**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 | Function notation and transformations | [Find a particular value of f(x) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/functions-f129/lessons/find-a-particular-value-of-fx-ccwk6d/overview)  | [Solve equations using f(x) = |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/functions-f129/lessons/solve-equations-using-fx-71jk0c/overview)  |
| Tuesday | [Composite functions |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/functions-f129/lessons/composite-functions-crr30d/overview)  | [Find inverse functions |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/functions-f129/lessons/find-inverse-functions-75k68t/overview)  |
| Wednesday | [Transformation of graphs (translations) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/other-graphs-trig-exponetial-and-transformations-331c/lessons/transformation-of-graphs-translations-6xhk0d/overview)  | [Transformation of graphs (reflections) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/other-graphs-trig-exponetial-and-transformations-331c/lessons/transformation-of-graphs-reflections-6wt68d/overview)  |
| Thursday  | [Translate and describe an object given a horizontal or vertical instruction |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/translate-and-vectors-1-4275/lessons/translate-and-describe-an-object-given-a-horizontal-or-vertical-instruction-6hgket/overview)  | [Translate and describe a 2D vector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/translate-and-vectors-1-4275/lessons/translate-and-describe-a-2d-vector-65k3cr/overview)  |
| Friday | [Represent a column vector as a diagram and using notation |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/translate-and-vectors-1-4275/lessons/represent-a-column-vector-as-a-diagram-and-using-notation-c8vp4t/overview)  | [Write a column vector from a diagram |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/translate-and-vectors-1-4275/lessons/write-a-column-vector-from-a-diagram-74tkce/overview)  |
| 03/03/25 | Monday  | [Checking and securing understanding of congruence and similarity |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-congruence-and-similarity/overview)  | [Checking and securing understanding of rotation |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-rotation/overview)  |
| Tuesday  | [Checking and securing understanding of translation |)](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-translation/overview) | [Checking and securing understanding of reflection |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-reflection/overview)  |
| Wednesday  | [Checking and securing understanding of enlargement with positive integer scale factors |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-enlargement-with-positive-integer-scale-factors/overview)  | [Checking and securing understanding of enlargement with positive fractional scale factors |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/checking-and-securing-understanding-of-enlargement-with-positive-fractional-scale-factors/overview)  |
| Thursday  | [Enlargement using a negative scale factor |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/enlargement-using-a-negative-scale-factor/overview)  | [Describing a negative enlargement |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/describing-a-negative-enlargement/overview)  |
| Friday | [Multiple transformations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/multiple-transformations/overview)  | [Identifying multiple transformations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/further-transformations/lessons/identifying-multiple-transformations/overview)  |
| 10/03/25 | Monday | [Translate and describe an object given a horizontal or vertical instruction |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/translate-and-vectors-1-4275/lessons/translate-and-describe-an-object-given-a-horizontal-or-vertical-instruction-6hgket/overview)  | [Translate and describe a 2D vector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/translate-and-vectors-1-4275/lessons/translate-and-describe-a-2d-vector-65k3cr/overview)  |
| Tuesday | [Represent a column vector as a diagram and using notation |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/translate-and-vectors-1-4275/lessons/represent-a-column-vector-as-a-diagram-and-using-notation-c8vp4t/overview)  | [Write a column vector from a diagram |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/translate-and-vectors-1-4275/lessons/write-a-column-vector-from-a-diagram-74tkce/overview)  |
| Wednesday | [Add two column vectors (including diagrams) to give a resultant vector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/vectors-2-429e/lessons/add-two-column-vectors-including-diagrams-to-give-a-resultant-vector-6xgp2d/overview)  | [Add and subtract two column vectors to give a resultant vector (Part 1) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/vectors-2-429e/lessons/add-and-subtract-two-column-vectors-to-give-a-resultant-vector-part-1-chjp2t/overview)  |
| Thursday | [Multiply a vector by a scalar |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/vectors-2-429e/lessons/multiply-a-vector-by-a-scalar-64u3cr/overview)  | [Add and subtract two column vectors to give a resultant vector (Part 2) |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/vectors-2-429e/lessons/add-and-subtract-two-column-vectors-to-give-a-resultant-vector-part-2-61k38e/overview)  |
| Friday | [Find the length of a column vector |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/higher-vectors-1-a8ef/lessons/find-the-length-of-a-column-vector-6cu38r/overview) | [Simple vector diagrams | O](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/higher-vectors-1-a8ef/lessons/simple-vector-diagrams-74v34t/overview) |
| 17/03/25 | Monday | Numerical methods - iteration | [Solve equations numerically: Change of sign |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-change-of-sign-cmr30c/overview)  | [Solve equations numerically: Trial and improvement |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-trial-and-improvement-c4w34c/overview)  |
