**Walton High School Hub Curriculum** 

**Year 10 HIGHER – Maths**

**Half term 3 (January 2025 – February 2025)**

How it works:

1. In the table, find the correct week by looking at the date in the first column.
2. Find today’s work – there are three links per double lesson so you won’t run out of work!
3. Choose a lesson – hold ctrl and click on the chosen link.

**If the link does not work, you do not recognise the work or the work is too difficult, try another lesson.**

1. Some lessons have links to PowerPoints and other resources beneath the video and/or Starter Quiz.
2. Complete any starter quizzes.
   1. Write your answer down
   2. Mark your answers and write down any corrections, using the videos.
3. Watch the videos and take notes.
4. Pause if/when instructed to do so to answer questions or respond.
5. When the lesson is complete, go onto the next one.

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| Week commencing | Day | Topic | Lesson 1 | Lesson 2 |
| 06/01/25 | Monday | Measure of 2D shapes | [Checking and securing understanding of converting between metric and imperial measures |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-converting-between-metric-and-imperial-measures/overview) | [Checking and securing understanding of scales and conversion |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-scales-and-conversion/overview) |
| Tuesday | [Checking and securing understanding of perimeter for standard shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-perimeter-for-standard-shapes/overview) | [Checking and securing understanding of perimeter for compound shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-perimeter-for-compound-shapes/overview) |
| Wednesday | [Checking and securing understanding of area for standard shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-area-for-standard-shapes/overview) | [Checking and securing understanding of area for compound shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-area-for-compound-shapes/overview) |
| Thursday | [Perimeter and area in a contextual setting |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/perimeter-and-area-in-a-contextual-setting/overview) | [Checking and securing understanding of circles |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/checking-and-securing-understanding-of-circles/overview) |
| Friday | [Calculating arc length |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/calculating-arc-length/overview) | [Area of a sector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/area-of-a-sector/overview) |
| 13/01/25 | Monday | [Area of compound shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/area-of-compound-shapes/overview) | [Shapes within shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/shapes-within-shapes/overview) |
| Tuesday | [Equations from complex shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/equations-from-complex-shapes/overview) | [Shapes on coordinate grids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/shapes-on-coordinate-grids/overview) |
| Wednesday | [Problem solving with complex 2D shapes |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/2d-and-3d-shape-compound-shapes/lessons/problem-solving-with-complex-2d-shapes/overview) | [Find the radius or diameter given the area of a sector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/parts-of-a-circle-1-2-0fd7/lessons/find-the-radius-or-diameter-given-the-area-of-a-sector-crupad/overview) |
| Thursday | [Find the length of an arc on a semicircle and quarter circle and the perimeter of a semicircle and quarter circle |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/parts-of-a-circle-1-2-0fd7/lessons/find-the-length-of-an-arc-on-a-semicircle-and-quarter-circle-and-the-perimeter-of-a-semicircle-and-quarter-circle-6mup4d/overview) | [Find the length of an arc and the perimeter of a sector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/parts-of-a-circle-1-2-0fd7/lessons/find-the-length-of-an-arc-and-the-perimeter-of-a-sector-6xj34c/overview) |
| Friday | [Use the arc length to find the radius or angle of a sector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/parts-of-a-circle-1-2-0fd7/lessons/use-the-arc-length-to-find-the-radius-or-angle-of-a-sector-70wk8r/overview) | [Calculate area of compound shapes with circles |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/parts-of-a-circle-1-2-0fd7/lessons/calculate-area-of-compound-shapes-with-circles-68r34d/overview) |
| 20/01/25 | Monday | Simultaneous Equations | [Solve linear simultaneous equations where one of the coefficients is equal |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/simultaneous-equations-linear-64b3/lessons/solve-linear-simultaneous-equations-where-one-of-the-coefficients-is-equal-75k64r/overview) | [Solve linear simultaneous equations where you need to multiply one of the equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/simultaneous-equations-linear-64b3/lessons/solve-linear-simultaneous-equations-where-you-need-to-multiply-one-of-the-equations-6nh64t/overview) |
| Tuesday | [Solve linear simultaneous equations where you need to multiply both equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/simultaneous-equations-linear-64b3/lessons/solve-linear-simultaneous-equations-where-you-need-to-multiply-both-equations-c8u62d/overview) | [Solve linear simultaneous equations where you need to first rearrange |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/simultaneous-equations-linear-64b3/lessons/solve-linear-simultaneous-equations-where-you-need-to-first-rearrange-6gv38c/overview) |
| Wednesday | [Checking and securing understanding of interpreting graphs |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/checking-and-securing-understanding-of-interpreting-graphs/overview) | [Forming simultaneous equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/forming-simultaneous-equations/overview) |
| Thursday | [Combining equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/combining-equations/overview) | [Solving algebraic simultaneous equations by elimination |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-algebraic-simultaneous-equations-by-elimination/overview) |
