

# Out of Classroom Curriculum - Year 11 Maths

1. Find the correct week commencing row.
2. Find today's day - There are up to 3 different lessons in each day – you won't run out of work.
3. Chose a lesson – hold ctrl and click the chosen link.
  - a. If you don't recognise the work, it appears too difficult or the link doesn't load;
    - i. Try another task – look at the previous/next lesson or look at other days.
4. Some lessons have links to PowerPoints and other resources beneath the video and/or Starter Quiz (LSQ)
5. Complete any starter quizzes.
  - a. Write the question down
  - b. Write your answer down
  - c. Mark your answers and write down any corrections (using your purple pen)
6. Watch the videos and take notes in your learning booklet.
7. Pause if/when instructed to do so to answer questions or respond.
8. Complete and move onto the next lesson

| Week | Lesson    | Sets 1 to 3<br>Hold ctrl and click                                                                                                         | Sets 4 and 5<br>Hold ctrl and click                                                                                                                                                                | Sets 6 to 9<br>Hold ctrl and click                                                                                                                                                             |
|------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1    | Monday    | 1. <a href="#">0935 Expanding Double and Triple Brackets</a><br>2. <a href="#">0968 Expanding Double Brackets: a=1, a&gt;1</a>             | 1. <a href="#">Finding the Length of a Line from Tiled Squares</a><br>2. <a href="#">Right angled Triangles and Tiled Squares</a><br>3. <a href="#">Pythagoras: Finding Right-Angled Triangles</a> | 1. <a href="#">Mayan Numbers</a><br>2. <a href="#">0037 Powers and Roots</a><br>3. <a href="#">0611 Powers and Roots</a>                                                                       |
|      | Tuesday   | 1. <a href="#">0957 Quadratic Sequences 1</a><br>2. <a href="#">1105 Quadratic Sequences 2</a>                                             | 1. <a href="#">Generalising Pythagoras Theorem</a><br>2. <a href="#">Know and Understand Pythagoras Theorem</a><br>3. <a href="#">Pythagorean Triples</a>                                          | 1. <a href="#">Indices</a><br>2. <a href="#">Index Notation</a>                                                                                                                                |
|      | Wednesday | 1. <a href="#">0969 Factorising Quadratics 1</a><br>2. <a href="#">0970 Factorising Quadratics 2</a>                                       | 1. <a href="#">0550 Pythagoras 1</a><br>2. <a href="#">0551 Pythagoras 2</a>                                                                                                                       | 1. <a href="#">Laws of Indices</a><br>2. <a href="#">Index Laws</a>                                                                                                                            |
|      | Thursday  | 1. <a href="#">0973 Solving Quadratics 1</a><br>2. <a href="#">0974 Solving Quadratics 2</a>                                               | 1. <a href="#">0473 Pythagoras Theorem 1</a><br>2. <a href="#">0474 Pythagoras Theorem 2</a>                                                                                                       | 1. <a href="#">Base 10 and Base 5</a><br>2. <a href="#">0101 Multiplication and Division by Powers of 10</a><br>3. <a href="#">0883 Use of Index Notation for Powers of 10 in Calculations</a> |
|      | Friday    | <a href="#">GCSE Expanding and Factorising Quadratics Questions</a><br><a href="#">GCSE Expanding and Factorising Quadratics Solutions</a> | 1. <a href="#">1071 Pythagoras Theorem 3</a><br>2. <a href="#">1072 Pythagoras Theorem 4</a>                                                                                                       | <a href="#">0987 Laws of Indices for Multiplication</a>                                                                                                                                        |
|      | Monday    | <a href="#">GCSE Solving Quadratics Questions</a><br><a href="#">GCSE Solving Quadratics Solutions</a>                                     | <a href="#">1073 Pythagoras Theorem 5</a>                                                                                                                                                          | <a href="#">0988 Laws of Indices for Division</a>                                                                                                                                              |
|      | Tuesday   | <a href="#">GCSE Quadratic Graphs Questions</a><br><a href="#">GCSE Quadratic Graphs Solutions</a>                                         | <a href="#">Pythagoras Exam Questions</a>                                                                                                                                                          | 1. <a href="#">Indices and Power of Zero</a><br>2. <a href="#">0989 Zero and Negative Indices</a>                                                                                              |
