

REVISED GCE AS & A LEVEL
Student Guide
Biology

For first teaching from September 2008

For first award of AS Level in Summer 2009

For first award of A Level in Summer 2010

biology

Student Guide: **Biology**

GCE Biology is a fascinating course providing students with opportunities to gain knowledge and understanding of molecules and cells, organisms and biodiversity, physiology and ecosystems, and biochemistry, genetics and evolutionary trends.

The **AS** (Advanced Subsidiary)/**A2** structure of this GCE means you can study for the **AS** Level award, completing units AS 1, AS 2 and AS 3 and then decide if you wish to continue to **A2** Level where you will complete the three additional units A2 1, A2 2 and A2 3. This will lead to an award for the **full Advanced GCE**.

Q. Why study GCE Biology?

This course is suitable if you wish to further your education in biology. You can take this course as a 1 year AS level course which would be beneficial for use with many subjects you would like to study in the future and it would also be beneficial in various careers. If you go on to study the full GCE (ie both the AS and A2 course) then it provides a good foundation for further study at university or for students going into the world of work.

Q. What do I need to be able to take this course?

You will need to have obtained a good standard at GCSE Science: Double Award, GCSE Science: Biology or other equivalent courses because the AS specification builds on the knowledge, understanding and skills developed within these subjects. The A2 specification builds on the knowledge, understanding and skills developed within the AS course. A good standard at GCSE Mathematics would also be beneficial if you plan to study GCE Biology.

Q. What will I study?

You will complete six assessment units in GCE Biology – three at AS Level and three at A2 Level.



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AS 1: Molecules and Cells	In this unit you will learn about Molecules, Enzymes, DNA Technology, Viruses, Cells, Cell Physiology and Continuity, leading to tissues and Organs.
AS 2: Organisms and Biodiversity	In this unit you will learn about transport and exchange mechanisms in plants and mammals, adaptation of organisms and biodiversity with an emphasis on local contexts.
AS 3: Assessment of Practical Skills in AS Biology	In this unit you will undertake two practical tasks. Each task will involve an experimental test of a prediction provided by your teacher. You will be assessed on implementing, recording and communication, interpretation and evaluation.
A2 1: Physiology and Ecosystems	In this unit you will learn about homeostasis, immunity, coordination and control in plants and animals and, ecosystems.
A2 2: Biochemistry, Genetics and Evolutionary Trends	In this unit you will learn about respiration, photosynthesis, DNA as the genetic code, and plant and animal kingdoms.
A2 3: Assessment of Investigational and Practical Skills in Biology	In this unit you will undertake a practical investigation. You will be assessed on developing a hypothesis, planning a procedure, planning for analysis, implementing, recording and communicating, analysis, interpretation and evaluation.

Q. How is this GCE Biology assessed?

There are six assessment units in GCE Biology, three at AS and three at A2 level. During the two year course you will complete a total of 7 hours of examinations as well as some practical tasks.

Unit	Type of Assessment
AS 1: Molecules and Cells Worth 40% of AS; 20% of A Level.	1 hour 30 minute external examination paper. <i>Available in January and summer series of examinations.</i>
AS 2: Organisms and Biodiversity Worth 40% of AS; 20% of A Level.	1 hour 30 minute external examination paper. <i>Available in January and summer series of examinations.</i>
AS 3: Assessment of Practical Skills in AS Biology Worth 20% of AS; 10% of A Level.	Internal assessment containing two practical tasks. <i>Available in the summer series of examinations.</i>
A2 1: Physiology and Ecosystems Worth 40% of A2; 20% of A Level.	2 hour external examination paper. <i>Available in January and summer series of examinations.</i>
A2 2: Biochemistry, Genetics and Evolutionary Trends Worth 40% of A2; 20% of A Level.	2 hour external examination paper. <i>Available in summer series of examinations.</i>
A2 3: Assessment of Investigational and Practical Skills in Biology Worth 20% of A2; 10% of A Level.	Internal assessment containing a practical investigation. <i>Available in the summer series of examinations.</i>

Q. What can I do with a qualification in Biology?

A GCE in Biology can lead you directly into the world of work or you could go on to undertake further study and have a successful career in a range of industries including: medicine (and related disciplines); dentistry; veterinary science; pharmacology; physiology; biomedical science and related industries; forensic science; education; research; accountancy; IT; agriculture; and management.

How can I find out more?

There are a number of ways that you can find out more about studying Biology.

These include:

- Teachers at your school or college
- Students who are already studying the subject
- www.ccea.org.uk/biology
- www.ase.org.uk
- www.iob.org
- Careers advisor
- UCAS www.ucas.com or CAO www.cao.ie for details on entry requirements for university courses

To view the full specification and the full range of support material available for GCE in Biology, please visit the Biology microsite www.ccea.org.uk/biology

