**Walton High School Hub Curriculum** 

**Year 10 HIGHER – Maths**

**Half term 4 (February 2025 – April 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 |
| 24/02/25 | Monday | Quadratics | [Recognising linear and non-linear graphs |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/recognising-linear-and-non-linear-graphs-chhk2e/overview)  | [Plotting quadratics (Part 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/plotting-quadratics-part-1-6wrk2t/overview)  |
| Tuesday | [Plotting quadratics (Part 2) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/plotting-quadratics-part-2-70wp8c/overview)  | [Quadratic contexts |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/quadratic-contexts-6gtpar/overview)  |
| Wednesday | [Maximum and minimum area |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/maximum-and-minimum-area-6njkee/overview)  | [Distributive property |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/distributive-property-60vkjd/overview)  |
| Thursday  | [Expanding double brackets |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/expanding-double-brackets-75hp2d/overview)  | [Difference of two squares |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/difference-of-two-squares-6rr68r/overview)  |
| Friday | [Factorising quadratics (Part 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/factorising-quadratics-part-1-c4v30e/overview)  | [Factorising quadratics (Part 2) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/factorising-quadratics-part-2-6cw6cr/overview)  |
| 03/03/25 | Monday  | [Sketching quadratics |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/sketching-quadratics-cdh34c/overview)  | [Interesting quadratic patterns |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-expressions-9-9-4f5c/lessons/interesting-quadratic-patterns-6rtk8d/overview)  |
| Tuesday  | [Forming quadratic equations I |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/forming-quadratic-equations-i-crtp4c/overview)  | [Forming quadratic equations II |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/forming-quadratic-equations-ii-c4v3et/overview)  |
| Wednesday  | [Solving pure quadratic equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-pure-quadratic-equations-6xk68r/overview)  | [Number of solutions |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/number-of-solutions-ctj62r/overview)  |
| Thursday  | [Solving quadratic simultaneous equations graphically |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-quadratic-simultaneous-equations-graphically-ccwpac/overview)  | [Solving quadratic equations graphically |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-quadratic-equations-graphically-cthk6t/overview)  |
| Friday | [Rearranging quadratic equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/rearranging-quadratic-equations-69h68e/overview)  | [Solving adfected quadratic equations (Part 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-adfected-quadratic-equations-part-1-c4rk2r/overview)  |
| 10/03/25 | Monday | [Solving adfected quadratic equations (Part 2) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-adfected-quadratic-equations-part-2-6tgk0d/overview)  | [Solving adfected quadratic equations (Part 3) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/solving-adfected-quadratic-equations-part-3-69hkac/overview)  |
| Tuesday | [Sketching quadratic graphs (Part 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/sketching-quadratic-graphs-part-1-6wwp4c/overview)  | [Sketching quadratic graphs (Part 2) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-9-l/units/quadratic-equations-9-10-b645/lessons/sketching-quadratic-graphs-part-2-61h62d/overview)  |
| Wednesday | [Use formulae to solve quadratic equations (b is positive) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/further-quadratic-equations-9336/lessons/use-formulae-to-solve-quadratic-equations-b-is-positive-68uk0t/overview)  | [Use formulae to solve quadratic equations (any value) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/further-quadratic-equations-9336/lessons/use-formulae-to-solve-quadratic-equations-any-value-70vkae/overview)  |
| Thursday | [Complete the square (a = 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/further-quadratic-equations-9336/lessons/complete-the-square-a-1-69h3at/overview)  | [Solve quadratic equations by completing the square |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/further-quadratic-equations-9336/lessons/solve-quadratic-equations-by-completing-the-square-64rpct/overview)  |
| Friday | [Plot simple quadratic equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-1-a-1-0f08/lessons/plot-simple-quadratic-equations-6gr32e/overview)  | [Plot other quadratic equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-1-a-1-0f08/lessons/plot-other-quadratic-equations-65h3ed/overview)  |
| 17/03/25 | Monday | [Solving Quadratic Equations Graphically |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-1-a-1-0f08/lessons/solving-quadratic-equations-graphically-6cr6ad/overview)  | [Identify and interpret roots, intercepts and turning points of quadratic graphs |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-1-a-1-0f08/lessons/identify-and-interpret-roots-intercepts-and-turning-points-of-quadratic-graphs-c4uk8d/overview)  |
| Tuesday | [Draw quadratic graphs (a > 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-2-a-1-aba2/lessons/draw-quadratic-graphs-a-greater-1-cgup2e/overview)  | [Draw quadratic graphs (negative x squared) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-2-a-1-aba2/lessons/draw-quadratic-graphs-negative-x-squared-6hgpcr/overview)  |
| Wednesday | [Solve quadratic graphs = 0, = a and = ax + b |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-2-a-1-aba2/lessons/solve-quadratic-graphs-0-a-and-ax-b-c5h3jd/overview)  | [Solving quadratic equations, given a different quadratic, using a sketch |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/quadratic-graphs-2-a-1-aba2/lessons/solving-quadratic-equations-given-a-different-quadratic-using-a-sketch-6tjk2d/overview)  |