|      | Wednesday | <a href="#">1.Circle Theorems 1</a>                                                                                                        | <a href="#">1.GCSE Pythagoras 1 Questions</a>                                                                                                                                                      | <a href="#">1.Negative Indices</a>                                                                                                                                                             |

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| 2 |           | 2. <a href="#">Angles at the Centre and Circumference</a>                                                      | 2. <a href="#">GCSE Pythagoras 1 Solutions</a>                                                              | 2. <a href="#">0989 Zero and Negative Indices</a>                                                                                                                          |
|   | Thursday  | 1. <a href="#">Circle Theorems 2</a><br>2. <a href="#">Angles in a Semi-Circle</a>                             | 1. <a href="#">GCSE Pythagoras 2 Questions</a><br>2. <a href="#">GCSE Pythagoras 2 Solutions</a>            | <a href="#">Fractional Indices</a>                                                                                                                                         |
|   | Friday    | 1. <a href="#">Circle Theorems 3</a><br>2. <a href="#">Angles in the same Segment</a>                          | 1. <a href="#">Right-Angled Trigonometry 1</a><br>2. <a href="#">Right-Angled Trigonometry 2</a>            | 1. <a href="#">0759 Circles: Naming Parts of a Circle</a><br>2. <a href="#">Know the Parts of a Circle</a><br>3. <a href="#">Parts of a Circle</a>                         |
| 3 | Monday    | 1. <a href="#">Circle Theorems 4</a><br>2. <a href="#">Angles in a Cyclic Quadrilateral</a>                    | <a href="#">Right-Angled Trigonometry 3</a>                                                                 | 1. <a href="#">0760 Area of a Circle</a><br>2. <a href="#">Area of Circles</a>                                                                                             |
|   | Tuesday   | 1. <a href="#">Circle Theorems 5</a><br>2. <a href="#">Tangent Perpendicular to Radii</a>                      | 1. <a href="#">Trigonometry 1</a><br>2. <a href="#">Trigonometry 2</a>                                      | 1. <a href="#">Area and Circumference of Circles 1</a><br>2. <a href="#">Area and Circumference of Circles 2</a><br>3. <a href="#">Area and Circumference of Circles 3</a> |
|   | Wednesday | 1. <a href="#">Circle Theorems 6</a><br>2. <a href="#">The Alternate Segment Theory</a>                        | 1. <a href="#">Trigonometry 3</a><br>2. <a href="#">Trigonometry 4</a><br>3. <a href="#">Trigonometry 5</a> | 1. <a href="#">0761 Circumference and Area of Circles</a><br>2. <a href="#">Circumference of Circles</a>                                                                   |
|   | Thursday  | 1. <a href="#">Equation of a Circle 1</a><br>2. <a href="#">Bisector of the Chord</a>                          | <a href="#">GCSE Trigonometry 1 Questions</a><br><a href="#">GCSE Trigonometry 1 Solutions</a>              | 1. <a href="#">0763 Semi and Quarter Circles</a><br>2. <a href="#">Semi-Circles and Quarter Circles</a>                                                                    |
|   | Friday    | 1. <a href="#">Equation of a Circle 2</a><br>2. <a href="#">Mixed Circle Theorem Problems</a>                  | <a href="#">GCSE Trigonometry 2 Questions</a><br><a href="#">GCSE Trigonometry 2 Solutions</a>              | 1. <a href="#">0764 Arc Lengths</a><br>2. <a href="#">Find the Arc Length</a>                                                                                              |
| 4 | Monday    | <a href="#">GCSE Circle Theorems 1 Questions</a><br><a href="#">GCSE Circle Theorems 1 Solutions</a>           | 1. <a href="#">Construct Triangles</a><br>2. <a href="#">Construct a Perpendicular Bisector</a>             | 1. <a href="#">0765 Area of Sectors</a><br>2. <a href="#">Area of a Sector 1</a><br>3. <a href="#">Area of Sector 2</a>                                                    |
|   | Tuesday   | <a href="#">GCSE Circle Theorems 2 Questions</a><br><a href="#">GCSE Circle Theorems 2 Solutions</a>           | 1. <a href="#">Perpendicular Bisector from Point to a Line</a>                                              | 2. <a href="#">0851 Area of Circles and Sectors</a><br>3. <a href="#">Radius from Sector Area</a>                                                                          |
|   | Wednesday | <a href="#">GCSE Proof of Circle Theorems Qs</a><br><a href="#">GCSE Proof of Circle Theorems Ss</a>           | <a href="#">Construct an Angle Bisector</a>                                                                 | <a href="#">0851 Circumference and Arc Length</a>                                                                                                                          |
