



Our Science curriculum intent at Swanshurst, is to encourage a healthy curiosity for Science in all of our students. We develop this through broad, exciting, practical hands-on learning experiences that encourage questioning and investigation of the changing world around us.

We aim to inspire enquiring minds, and develop lifelong learners who are critical scientific thinkers. We also aim to challenge misconceptions, and push boundaries to promote opportunities for all young women in STEM wherever we can.

Key Stage 4

AQA Separate Sciences Specification in GCSE Biology Specification Code: 8461

Paper 1 topics taught in Year 9 and 10

- 1. Cell Biology
- 2. Organisation
- 3. Infection and Response
- 4. Bioenergetics

Paper 2 topics taught in Y10 and 11

- 5. Homeostasis and Response
- 6. Inheritance, variation and evolution
- 7. Ecology

These modules provide all the building blocks of **Biology** and appropriately prepare students for **A Level Biology** or **BTEC Science** options Post-16. The course is assessed in 2 exams (*both 1hr 45 minutes*) at the end of Year 11.



Students are tested on their understanding of the topics, their ability to apply their knowledge and also lab skills in practical experiments. Students will study 10 key experiments called '**Required Practicals**' alongside the other practical work that the course includes.

Key Stage 5

AQA A Level Biology specification Code: 7401 7402

Year 1

- Biological molecules
- Cells
- Organisms exchange substances with their environment
- Genetic information, variation and relationships between organisms

Year 2

- Energy transfers in and between organisms
- Organisms respond to changes in their internal and external environments
- Genetics, populations, evolution and ecosystems
- The control of gene expression

At the end of the 2 years students sit 3 exam papers. These exams assess understanding of the topics, students ability to apply their learning, how well students can make links with concepts within the topics in an essay and also students understanding of practical skills.

As with GCSE, there are specific practicals we require students to complete alongside their other practical work that is included on the course. A separate endorsement of practical skills will be taken alongside the A Level.

This will be assessed by teachers and will be based on direct observation of students' competency in a range of skills that are not assessable in written exams. This is to provide students with a solid grounding in labwork for their future studies or careers.