**Walton High School Hub Curriculum** 

**Year 10 – Science 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.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Week commencing | Day | Subject/Topic | Lesson 1 | Lesson 2 |
| 24/02/25 | Monday | **Biology** – Mitosis, Stem Cells | [Growth in multicellular organisms |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/growth-in-multicellular-organisms/overview) | [The cell cycle and cell division: mitosis |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/the-cell-cycle-and-cell-division-mitosis/overview) |
| Tuesday | [The structure of DNA: including nucleotides |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/the-structure-of-dna-including-nucleotides/overview) | [Errors in cell division and cancer: beyond the basics |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/errors-in-cell-division-and-cancer-beyond-the-basics/overview) |
| Wednesday | [Specialised cells, unspecialised cells and differentiation |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/stem-cells-and-differentiation/lessons/specialised-cells-unspecialised-cells-and-differentiation/overview) | [Stem cells in animals |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/stem-cells-and-differentiation/lessons/stem-cells-in-animals/overview) |
| Thursday | [Meristem cells in plants |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/stem-cells-and-differentiation/lessons/meristem-cells-in-plants/overview) | [Using stem cells in medicine: potential benefits, risks and ethical issues |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/stem-cells-and-differentiation/lessons/using-stem-cells-in-medicine-potential-benefits-risks-and-ethical-issues/overview) |
| Friday | [Stem Cells Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_1.11) | [Specialised Cells & Differentiation Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_1.1) |
| 03/03/25 | Monday | **Chemistry** – Electrolysis | [Formation of Ions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_2.01) | [Ionic Bonding Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_2.02) |
| Tuesday | [Ionic Compounds Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_2.03) | [Separating Metals from Metal Oxides Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.08) |
| Wednesday | [The Reactivity Series & Displacement Reactions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.06) | [Electrolysis 1 - Introduction Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.1) |
| Thursday | [Electrolysis 2 - Aluminium Oxide Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.11) | [Electrolysis 3 - Aqueous Solutions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.12) |
| Friday | [Electrolysis Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_11.03) | [Redox Reactions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.09) |
| 10/03/25 | Monday | **Physics** – Decay and Decay Equations | [Development of the Model of the Atom Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.01) | [Atomic Structure, Isotopes & Electron Shells Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.02) |
| Tuesday | [Alpha, Beta and Gamma Radiation Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.03) | [Nuclear Decay Equations Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.04) |
| Wednesday | [Radioactive Decay & Half Life Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.05) | [Why Radiation is Harmful Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.06) |
| Thursday | [Using Radiation in Medicine Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.07) | [Nuclear Fission Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.09) |
| Friday | [Nuclear Fusion Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.1) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=421&lesson=3381) |
| 17/03/25 | Monday | **Biology** – Cancer, Alcohol and Smoking, Meiosis | [Lifestyle diseases |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/disease-and-drugs/lessons/lifestyle-diseases/overview) | [Asthma |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/disease-and-drugs/lessons/asthma/overview) |
| Tuesday | [Vaping |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/disease-and-drugs/lessons/vaping/overview) | [Smoking |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/disease-and-drugs/lessons/smoking/overview) |
| Wednesday | [Cancer |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/health-and-disease/lessons/cancer/overview) | [Risk factors for non-communicable diseases |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/health-and-disease/lessons/risk-factors-for-non-communicable-diseases/overview) |
| Thursday | [Errors in cell division and cancer: beyond the basics |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/errors-in-cell-division-and-cancer-beyond-the-basics/overview) | [Making gametes: meiosis |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/cell-division-mitosis-and-meiosis/lessons/making-gametes-meiosis/overview) |
| Friday | [Meiosis Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_8.1) | [Risk factors for Non-Communicable Diseases Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_5.11) |
| 24/03/25 | Monday | **Chemistry -** Electrolysis | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4506) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4505) |
| Tuesday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4504) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=250&lesson=4503) |
| Wednesday | [Ionic Compounds Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_2.03) | [Electrolysis 1 - Introduction Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.1) |
| Thursday | [Electrolysis 2 - Aluminium Oxide Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.11) | [Electrolysis 3 - Aqueous Solutions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.12) |
| Friday | [Electrolysis Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_11.03) | [Redox Reactions Lesson |](https://cognitoedu.org/coursesubtopic/c2-gcse-aqa-h-t_4.09) |
| 31/03/25 | Monday | **Physics** – Half life, Radioactivity, Models of the Atom | [Development of the atomic model |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-l/units/atomic-structure-and-the-periodic-table-u68nqqc/lessons/development-of-the-atomic-model-fon1nm/overview) | [Atomic structure |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-l/units/atomic-structure-and-the-periodic-table-u68nqqc/lessons/atomic-structure-b4j7jk/overview) |
| Tuesday | [Isotopes |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-l/units/atomic-structure-and-the-periodic-table-u68nqqc/lessons/isotopes-vhm4rn/overview) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=421&lesson=3365) |
| Wednesday | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=421&lesson=3381) | [Greenshaw Learning Trust - Remote Learning](https://www.greenshawlearningtrust.co.uk/virtual-curriculum?group=421&lesson=3385) |
| Thursday | [Alpha, Beta and Gamma Radiation Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.03) | [Nuclear Decay Equations Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.04) |
| Friday | [Radioactive Decay & Half Life Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.05) | [Why Radiation is Harmful Lesson |](https://cognitoedu.org/coursesubtopic/p2-gcse-aqa-h-t_8.06) |
| 07/04/25 | Monday | **Biology** – Asexual and Sexual Reproduction, Quadrats and Sampling | [Flower structure |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/reproduction-in-plants/lessons/flower-structure/overview) | [Pollination and fertilisation |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/reproduction-in-plants/lessons/pollination-and-fertilisation/overview) |
| Tuesday | [Insects and food security |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/reproduction-in-plants/lessons/insects-and-food-security/overview) | [Fruit and seeds |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/reproduction-in-plants/lessons/fruit-and-seeds/overview) |
| Wednesday | [Alleles, genotype, and phenotype |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/inheritance-genotype-and-phenotype/lessons/alleles-genotype-and-phenotype-d7978/overview) | [Models of single-gene inheritance: Punnett squares |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/inheritance-genotype-and-phenotype/lessons/models-of-single-gene-inheritance-punnett-squares/overview) |
| Thursday | [Models of single-gene inheritance: family tree diagrams |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/inheritance-genotype-and-phenotype/lessons/models-of-single-gene-inheritance-family-tree-diagrams/overview) | [Explaining inheritance: Mendel and beyond |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/inheritance-genotype-and-phenotype/lessons/explaining-inheritance-mendel-and-beyond/overview) |
| Friday | [The inheritance of biological sex in humans |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-higher-aqa/units/inheritance-genotype-and-phenotype/lessons/the-inheritance-of-biological-sex-in-humans/overview) | [Field Investigations Lesson |](https://cognitoedu.org/coursesubtopic/b2-gcse-aqa-h-t_11.1) |