RGS
NEWCASTLE

INTRODUCTION TO

BIOLOGY

at RGS







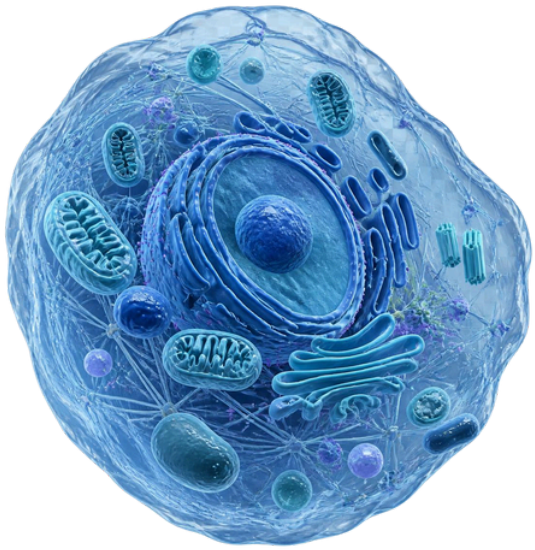


Biology at RGS encourages students to explore the living world, ask questions and understand the science behind life itself.

From the workings of cells and the human body to genetics, evolution and ecosystems, students develop an understanding of the processes that connect all living things.

Practical investigation is central to the subject. Students learn to observe carefully, analyse evidence, solve problems and think logically, developing skills that extend far beyond the laboratory.

From Year 7 through to Year 13, Biology combines curiosity, challenge and hands-on learning, giving students the confidence to investigate ideas independently and preparing them for further study in science and beyond.



YEAR 7 AND YEAR 8

Students begin by exploring the fundamental principles of Biology through a combination of classroom learning and practical investigation.

They develop their understanding of living organisms, cells, body systems and the environment, while learning how to plan investigations, collect evidence and draw conclusions.

Practical work helps students build confidence with scientific techniques from the outset, while encouraging them to question, investigate and explain the biological world around them.

YEAR 9 TO YEAR 11

As students progress towards GCSE, they explore Biology in greater depth, developing their understanding of areas including cell biology, human physiology, genetics, ecology and evolution.

Practical work remains an important part of learning, helping students connect biological theory with evidence and develop increasingly sophisticated skills in experimental design, data handling and evaluation.

By the end of Year 11, students have a strong foundation in both biological knowledge and scientific enquiry, preparing them well for further study.

