

# Biology

<b>Course Length:</b>	Studied over two years
<b>Examination Board:</b>	AQA
<b>Course Leader:</b>	Mr R Meecham (meecham@queenelizabeths.derbyshire.sch.uk)

**Why study Biology?** As with the other sciences, biology helps you to build up research, problem solving, organisation and analytical skills.

If you study biology, you will likely find yourself working on group projects, which will help you build your teamwork and communication skills too.

Biology is a key subject for lots of STEM careers, particularly in healthcare, medicine and jobs involving plants or animals. This includes: nursing, dentistry, forensic science, psychology, physiotherapy, botany, environmental science, zoology, geology, oceanography, pharmaceuticals, energy industry, science writing, genetics, anthropology, psychology, civil engineering, geography, and teaching.

We highly recommend that students have a companion textbook for the duration of the two-year course. There are a variety of AQA endorsed books available from the major publishing houses, and we advise that students investigate which one suits them the best. Alternatively, QEGS Science department can provide a textbook, for a refundable deposit of £20.

## Course Content

Year 1	Year 2
<p><b>Topics covered:</b></p> <ol style="list-style-type: none"><li>1. Biological molecules</li><li>2. Cells</li><li>3. Organisms exchange substances with their environment</li><li>4. Genetic information, variation and relationships between organisms</li></ol>	<p><b>Topics covered:</b></p> <ol style="list-style-type: none"><li>5. Energy transfers in and between organisms</li><li>6. Organisms respond to changes in their internal and external environments</li><li>7. Genetics, populations, evolution and ecosystems</li><li>8. The control of gene expression</li></ol> <p><b>Practical work:</b></p> <p>Students will undertake at least 12 practical activities across the A-Level course to CPAC standards, as directed by the Examination Board. These will be internally assessed and provide the opportunity to learn and use practical skills to link theory with practice, so deepening knowledge and understanding. Teachers will 'endorse' the practical work which, if passed, will be reported on the A-Level Certificate.</p> <p>In addition, 15% of the A-Level marks on all of the written papers will be allocated to practical knowledge and understanding.</p> <p><b>Assessment:</b></p> <p>Three written examination papers at the end of the 2 year A-Level Course.</p>