| Tuesday | [Solve equations numerically: Rearrange to form iterative formulae |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-rearrange-to-form-iterative-formulae-6xgp4c/overview)  | [Solve equations numerically: Solving equations using iteration |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-solving-equations-using-iteration-c5h6cr/overview)  |
| Wednesday | [Solve equations numerically: Change of sign |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-change-of-sign-cmr30c/overview)  | [Solve equations numerically: Trial and improvement |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-trial-and-improvement-c4w34c/overview)  |
| Thursday | [Solve equations numerically: Rearrange to form iterative formulae |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-rearrange-to-form-iterative-formulae-6xgp4c/overview)  | [Solve equations numerically: Solving equations using iteration |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-solving-equations-using-iteration-c5h6cr/overview)  |
| Friday | [Solve equations numerically: Change of sign |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-change-of-sign-cmr30c/overview)  | [Solve equations numerically: Trial and improvement |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-higher-l/units/solve-equations-numerically-iteration-cf04/lessons/solve-equations-numerically-trial-and-improvement-c4w34c/overview)  |
| 24/03/25 | Monday  | Pre-calculus | [Identify rational and irrational numbers |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/simplifying-surds-71e6/lessons/identify-rational-and-irrational-numbers-69j32c/overview)  | [Simplify simple surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/simplifying-surds-71e6/lessons/simplify-simple-surds-6mvk8c/overview)  |
| Tuesday | [Simplify a surd of the form a√b |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/simplifying-surds-71e6/lessons/simplify-a-surd-of-the-form-ab-cctp4r/overview)  | [Write a√b in form √x |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/simplifying-surds-71e6/lessons/write-ab-in-form-x-crr3jr/overview)  |
| Wednesday | [Add two surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/adding-surds-a57d/lessons/add-two-surds-6wwk0c/overview)  | [Subtract two surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/adding-surds-a57d/lessons/subtract-two-surds-6njkac/overview)  |
| Thursday | [Add two surds where you need to simplify |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/adding-surds-a57d/lessons/add-two-surds-where-you-need-to-simplify-chh6cc/overview)  | [Subtract two surds where you need to simplify |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-11-core-l/units/adding-surds-a57d/lessons/subtract-two-surds-where-you-need-to-simplify-6gukce/overview)  |
| Friday | [Accuracy of final answers |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/accuracy-of-final-answers/overview)  | [Identifying square factors to support simplifying surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/identifying-square-factors-to-support-simplifying-surds/overview)  |
| 31/03/25 | Monday | [Simplifying surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/simplifying-surds/overview)  | [Addition with surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/addition-with-surds/overview)  |
| Tuesday | [Multiplication of surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/multiplication-of-surds/overview)  | [Applying the underlying structure of multiplication and division of surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/applying-the-underlying-structure-of-multiplication-and-division-of-surds/overview)  |
| Wednesday | [The distributive law with surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/the-distributive-law-with-surds/overview)  | [The distributive law with two or more binomials |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/the-distributive-law-with-two-or-more-binomials/overview)  |
| Thursday | [Rationalising a single term denominator |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/rationalising-a-single-term-denominator/overview)  | [Rationalising a two term denominator |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/rationalising-a-two-term-denominator/overview)  |
| Friday | [Solving equations with surds |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/solving-equations-with-surds/overview)  | [Problem solving with surds |)](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher/units/surds/lessons/problem-solving-with-surds/overview) |
| 07/04/25 | Monday | Retrieval week | [Know tangent, sine and cosine |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-1-0125/lessons/know-tangent-sine-and-cosine-6mvk4d/overview)  | [Use tangent to find a length |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-1-0125/lessons/use-tangent-to-find-a-length-c5gkge/overview)  |
| Tuesday | [Use sine and cosine to find a length |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-1-0125/lessons/use-sine-and-cosine-to-find-a-length-75hk0c/overview)  | [Applying Trigonometry |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-1-0125/lessons/applying-trigonometry-6mup2c/overview)  |
| Wednesday | [Use trigonometry to find the perpendicular height of a triangle |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-2-5cbb/lessons/use-trigonometry-to-find-the-perpendicular-height-of-a-triangle-c4v3ee/overview)  | [Solve basic trigonometry equations |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-2-5cbb/lessons/solve-basic-trigonometry-equations-6cup6r/overview)  |
| Thursday | [Use inverse functions to find an angle |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-2-5cbb/lessons/use-inverse-functions-to-find-an-angle-61jp2d/overview)  | [Solve problems mixing angles and sides |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-2-5cbb/lessons/solve-problems-mixing-angles-and-sides-6djk2e/overview)  |
| Friday | [Know the trigonometry ratios for 0°, 30°,45°,60° and 90° |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-3-945e/lessons/know-the-trigonometry-ratios-for-0-30-45-60-and-90-6nk3ee/overview)  | [Substitute the exact values to find a missing length |](https://www.thenational.academy/pupils/programmes/maths-secondary-year-10-higher-l/units/trigonometry-3-945e/lessons/substitute-the-exact-values-to-find-a-missing-length-cgup4d/overview)  |