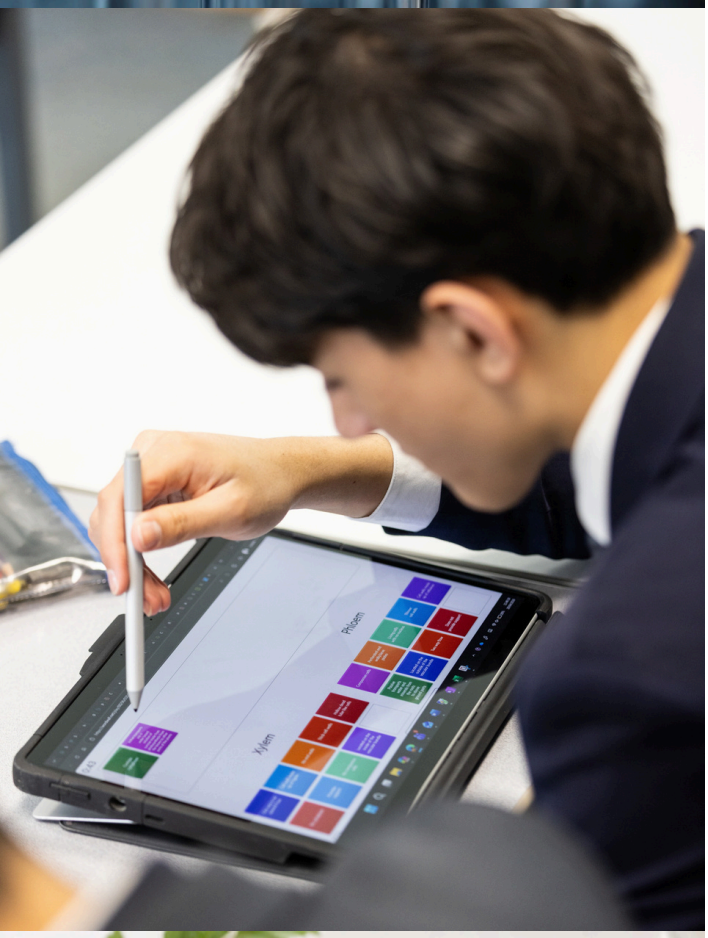














YEAR 12 & YEAR 13

At A-Level, students follow the Pearson Edexcel Biology A specification (9BI0), exploring a broad range of modern Biology with a strong human biology theme.

Topics include physiology, molecular biology, biochemistry, genetics and gene technology, ecology, evolution and animal behaviour.

Practical work is an integral part of the course, both in the laboratory and in the field. Students develop their skills in experimental design, data analysis, logical thinking and the interpretation of scientific evidence.

Assessment comprises three examinations at the end of the course, alongside the Practical Endorsement, which is assessed throughout Years 12 and 13.

A-Level Biology provides excellent preparation for university study and is particularly important for students considering Medicine and the Life Sciences.

BRINGING BIOLOGY TO LIFE

Biology at RGS is about investigating life, not simply learning about it.

Practical work gives students opportunities to test ideas for themselves, develop laboratory and fieldwork techniques and learn how biological evidence is gathered and evaluated.

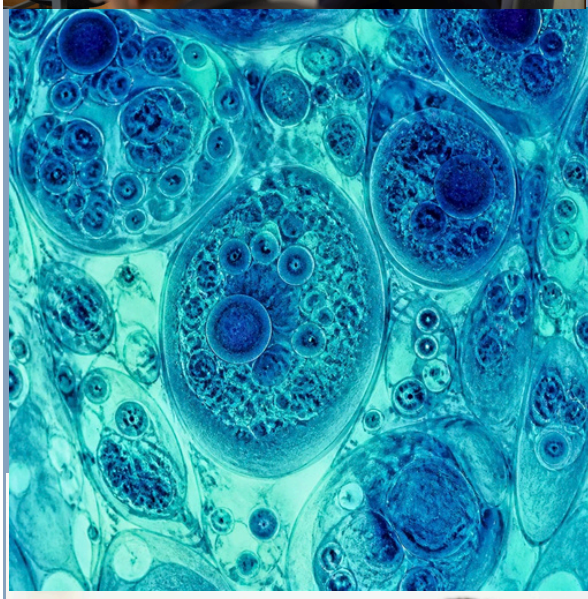
As students progress through the school, they become increasingly independent scientists, moving from guided experiments towards designing investigations, analysing complex data and evaluating the reliability of their results.

The scope of Biology also allows students to make connections between different areas of science, from the chemistry taking place within individual cells to the interactions that shape entire ecosystems.

This combination of knowledge, experimentation and critical thinking helps students understand not only what happens in living systems, but why.





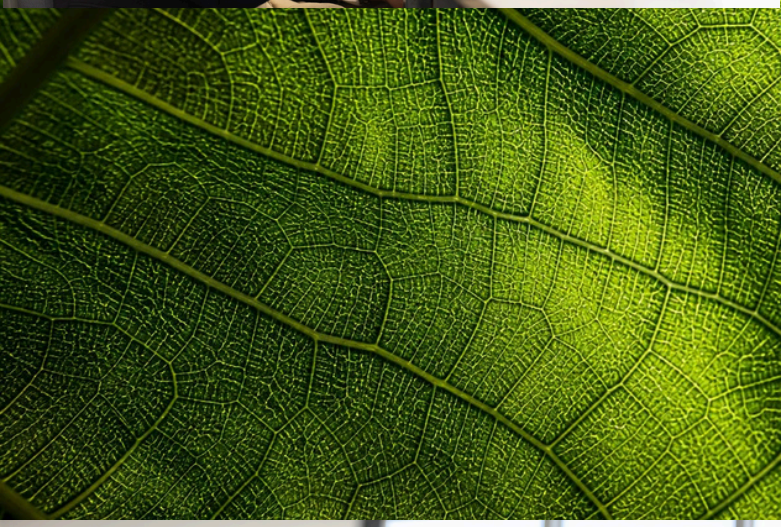














ACADEMIC SUPPORT & SUCCESS

The department has an excellent record of academic achievement.