| Thursday | [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)  |
| Friday | [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)  |
| 24/03/25 | Monday  | Retrieval week | [Find the mean, median, mode and range from a list of numbers |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/averages-from-a-list-and-tables-stem-and-leaf-2afc/lessons/find-the-mean-median-mode-and-range-from-a-list-of-numbers-chhker/overview)  | [Stem and leaf diagrams |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/averages-from-a-list-and-tables-stem-and-leaf-2afc/lessons/stem-and-leaf-diagrams-6gr3je/overview)  |
| Tuesday | [Mean from a frequency table |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/averages-from-a-list-and-tables-stem-and-leaf-2afc/lessons/mean-from-a-frequency-table-6thp2e/overview)  | [Mean from a grouped frequency table |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/averages-from-a-list-and-tables-stem-and-leaf-2afc/lessons/mean-from-a-grouped-frequency-table-65h6ad/overview)  |
| Wednesday | [Plot a cumulative frequency diagram |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/higher-data-1-cf-and-box-plots-bcfa/lessons/plot-a-cumulative-frequency-diagram-6cw34r/overview)  | [Find quartiles and interquartile range from CF diagram |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/higher-data-1-cf-and-box-plots-bcfa/lessons/find-quartiles-and-interquartile-range-from-cf-diagram-cmw3at/overview)  |
| Thursday | [Find quartiles from a list of data |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/higher-data-1-cf-and-box-plots-bcfa/lessons/find-quartiles-from-a-list-of-data-61k34t/overview)  | [Plot a box plot and compare distributions |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/higher-data-1-cf-and-box-plots-bcfa/lessons/plot-a-box-plot-and-compare-distributions-cgrk2t/overview)  |
| Friday | [Increase and Decrease an Amount by a Percentage |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/percentage-increase-and-decrease-fc15/lessons/increase-and-decrease-an-amount-by-a-percentage-6rw3gt/overview)  | [Calculate Percentage Change |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-core-l/units/percentage-increase-and-decrease-fc15/lessons/calculate-percentage-change-60vkjd/overview)  |
| 31/03/25 | Monday | Measure of 3D shapes | [Volume of Cubes and Cuboids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-1-prisms-f8ea/lessons/volume-of-cubes-and-cuboids-6hhk6r/overview)  | [Finding the Volume of Triangular Prisms |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-1-prisms-f8ea/lessons/finding-the-volume-of-triangular-prisms-6cukgd/overview)  |
| Tuesday | [Finding the Surface Area of Cubes and Cuboids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-1-prisms-f8ea/lessons/finding-the-surface-area-of-cubes-and-cuboids-6nh68c/overview)  | [Finding the Surface Area of Triangular Prisms |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-1-prisms-f8ea/lessons/finding-the-surface-area-of-triangular-prisms-6dh3ae/overview)  |
| Wednesday | [Volume and surface area of a pyramid |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-2-a6e8/lessons/volume-and-surface-area-of-a-pyramid-ccr6ct/overview)  | [Volume and surface area of a cone |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-2-a6e8/lessons/volume-and-surface-area-of-a-cone-70v68t/overview)  |
| Thursday | [Volume and surface area of a sphere |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-2-a6e8/lessons/volume-and-surface-area-of-a-sphere-6rvp6t/overview)  | [Volume and surface area of composite solids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-2-a6e8/lessons/volume-and-surface-area-of-composite-solids-71hk0t/overview)  |
| Friday | [Volume and surface area of a pyramid |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/surface-area-2-8ef0/lessons/volume-and-surface-area-of-a-pyramid-ccr6ct/overview)  | [Volume and surface area of a cone |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/surface-area-2-8ef0/lessons/volume-and-surface-area-of-a-cone-70v68t/overview)  |
| 07/04/25 | Monday | [Volume and surface area of a sphere |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/surface-area-2-8ef0/lessons/volume-and-surface-area-of-a-sphere-6rvp6t/overview)  | [Volume and surface area of composite solids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/surface-area-2-8ef0/lessons/volume-and-surface-area-of-composite-solids-71hk0t/overview)  |
| Tuesday | [Volume and surface area of a pyramid |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-2-46cd/lessons/volume-and-surface-area-of-a-pyramid-ccr6ct/overview)  | [Volume and surface area of a cone |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-2-46cd/lessons/volume-and-surface-area-of-a-cone-70v68t/overview)  |
| Wednesday | [Volume and surface area of a sphere |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-2-46cd/lessons/volume-and-surface-area-of-a-sphere-6rvp6t/overview)  | [Volume and surface area of composite solids |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/volume-and-surface-area-2-46cd/lessons/volume-and-surface-area-of-composite-solids-71hk0t/overview)  |
| Thursday | [Surface area and volume of a hemisphere |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/volume-and-surface-area-higher-3-b9cf/lessons/surface-area-and-volume-of-a-hemisphere-6nh3ce/overview)  | [Surface area and volume of a hemisphere |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/volume-and-surface-area-higher-3-b9cf/lessons/surface-area-and-volume-of-a-hemisphere-6nh3ce/overview)  |
| Friday | [Find the volume of a frustum |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/volume-and-surface-area-higher-3-b9cf/lessons/find-the-volume-of-a-frustum-c4wk6d/overview)  | [Surface Area: Further problem solving |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/volume-and-surface-area-higher-3-b9cf/lessons/surface-area-further-problem-solving-6mt3ed/overview)  |