**Walton High School Hub Curriculum** 

**Year 8 – Science Half term 2 (November 2024 – December 2024)**

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 |
| 04/11/24 | Monday | **Chemistry** – Exothermic and Endothermic Reactions | [What happens during a state change? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-happens-during-a-state-change-c8wp6e/overview) | [What is a physical change and how can we identify them? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-is-a-physical-change-and-how-can-we-identify-them-6xgk8d/overview) |
| Tuesday | [What is a chemical reaction and how can we identify them? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-is-a-chemical-reaction-and-how-can-we-identify-them-c4t34d/overview) | [What is the difference between physical and chemical changes? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-is-the-difference-between-physical-and-chemical-changes-64upcr/overview) |
| Wednesday | [What can we do to investigate chemical reactions? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-can-we-do-to-investigate-chemical-reactions-70vk8d/overview) | [What happens when we place metals into acid? |](https://www.thenational.academy/pupils/programmes/science-primary-year-5-l/units/physical-and-chemical-changes-a481/lessons/what-happens-when-we-place-metals-into-acid-cgrp8d/overview) |
| Thursday | [How do particles in solids, liquids and gases behave? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/how-do-particles-in-solids-liquids-and-gases-behave-cnj38t/overview) | [What do particles in pure substances and mixtures look like? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/what-do-particles-in-pure-substances-and-mixtures-look-like-6wup6c/overview) |
| Friday | [What happens to particles during dissolving? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/what-happens-to-particles-during-dissolving-74t36c/overview) | [How can mixtures be separated? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/how-can-mixtures-be-separated-70tkjc/overview) |
| 11/11/24 | Monday | **Biology –** A balanced diet | [The parts of the human digestive system |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/the-parts-of-the-human-digestive-system/overview) | [Digestion and enzymes |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/digestion-and-enzymes/overview) |
| Tuesday | [Food tests: practical |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/food-tests-practical/overview) | [Bacteria in the human digestive system |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/bacteria-in-the-human-digestive-system/overview) |
| Wednesday | [Absorption and transport of nutrients in humans |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/absorption-and-transport-of-nutrients-in-humans/overview) | [Good and ill health |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/good-and-ill-health/overview) |
| Thursday | [Balanced diet |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/balanced-diet/overview) | [Food is a source of building materials and energy |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/food-is-a-source-of-building-materials-and-energy/overview) |
| Friday | [Energy provided by food: practical |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/energy-provided-by-food-practical/overview) | [Imbalanced diet: starvation and deficiency diseases |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/imbalanced-diet-starvation-and-deficiency-diseases/overview) |
| 18/11/24 | Monday | **Chemistry –** Thermal Decomposition | [How can we tell a chemical reaction has taken place? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/how-can-we-tell-a-chemical-reaction-has-taken-place-chjp8e/overview) | [What happens to particles during burning? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/particles-in-physical-and-chemical-changes-dc49/lessons/what-happens-to-particles-during-burning-cctp2d/overview) |
| Tuesday | [Chemical reactions: acid and metal |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/understanding-chemical-reactions/lessons/chemical-reactions-acid-and-metal/overview) | [Chemical reactions: acid and metal carbonate |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/understanding-chemical-reactions/lessons/chemical-reactions-acid-and-metal-carbonate/overview) |
| Wednesday | [Compounds and their formation |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/compounds-and-their-formation/overview) | [Chemical formulae |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/chemical-formulae/overview) |
| Thursday | [Naming compounds |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/naming-compounds/overview) | [A particle model of chemical reactions |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/a-particle-model-of-chemical-reactions/overview) |
| Friday | [Heating and cooling |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/heating-and-cooling/overview) | [Cooling curve: practical |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/cooling-curve-practical/overview) |
| 25/11/24 | Monday | **Biology –** Digestive System | [Imbalanced diet: obesity |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/imbalanced-diet-obesity/overview) | [The effects of exercise on the human body |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/the-effects-of-exercise-on-the-human-body/overview) |
| Tuesday | [The effects of exercise on breathing and heart rate |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/the-effects-of-exercise-on-breathing-and-heart-rate/overview) | [Recovery time after exercise |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/recovery-time-after-exercise/overview) |
| Wednesday | [Biological molecules |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/biological-molecules/overview) | [Tests for biological molecules |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/tests-for-biological-molecules/overview) |