A-Level Biology is a popular choice, and students are well prepared for competitive university courses.

Support is available through weekly help clubs and one-to-one support.

Sixth Form students also benefit from an extensive independent study programme designed to build the skills needed for higher education.

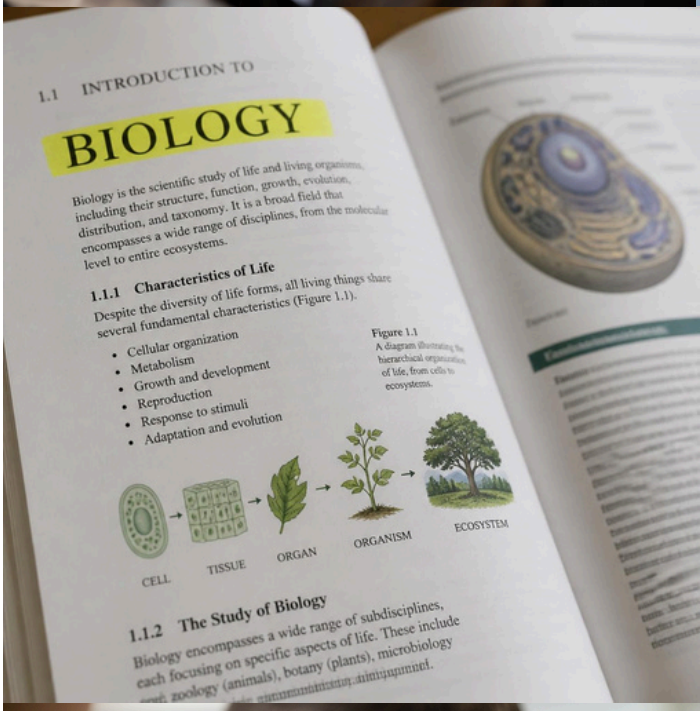
CO-CURRICULAR OPPORTUNITIES

Biology at RGS extends well beyond the classroom.

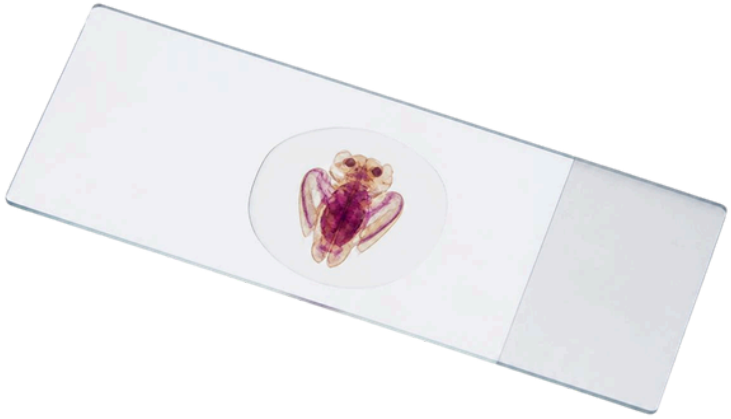
Various activities run throughout the year, for example, the CREST Award club and the Biology Society.

Students also take part in competitions and challenges such as the Cambridge Biology Challenge and the Royal Society of Biology Olympiad.









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From discovering how living organisms function in Year 7 to exploring genetics, physiology and ecosystems in the Sixth Form, Biology at RGS takes students on a journey from curiosity to scientific independence.

Students leave with a deeper understanding of the living world, confidence in practical science and the analytical skills to question evidence and tackle complex problems.

If you would like further information about Biology at RGS please contact Miss S Bunting, Head of Biology via s.bunting@rgs.newcastle.sch.uk

