**Walton High School Hub Curriculum** 

**Year 11 – Science Half term 1 (September 2025 – October 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 | Subject/Topic | Lesson 1 | Lesson 2 |
| 01/09/25 | Monday |  |  |  |
| Tuesday | **Biology** – The Nervous System, Reflexes and Reactions | [Homeostasis Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.01) | [The Nervous System, Synapses & Reflexes Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.05) |
| Wednesday | [Brain Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.12) | [Eyes 1 - Structure of the Eye & Iris Reflex Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.13) |
| Thursday | [Eyes 2 - Accommodation & Visual Defects Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.14) | [Thermoregulation Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.02) |
| Friday | [Endocrine System Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.07) | [Regulating Glucose Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.03) |
| 08/09/25 | Monday | **Chemistry** – Moles, Masses, Concentrations | [Three types of chemical reaction |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/three-types-of-chemical-reaction/overview) | [Conservation of mass |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/conservation-of-mass/overview) |
| Tuesday | [Balancing equations |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/balancing-equations/overview) | [The mole |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/the-mole/overview) |
| Wednesday | [Representations of a mole |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/representations-of-a-mole/overview) | [Moles and masses |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/moles-and-masses/overview) |
| Thursday | [Mass in a chemical reaction: using moles |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/mass-in-a-chemical-reaction-using-moles/overview) | [Limiting reactants |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/limiting-reactants/overview) |
| Friday | [Uncertainties in measurements: chemistry |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/uncertainties-in-measurements-chemistry/overview) | [Determining an equation from given values |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/determining-an-equation-from-given-values/overview) |
| 15/09/25 | Monday | **Physics** – Energy Calculations | [Work done calculations (W = F × s) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/work-done-calculations-w-equals-f-s/overview) | [Power calculations (P = W/t) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/power-calculations-p-w-t/overview) |
| Tuesday | [Calculating efficiency (in terms of energy and power) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/calculating-efficiency-in-terms-of-energy-and-power/overview) | [Calculating the energy of moving objects (Ek=1/2mv2) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/calculating-the-energy-of-moving-objects-ek1-2mv2/overview) |
| Wednesday | [The energy of objects in a gravitational field (EP=mgh) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/the-energy-of-objects-in-a-gravitational-field-epmgh/overview) | [Calculating energy changes - with complex examples (Ek and Ep) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/calculating-energy-changes-with-complex-examples-ek-and-ep/overview) |
| Thursday | [Stretching a spring practical |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/stretching-a-spring-practical/overview) | [Stretching a spring analysis and calculations (F=ke) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/stretching-a-spring-analysis-and-calculations-f-ke/overview) |
| Friday | [Calculating the energy of springs (Ee = 1/2 ke²) |](https://www.thenational.academy/pupils/programmes/physics-secondary-year-10-higher-aqa/units/energy-of-moving-objects/lessons/calculating-the-energy-of-springs-ee-equals-1-2-ke/overview) | [Energy Stores & Systems Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.01) |
| 22/09/25 | Monday | **Biology** – Hormones, Glucose Regulation and Diabetes | [Hormones: puberty, the menstrual cycle and the menopause |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-11-higher-aqa/units/hormones-and-human-reproduction/lessons/hormones-puberty-the-menstrual-cycle-and-the-menopause/overview) | [Hormonal control of the menstrual cycle |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-11-higher-aqa/units/hormones-and-human-reproduction/lessons/hormonal-control-of-the-menstrual-cycle/overview) |
| Tuesday | [Hormonal and non-hormonal methods of contraception |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-11-higher-aqa/units/hormones-and-human-reproduction/lessons/hormonal-and-non-hormonal-methods-of-contraception/overview) | [Using hormones to treat infertility |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-11-higher-aqa/units/hormones-and-human-reproduction/lessons/using-hormones-to-treat-infertility/overview) |
| Wednesday | [Diabetes Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.04) | [Kidneys 1 - Overview & ADH Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.09) |
| Thursday | [Kidneys 2 - Anatomy & Nephrons Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.1) | [Kidneys 3 - Dialysis & Transplants Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_4.11) |
| Friday | [Reproductive Hormones - Puberty & Menstrual Cycle Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.08) | [Contraception Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.09) |
| 29/09/25 | Monday | **Chemistry** – Acids, Alkalis and pH | [Determining an equation experimentally: magnesium oxide |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/determining-an-equation-experimentally-magnesium-oxide/overview) | [Determining an equation experimentally: sodium hydrogencarbonate |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/determining-an-equation-experimentally-sodium-hydrogencarbonate/overview) |
| Tuesday | [Gas volumes |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/gas-volumes/overview) | [Converting between mass and volume using moles |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-10-higher-aqa/units/calculations-involving-masses/lessons/converting-between-mass-and-volume-using-moles/overview) |
| Wednesday | [Acids & Bases Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.01) | [Titration Practical Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.02) |
| Thursday | [Strong Acids & Weak Acids Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.03) | [Neutralisations reactions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.04) |
| Friday | [Acids and alkalis Lesson |](https://cognitoedu.org/coursesubtopic/c1-ks3-default_rxKYKOkB) | [Neutralisation Lesson |](https://cognitoedu.org/coursesubtopic/c1-ks3-default_UsPUjhuV) |
| 06/10/25 | Monday | **Physics** – Energy Calculations | [Energy Transfer Examples Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.02) | [Kinetic Energy Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.03) |
| Tuesday | [Gravitational Potential Energy & Gravity Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.04) | [Transfer Between KE & GPE Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.05) |
| Wednesday | [Specific Heat Capacity Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.07) | [Conservation of Energy Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.08) |
| Thursday | [Conduction, Convection & Radiation Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.09) | [Reducing Unwanted Energy Transfers Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.1) |
| Friday | [Power & Work Done Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.11) | [Efficiency Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_1.12) |
| 13/10/25 | Monday | **Biology** – Menstrual Cycle and Fertility | [Fertility Treatment Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.1) | [Adrenaline & Thyroxine Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_7.11) |
| Tuesday | [Plant Hormones - Auxins Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_6.15) | [Plant Hormones - Commercial Uses Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_6.16) |
| Wednesday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=251&lesson=4535) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=251&lesson=4534) |
| Thursday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=251&lesson=4537) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=251&lesson=4536) |
| Friday |  |  |  |
| 21/10/24 | Monday | **Chemistry** - Salts | [Making Salts Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_11.01) | [Redox Reactions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.09) |
| Tuesday | [Electrolysis 1 - Introduction Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.1) | [Electrolysis 2 - Aluminium Oxide Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.11) |
| Wednesday | [Electrolysis 3 - Aqueous Solutions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.12) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4473) |
| Thursday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4475) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4476) |
| Friday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4477) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4478) |