| Thursday | [Obtaining the elements needed to make biological molecules |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/obtaining-the-elements-needed-to-make-biological-molecules/overview) | [Enzymes: function, structure and specificity |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/enzymes-function-structure-and-specificity/overview) |
| Friday | [Effects of substrate concentration and temperature on rate of enzyme activity |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/effects-of-substrate-concentration-and-temperature-on-rate-of-enzyme-activity/overview) | [The effect of pH on the rate of an enzyme reaction: plan |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/the-effect-of-ph-on-the-rate-of-an-enzyme-reaction-plan/overview) |
| 02/12/24 | Monday | **Chemistry –** Air Pollution | [Exothermic and endothermic chemical reactions |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/exothermic-and-endothermic-chemical-reactions/overview) | [Comparing fuels |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/comparing-fuels/overview) |
| Tuesday | [Gases in the atmosphere |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/carbon-cycle-and-climate-change/lessons/gases-in-the-atmosphere/overview) | [Atmospheric carbon |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/carbon-cycle-and-climate-change/lessons/atmospheric-carbon/overview) |
| Wednesday | [The carbon cycle |](https://www.thenational.academy/pupils/programmes/science-secondary-year-9/units/carbon-cycle-and-climate-change/lessons/the-carbon-cycle/overview) | [Earth's atmosphere (approximate values) |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-foundation-aqa/units/atmosphere-and-changing-climate/lessons/earths-atmosphere-approximate-values/overview) |
| Thursday | [Burning hydrocarbons |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-foundation-aqa/units/atmosphere-and-changing-climate/lessons/burning-hydrocarbons/overview) | [Atmospheric pollutants |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-foundation-aqa/units/atmosphere-and-changing-climate/lessons/atmospheric-pollutants/overview) |
| Friday | [Acid rain and chemical weathering |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-foundation-aqa/units/atmosphere-and-changing-climate/lessons/acid-rain-and-chemical-weathering/overview) | [Greenhouse gases |](https://www.thenational.academy/pupils/programmes/chemistry-secondary-year-11-foundation-aqa/units/atmosphere-and-changing-climate/lessons/greenhouse-gases/overview) |
| 09/12/24 | Monday | **Biology –** Malnutrition | [The effect of pH on the rate of an enzyme reaction: practical |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/the-effect-of-ph-on-the-rate-of-an-enzyme-reaction-practical/overview) | [The effect of pH on the rate of an enzyme reaction: data analysis |](https://www.thenational.academy/pupils/programmes/biology-secondary-year-10-foundation-aqa/units/biological-molecules-and-enzymes/lessons/the-effect-of-ph-on-the-rate-of-an-enzyme-reaction-data-analysis/overview) |
| Tuesday | [What are the key parts of a healthy diet? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/what-are-the-key-parts-of-a-healthy-diet-60wkgr/overview) | [Why do people with different lifestyles need different diets? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/why-do-people-with-different-lifestyles-need-different-diets-6nj66r/overview) |
| Wednesday | [What effect does exercise have on the muscles? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/what-effect-does-exercise-have-on-the-muscles-60up8d/overview) | [What happens to the circulatory system during exercise? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/what-happens-to-the-circulatory-system-during-exercise-c8w62c/overview) |
| Thursday | [What are medicinal drugs? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/what-are-medicinal-drugs-68vk0e/overview) | [What are nicotine and alcohol? |](https://www.thenational.academy/pupils/programmes/science-primary-year-6-l/units/diet-and-lifestyle-f893/lessons/what-are-nicotine-and-alcohol-cgv3ec/overview) |
| Friday | [Imbalanced diet: obesity |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/imbalanced-diet-obesity/overview) | [The effects of exercise on the human body |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/diet-and-exercise/lessons/the-effects-of-exercise-on-the-human-body/overview) |
| 16/12/24 | Monday | **Retrieval Practice** | [The parts of the human digestive system |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/the-parts-of-the-human-digestive-system/overview) | [Digestion and enzymes |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/digestion-and-enzymes/overview) |
| Tuesday | [Food tests: practical |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/food-tests-practical/overview) | [Bacteria in the human digestive system |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/human-digestive-system/lessons/bacteria-in-the-human-digestive-system/overview) |
| Wednesday | [Exothermic and endothermic chemical reactions |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/exothermic-and-endothermic-chemical-reactions/overview) | [Comparing fuels |](https://www.thenational.academy/pupils/programmes/science-secondary-year-8/units/fuels-and-energetics/lessons/comparing-fuels/overview) |
| Thursday | [Compounds and their formation |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/compounds-and-their-formation/overview) | [Chemical formulae |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/chemical-formulae/overview) |
| Friday | [Naming compounds |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/naming-compounds/overview) | [A particle model of chemical reactions |](https://www.thenational.academy/pupils/programmes/science-secondary-year-7/units/atoms-elements-and-compounds/lessons/a-particle-model-of-chemical-reactions/overview) |