| Friday | [Solving more complex simultaneous equations by elimination |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-more-complex-simultaneous-equations-by-elimination/overview) | [Solving more complex simultaneous equations by elimination |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-more-complex-simultaneous-equations-by-elimination/overview) |
| 27/01/25 | Monday | [Solving simultaneous linear equations by substitution |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-simultaneous-linear-equations-by-substitution/overview) | [Solving simultaneous linear equations graphically |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-simultaneous-linear-equations-graphically/overview) |
| Tuesday | [Solving a quadratic and linear pair of simultaneous equations using elimination |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-a-quadratic-and-linear-pair-of-simultaneous-equations-using-elimination/overview) | [Solving a quadratic and linear pair of simultaneous equations using substitution |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-a-quadratic-and-linear-pair-of-simultaneous-equations-using-substitution/overview) |
| Wednesday | [Solving a quadratic and linear pair of simultaneous equations graphically |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-a-quadratic-and-linear-pair-of-simultaneous-equations-graphically/overview) | [Solving simultaneous equations by elimination from a context |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-simultaneous-equations-by-elimination-from-a-context/overview) |
| Thursday | [Solving simultaneous equations via any method |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/solving-simultaneous-equations-via-any-method/overview) | [Problem solving with linear and quadratic simultaneous equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/simultaneous-equations-2-variables/lessons/problem-solving-with-linear-and-quadratic-simultaneous-equations/overview) |
| Friday | [Solve where y = and y = (setting the equations equal to one another) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/one-linear-and-one-quadratic-simultaneous-equations-86b4/lessons/solve-where-and-setting-the-equations-equal-to-one-another-chk66d/overview) | [Solve where x² + y² = r and x + y = 3 (substituting) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/one-linear-and-one-quadratic-simultaneous-equations-86b4/lessons/solve-where-and-substituting-74v64t/overview) |
| 03/02/25 | Monday | Retrieval week | [Solve where xy = a and y = 2x + 1 (substituting) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/one-linear-and-one-quadratic-simultaneous-equations-86b4/lessons/solve-where-xy-a-and-y-2x-1-substituting-6rukec/overview) | [Understanding solutions to equations with respect to their graphs |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/one-linear-and-one-quadratic-simultaneous-equations-86b4/lessons/understanding-solutions-to-equations-with-respect-to-their-graphs-c8rkcc/overview) |
| Tuesday | [Negative integer indices and the power of zero |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/negative-and-fractional-indices-d4ec/lessons/negative-integer-indices-and-the-power-of-zero-70w64t/overview) | [Fractional indices |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/negative-and-fractional-indices-d4ec/lessons/fractional-indices-c4r64d/overview) |
| Wednesday | [Fractional indices (advanced) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/negative-and-fractional-indices-d4ec/lessons/fractional-indices-advanced-74rk4d/overview) | [Negative and fractional indices (mixed skills) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/negative-and-fractional-indices-d4ec/lessons/negative-and-fractional-indices-mixed-skills-c5h64c/overview) |
| Thursday | [Adding and subtracting fractions < 1 |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/adding-and-subtracting-fractions-8e1a/lessons/adding-and-subtracting-fractions-less-1-75gp8r/overview) | [Adding mixed numbers |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/adding-and-subtracting-fractions-8e1a/lessons/adding-mixed-numbers-6mu3jc/overview) |
| Friday | [Subtracting mixed numbers |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/adding-and-subtracting-fractions-8e1a/lessons/subtracting-mixed-numbers-6xk32e/overview) | [Mixed fraction addition and subtraction problems |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/adding-and-subtracting-fractions-8e1a/lessons/mixed-fraction-addition-and-subtraction-problems-cdj3ac/overview) |
| 10/02/25 | Monday | Loci Geometry | [Construct triangles | O](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-triangles-6dk3ec/overview) | [Construct a perpendicular bisector | O](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-a-perpendicular-bisector-74wked/overview) |
| Tuesday | [Construct a perpendicular bisector from a point to a line |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-a-perpendicular-bisector-from-a-point-to-a-line-crt3cc/overview) | [Construct an angle bisector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-an-angle-bisector-65jk4d/overview) |
| Wednesday | [Loci around a point |)](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/loci-around-a-point-6xhkgd/overview) | [Loci from a line |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/loci-from-a-line-6xj3cd/overview) |
| Thursday | [Loci from a shape |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/loci-from-a-shape-cmt36e/overview) | [Equidistant from two points |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/equidistant-from-two-points-6ru32d/overview) |
| Friday | [Construct triangles | O](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-triangles-6dk3ec/overview) | [Construct a perpendicular bisector | O](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/constructions-loci-a787/lessons/construct-a-perpendicular-bisector-74wked/overview) |