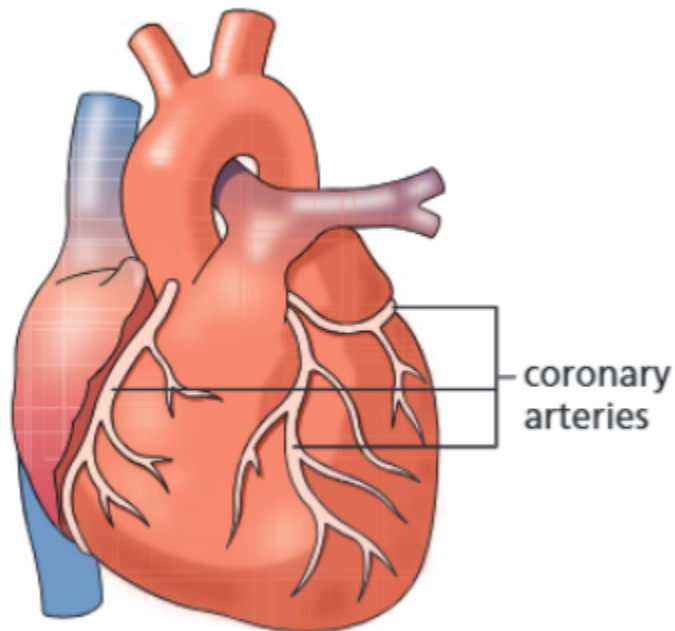


## L2 Triple Biology - Head Start Activities



The coronary arteries supply oxygen and food to the heart muscles

Dear Students,

Welcome to your 'Find out more...' page for **L2 Biology**. This course offers a fascinating exploration into the living world, from the microscopic inner workings of individual cells to the complex interactions within global ecosystems. You will build a foundational understanding of how human bodies function, how traits are inherited, and how life adapts to survive.

We look forward to working with you from September

**Subject Lead: Mr Affram**

### Course details:

- Title: AQA Level 2 Certificate / GCSE Biology
- Level: Level 2 (KS5 Transition / Foundation Entry)
- Board: AQA
- Website: <https://www.aqa.org.uk/subjects/biology/gcse/biology-8461/specification>
- NHSG Course information linked here

In these activities and ideas, you will find not only opportunities to stretch your thinking but also to help you discover what you are passionate about, both inside and beyond the classroom

## NHSG Sixth Form - Head Start

**Listen** to podcasts and talks, by subject experts and inspiring female leaders.

- 📖 **The Infinite Monkey Cage (BBC Radio 4):** Hosted by Brian Cox and Robin Ince, this podcast frequently brings in top biologists to discuss big questions, such as the origins of life and how ecosystems collapse.
- 📖 **Life Scientific (BBC Radio 4):** Interviews with leading scientists, including inspiring female leaders like Professor Sarah Gilbert, who designed the Oxford-AstraZeneca COVID-19 vaccine.
- 📖 **Big Biology Podcast:** Explores fundamental biological questions, from genetics to physiology, hosted by world-class research scientists.

**Watch** documentaries, interviews, or mini-lectures linked to your subjects to deepen your understanding.

- 📖 **David Attenborough's Documentaries (BBC iPlayer / Netflix):** Specifically, *Our Planet* or *The Mating Game* to gain a deep visual grasp of ecology, food webs, and biodiversity.
- 📖 **The Inner Life of the Cell (Harvard University Animation on YouTube):** A stunning, short molecular animation showing protein synthesis and intracellular transport in action.
- 📖 **Royal Institution Christmas Lectures:** Seek out past lectures on genetics and cell mutation to see biology applied in live, engaging demonstrations.

**Read** articles, essays, or books that challenge your thinking and expand your subject knowledge.

- 📖 **The *Immortal Life of Henrietta Lacks* by Rebecca Skloot:** A captivating look into cell biology, the discovery of HeLa cells, and the massive ethical considerations surrounding modern medicine.
- 📖 **The *Selfish Gene* by Richard Dawkins:** An excellent book to challenge your perspective on natural selection, evolution, and inheritance.
- 📖 **New Scientist (Biology section):** Try checking out their online feed or physical magazine once a month to keep an eye on breaking news regarding gene-editing (CRISPR) technology.

**Visit** local exhibitions, galleries, or workplaces that connect with your studies and open your eyes to future possibilities.

- 📖 **The Natural History Museum (London or local regional variants):** Spend time in the Darwin Centre and evolutionary galleries to see classification and adaptation histories up close.
- 📖 **Local Botanical Gardens or Nature Reserves:** Visit a managed ecosystem to look at how local conservationists study plant diseases, sample biodiversity, and manage environmental stressors.
- 📖 **Science Museum / Local University Open Days:** Look for interactive laboratories focusing on medical imaging, microscopy, or cellular pathology.

**Go beyond** the essentials, to explore big questions and wider issues. What are the big challenges facing your subject?

To truly stretch your thinking before September, consider researching and writing a brief paragraph on one of these three critical global hurdles:

- 📖 **Antibiotic Resistance:** With bacteria rapidly evolving to outsmart our best medicines, how can global health authorities prevent returning to an era where minor infections are fatal?
- 📖 **Climate Change and Biodiversity Loss:** As human actions shrink natural habitats, how can ecological conservation save critical "keystone species" from going extinct?
- 📖 **The Ethics of Genetic Modification:** With technologies like CRISPR making it easier to alter DNA, where should scientists draw the line between curing hereditary diseases and creating "engineered" organisms?