# Welcome to GCSE Biology

## **Specification Information**

- Specification details: AQA GCSE BIOLOGY (8461)
- GCSE Biology is an important science. As a field of science, **Biology** helps us understand the
  living world and the ways its many species (including humans) function, evolve, and interact.
  Advances in medicine, agriculture, biotechnology, and many other areas of **Biology** have
  brought improvements in the quality of life.
- The course is broken into seven separate topics. This course provides a firm foundation for progression to A-level Biology. On completion of the course pupils will be awarded a GCSE in Biology.

Note: Pupils taking the Separate Science pathway will be awarded the three separate GCSE science subjects.

## What you will learn

- 1. Cell biology
- 2. Organisation
- 3. Infection and response
- 4. Bioenergetics
- 5. Homeostasis and response
- 6. Inheritance, variation and evolution
- 7. Ecology

### How you will be assessed?

#### Paper 1

#### What's assessed

Topics 1–4: Cell biology; Organisation; Infection and response; and Bioenergetics.

#### How it's assessed

- Written exam: 1 hour 45 minutes
- Foundation and Higher Tier
- 100 marks
- 50 % of GCSE

#### Questions

Multiple choice, structured, closed short answer and open response.

#### + Paper 2

#### What's assessed

Topics 5–7: Homeostasis and response; Inheritance, variation and evolution; and Ecology.

#### How it's assessed

- Written exam: 1 hour 45 minutes
- Foundation and Higher Tier
- 100 marks
- 50 % of GCSE

#### Questions

Multiple choice, structured, closed short answer and open response.

## Skills developed

- Students taking GCSE Biology can use the knowledge and skills they gain to specialise in any
  of the three separate sciences.
- The topics met through KS4 further develop recall, application and investigative skills.
- The required practical element of the courses allows students to become familiar with common scientific apparatus, methods and laboratory techniques.
- 'How science works' is an important element of GCSE Biology. Through scientific inquiry, students are able to formulate methods, collect measurements and observations to investigate their own hypotheses. Recording, presenting and evaluating both secondary and primary data to draw conclusions.
- The curriculum sparks the imagination and passion in our students by allowing them to formulate their own understanding of the living world around them, this underpins and develops their own thought processes and opinions on matters relating to the natural world, their own personal well-being and their impact on the environment.

Note: Pupils taking the Separate Science pathway will be awarded the three separate GCSE science subjects.

## Careers/Next steps

- This course provides a firm foundation for progression to A-level Biology
- A GCSE in Biology opens the door to many career paths. Here are just a few areas that require you to study Biology to A-Level and beyond.
- ➢ Biotechnologist
- ➤ Marine biologist
- ➤ Microbiologist
- ➤ Nanotechnologist
- Doctor of medicine
- ▶ Pharmacologist
- Animal physiotherapist
- ➤ Dentist
- Genetic counsellor
- Medical science liaison
- ➤ Zoologist

## Where can you find more information

- Twitter: <a href="mailto:@westhillscience">@westhillscience</a>
- Email (Head of Science): <a href="mailto:carty@westhillschool.co.uk">carty@westhillschool.co.uk</a>
- School website: https://www.westhillschool.co.uk/page/?title=Science&pid=116
- Examples of the past exam papers can be found here: https://www.aqa.org.uk/subjects/science/gcse/biology-8461/assessmentresources?f.Resource+type%7C6=Question+papers