Make a Difference by Becoming a Biologist

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Overview

Biology is the study of life!

How do biologists make a difference?

What qualifications do I need?

How do I choose a degree?

Where can I get careers experience?

How can the Royal Society of Biology help me?
Biology is the study of life

That’s everything, from the very big to the very small

Treetops to ocean trenches, ecosystems to organ systems and dinosaurs to DNA…

Biologists work to solve the world’s biggest challenges, in almost every setting imaginable
You can make a difference

Animals, Sustainability, Food, Medicine, Sport, The Future, Policy, Communication
You could expand our understanding of animals in the wild and improve the well-being of domestic animals

- Studying animal behaviour and planning conservation practices
- Developing treatments to keep pets and livestock healthy
- Monitoring animals we rely on for food
- Researching diseases that can pass between animals and humans
You can help tackle the problems of a growing population and increased demand for food:

- Crop resistance to pests and drought
- Improving nutritional value of foods
- Developing allergen free alternatives
- Ensuring our food supplies are safe to eat
You can help athletes improve performance or play a vital role in patient recovery

– Measuring fitness levels
– Planning nutritional diets
– Developing personalised training programmes
– Using exercise as a means to prevent disease
You can help find ways of helping humans to live sustainably

- Analysing soil, water and air for chemical pollution
- Finding ways to clean up pollution
- Identifying, recording and monitoring the plants and animals that share the land we use
You can research what causes disease and help to develop new treatments

- Analysing blood, DNA, tissue or body fluids
- Interpreting test results
- Diagnosing diseases
- Advising on treatments
The Future

You can produce new and innovative technologies which could be closer than you think

- Analysing genomes to develop personalised medicine
- Developing biofuel technologies
- Growing organs from stem cells for transplantation
- Finding new ways to clean up pollution
You can advise policy makers on a variety of issues in UK Government:

- Preventing the spread of contagious infections
- Investigating the contribution that biology research makes to the economy
- Stopping the decline of UK honey bee populations
You can help take biology from the laboratory to the public

- Teaching biology to the next generation in the classroom
- Designing content for museum exhibitions
- Ensuring accurate science is in the media via blogs, newspapers, TV and radio
What qualifications do I need?

Most universities require two science subjects at A level (or Scottish Higher level)

Check the entry requirements for the types of degree you are interested in

Requirements will vary between courses so ensure you check before picking your A level or Higher subjects

Keep your options open!

Biology research is leaping forward with the help of maths

Maths is used for experimental design, carrying out research and analysing results but don’t panic…

It’s not a requirement for further study but a strong understanding of maths can be very useful!
You might want to think about:

- Specialised degrees
- Placement or Year Abroad options
- Joint or combined degrees
- Degree alternatives

Every degree is different so you need to consider what is right for you.

Talk to others about your interests in biology and the types of degree you might enjoy the most.

Degrees vary in content, duration and qualification you receive.
Where can I get careers experience?

It’s important to get real life experience of a biology related career

Working in a professional environment

Internships or work placements

Apply for places in industry, manufacturing, museums, research organisations and professional societies

Ask lecturers and professors if you could join them in their research

Studying biology teaches you:

- Critical thinking skills
- Time management & planning experience
- Innovation and creative thinking
- Valuable knowledge, skills and experience no matter your future career path
Some useful websites

- www.prospects.ac.uk
- https://nationalcareersservice.direct.gov.uk
- www.unistats.com
- www.futuremorph.org
How can the Royal Society of Biology help me?

The Royal Society of Biology is a single unified voice for biology and provides career guidance at all levels

• The society has 16,000 individual members, including
  – Academics
  – Industry
  – Graduates
  – Students
  – Interested amateurs
  – School children (14-19 year olds can join BioNet)

• Around 100 organisational members
Student careers support from the Royal Society of Biology

Careers information and guidance resources all available as pdf files online via:

www.rsb.org.uk/careers