involving percentages. | 3 | 108 |  |  |  |
| Reverse percentages | 3 | 110 |  |  |  |
| Ratio and proportion Convert between currencies and measures. | 3 | 105 |  |  |  |
| Recognise and use direct proportion. | 7 | 199 |  |  |  |
| Fractions, decimals and percentages <br> Calculate using fractions, decimals and percentages. | 3 | 110 |  |  |  |
| Convert a recurring decimal to a fraction. | 6 | 177 |  |  |  |

Revise, learn and practice your mathematical skill using the following websites.

| MathsWatch |  |
| :--- | :--- |
| www.vle.mathswatch.com |  |
| Use this website to watch video clips, practice interactive questions and complete |  |
| homework. |  |
| User Name: firstname.surname@abrahamdarby <br> Password: $\quad$ Circle | e.g. julie.may@abrahamdarby |
| Corbettmaths <br> https://corbettmaths.com |  |
| This website has video clips, topic specific worksheets, past papers, practice papers, daily <br> conundrum puzzles and 5-a-day practice questions. It provides answers to the questions, <br> some with detailed workings. It also publishes predicted GCSE papers. |  |
| BBC Bitesize <br> https://www.bbc.com/education/subjects |  |
| This website allows you to answer questions, which are marked immediately, whilst <br> revising. You can also take online tests, which give immediate feedback on how well you <br> are doing. | OnMaths <br> https://www.onmaths.com <br> This website shows the grade, percentage and mark you are achieving whilst you are <br> working through a tasks. The tasks include topic tests, past papers, predicted papers and <br> mini mocks. You can watch walkthrough videos before attempting questions. This <br> website also publishes predicted GCSE papers. |
| Maths Genie <br> https://www.mathsgenie.co.uk <br> This website sorts the revisions notes and videos according to grade. You are able to <br> download a test paper on a topic and view the detailed worked solutions. This website also <br> publishes predicted GCSE papers. |  |