|   | Thursday  | 1. <a href="#">Right-Angled Trigonometry 2</a><br>2. <a href="#">Right-Angled Trigonometry 3</a>               | 1. <a href="#">Constructions and Loci 1</a><br>2. <a href="#">Constructions and Loci 2</a>                  | <a href="#">Surface Area of Cylinders</a>                                                                                                                                  |
|   | Friday    | 1. <a href="#">Trigonometry 2</a><br>2. <a href="#">Trigonometry 3</a>                                         | 1. <a href="#">Loci Around a Point</a><br>2. <a href="#">Equidistant from Two Points</a>                    | 1. <a href="#">Volume 1</a><br>2. <a href="#">Volume 2</a><br>3. <a href="#">Volume 3</a>                                                                                  |
| 5 | Monday    | 1. <a href="#">Trigonometry 4</a><br>2. <a href="#">Trigonometry 5</a>                                         | <a href="#">Loci and Construction Questions</a><br><a href="#">Loci and Construction Solutions</a>          | 1. <a href="#">Volume of Cylinders</a><br>2. <a href="#">Volume of Cones</a>                                                                                               |
|   | Tuesday   | <a href="#">GCSE Trigonometry 1 Questions</a><br><a href="#">GCSE Trigonometry 1 Solutions</a>                 | <a href="#">Loci Questions</a><br><a href="#">Loci Solutions</a>                                            | 1. <a href="#">Volume of Spheres</a><br>2. <a href="#">Volume of Hemisphere</a>                                                                                            |
|   | Wednesday | <a href="#">GCSE Trigonometry 2 Questions</a><br><a href="#">GCSE Trigonometry 2 Solutions</a>                 | <a href="#">Constructions Questions</a><br><a href="#">Constructions Solutions</a>                          | 1. <a href="#">Similar Triangles</a><br>2. <a href="#">0819 Congruent Triangles</a>                                                                                        |
|   | Thursday  | <a href="#">GCSE Trigonometric Graphs Questions 1</a><br><a href="#">GCSE Trigonometric Graphs Solutions 1</a> | 1. <a href="#">Similar Triangles</a><br>2. <a href="#">0819 Congruent Triangles</a>                         | 1. <a href="#">0859 Similar Shapes 1</a><br>2. <a href="#">0570 Similar Shapes 2</a>                                                                                       |
|   | Friday    | <a href="#">GCSE Trigonometric Graphs Questions 2</a>                                                          | 1. <a href="#">0859 Similar Shapes 1</a><br>2. <a href="#">0570 Similar Shapes 2</a>                        | 1. <a href="#">1019 Similar Shapes 3</a><br>2. <a href="#">1100 Similar Shapes 4</a>                                                                                       |

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|       |           | <a href="#">GCSE Trigonometric Graphs Solutions 2</a>                                                                                                                              |                                                                                                                                                                                        | 3. <a href="#">1101 Similar Shapes 5</a>                                                                                             |
| 6     | Monday    | 1. <a href="#">0788 Changing the Subject 1</a><br>2. <a href="#">0951 Changing the Subject 2</a><br><a href="#">1007 Changing the Subject 3</a>                                    | 1. <a href="#">1019 Similar Shapes 3</a><br>2. <a href="#">1100 Similar Shapes 4</a><br>3. <a href="#">1101 Similar Shapes 5</a>                                                       | 1. <a href="#">0820 Similar Shapes – Finding the Scale Factor</a><br>2. <a href="#">0821 Similar Shapes – Using the Scale Factor</a> |
|       | Tuesday   | 1. <a href="#">1007 Changing the Subject 3</a><br>2. <a href="#">1008 Changing the Subject 4</a><br><a href="#">1009 Changing the Subject 5</a>                                    | 1. <a href="#">0820 Similar Shapes – Finding the Scale Factor</a><br>2. <a href="#">0821 Similar Shapes – Using the Scale Factor</a><br>3. <a href="#">1309 Scale Factor Problems</a>  | <a href="#">GCSE Similar Shapes (Length) Questions</a><br><a href="#">GCSE Similar Shapes (Length) Questions</a>                     |
|       | Wednesday | 1. <a href="#">Rearrange and Solve Equations</a><br>2. <a href="#">1009 Changing the Subject 5</a><br><a href="#">Rearrange and Solve Equations</a>                                | <a href="#">GCSE Similar Shapes (Length) Questions</a><br><a href="#">GCSE Similar Shapes (Length) Questions</a>                                                                       | <a href="#">GCSE Similar Shapes (Area and Volume) Questions</a><br><a href="#">GCSE Similar Shapes (Area and Volume) Questions</a>   |
|       | Thursday  | <a href="#">GCSE Rearranging Equations Questions</a><br><a href="#">GCSE Rearranging Equations Solutions</a>                                                                       | <a href="#">GCSE Similar Shapes (Area and Volume) Questions</a><br><a href="#">GCSE Similar Shapes (Area and Volume) Questions</a>                                                     | 1. <a href="#">Collecting Like Terms 1</a><br>2. <a href="#">Collecting Like-Terms 2</a>                                             |
|       | Friday    | 1. <a href="#">1079 Algebraic Fractions 1</a><br>2. <a href="#">Adding Algebraic Fractions</a><br><a href="#">Solving by Adding Algebraic Fractions</a>                            | <a href="#">Design a Questionnaire</a>                                                                                                                                                 | <a href="#">Collecting Like-Terms 3</a>                                                                                              |
| 7 & 8 | Monday    | 1. <a href="#">1080 Algebraic Fractions 2</a><br>2. <a href="#">Subtract Algebraic Fractions</a><br><a href="#">Solving by Subtracting Algebraic Fractions</a>                     | 1. <a href="#">Sampling Methods</a><br>2. <a href="#">1033 Sampling: Stratified and Capture-Recapture</a>                                                                              | 1. <a href="#">Forming Simple Equations</a><br>2. <a href="#">Form and Solve Equations 1</a>                                         |
|       | Tuesday   | 1. <a href="#">1081 Algebraic Fractions 3</a><br>2. <a href="#">Write the Sum of Two Algebraic Fractions</a><br>3. <a href="#">Write the Difference of Two Algebraic Fractions</a> | 1. <a href="#">Stratified Sampling</a><br>2. <a href="#">Capture Recapture</a><br><a href="#">GCSE Capture Recapture Questions</a><br><a href="#">GCSE Capture Recapture Solutions</a> | <a href="#">Form and Solve Equations 2</a>                                                                                           |
|       | Wednesday | <a href="#">GCSE Algebraic Fractions Questions 1</a><br><a href="#">GCSE Algebraic Fractions Solutions 1</a>                                                                       | 1. <a href="#">0917 Cumulative Frequency Tables</a><br>2. <a href="#">Plot a Cumulative Frequency Graph</a>                                                                            | 1. <a href="#">Solve Simple Equations Using Inverse Operations</a><br>2. <a href="#">Using Inverse Proportion</a>                    |
|       | Thursday  | <a href="#">GCSE Algebraic Fractions Questions 2</a><br><a href="#">GCSE Algebraic Fractions Solutions 2</a>                                                                       | 1. <a href="#">Cumulative Frequency: Interquartile Range</a><br>2. <a href="#">Quartiles from a Data Set</a>                                                                           | 1. <a href="#">Solving 1-Step Linear Equations 1</a><br>2. <a href="#">Solving 1-Step Linear Equations 2</a>                         |
|       | Friday    | 1. <a href="#">1039 Adding and Multiplying Surds</a><br>2. <a href="#">Adding Surds</a><br>3. <a href="#">Subtracting Surds</a>                                                    | 1. <a href="#">GCSE Cumulative Frequency Questions</a><br>2. <a href="#">GCSE Cumulative Frequency Solutions</a>                                                                       | <a href="#">Solving 1-Step Linear Equations 3</a>                                                                                    |

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|---------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <b>Additional Content</b> | 1. <a href="#">1060 Algebraic Proof 1</a><br>2. <a href="#">1061 Algebraic Proof 2</a>                                        | 3. <a href="#">0969 Factorising Quadratics 1</a><br>4. <a href="#">0970 Factorising Quadratics 2</a>                                       | 1. <a href="#">1009 Changing the Subject 5</a><br>2. <a href="#">Rearrange and Solve Equations</a>         |
|                           | 1. <a href="#">Prove by Counter Example</a><br>2. <a href="#">Odd and Even Number Proofs</a>                                  | 3. <a href="#">0973 Solving Quadratics 1</a><br>4. <a href="#">0974 Solving Quadratics 2</a>                                               | 1. <a href="#">1009 Changing the Subject 5</a><br>2. <a href="#">Rearrange and Solve Equations</a>         |
|                           | 1. <a href="#">Prove an Expression will be the Multiple of a Given Number</a><br>2. <a href="#">Consecutive Number Proofs</a> | <a href="#">GCSE Expanding and Factorising Quadratics Questions</a><br><a href="#">GCSE Expanding and Factorising Quadratics Solutions</a> | 1. <a href="#">Solve Simultaneous Equations 1</a>                                                          |
|                           | <a href="#">GCSE Proof Questions 1</a><br><a href="#">GCSE Proof Solutions 1</a>                                              | <a href="#">GCSE Solving Quadratics Questions</a><br><a href="#">GCSE Solving Quadratics Solutions</a>                                     | 1. <a href="#">Solving Simultaneous Equations 2</a><br>2. <a href="#">Solve Simultaneous Equations 3</a>   |
|                           | <a href="#">GCSE Proof Questions 2</a><br><a href="#">GCSE Proof Solutions 2</a>                                              | <a href="#">GCSE Quadratic Graphs Questions</a><br><a href="#">GCSE Quadratic Graphs Solutions</a>                                         | 1. <a href="#">Solving Simultaneous Equations 4</a><br>2. <a href="#">Solving Simultaneous Equations 5</a> |