My Learning
My Future

Where can studying Biology take you?

Highlighting the relevance of Biology to future careers and opportunities

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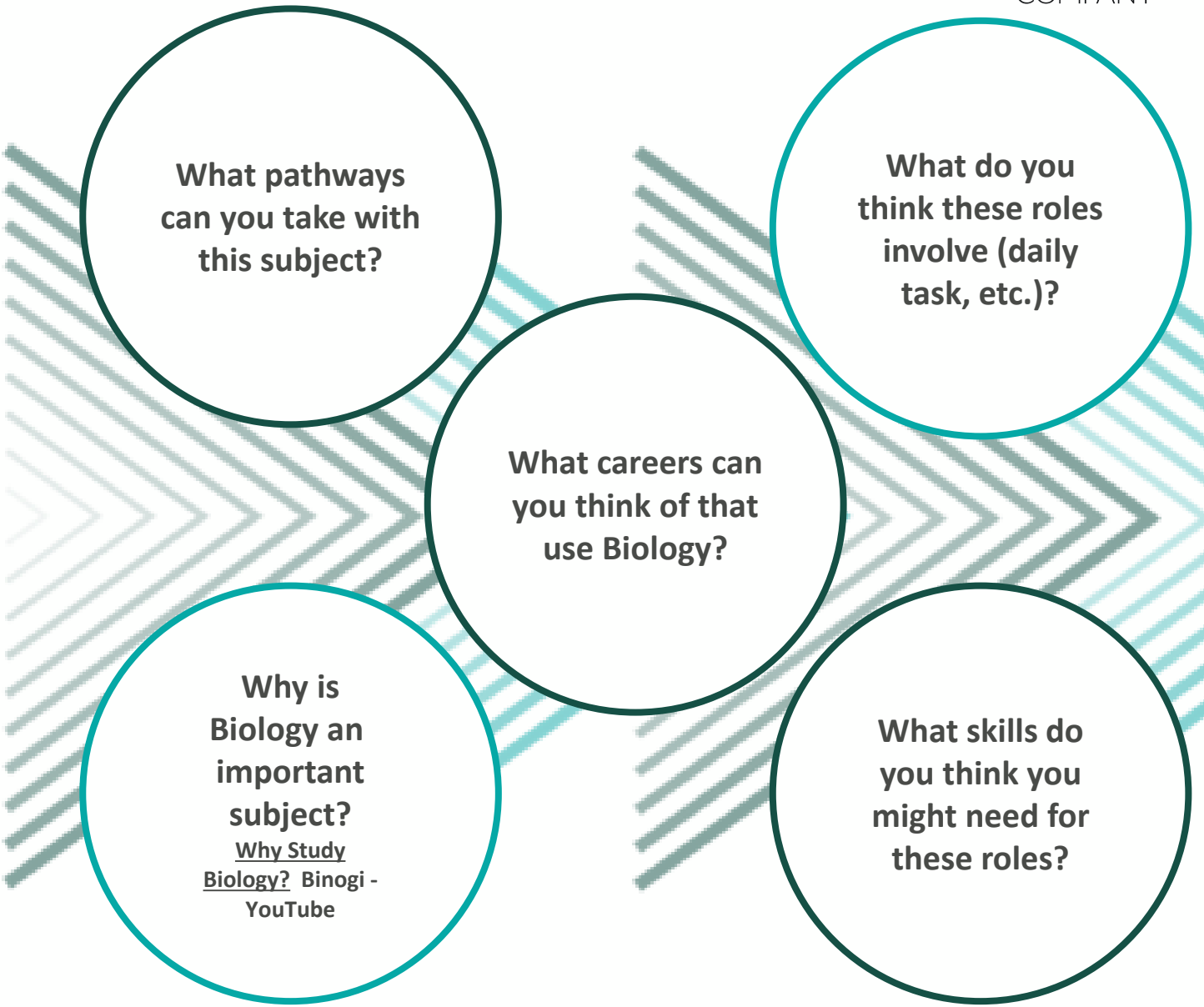
Why Biology matters

Have you ever considered where studying Biology can take you?

Today, we'll be exploring some of the career opportunities that are available to you, as well as the various pathways you can take to get there.



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Explore a career as a…

Here are some example roles and careers linked to

Biology

Paramedic

BBC Bitesize Video BBC Bitesize Video

NHS Case Study

Pharmacist

BBC Bitesize Profile

Critical Care Technologist

BBC Bitesize case study BBC Bitesize case study

BBC Bitesize jobs in Healthcare

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Explore a career as a…

Here are some example roles and careers linked to

Biology

Research Scientist

BBC Bitesize Profile

STEM Learning Case Study

Mental Health Nurse

BBC Bitesize Profile

NHS Case Study

Ecologist

BBC Bitesize Video

STEM Learning Case Study

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Discover more about the role

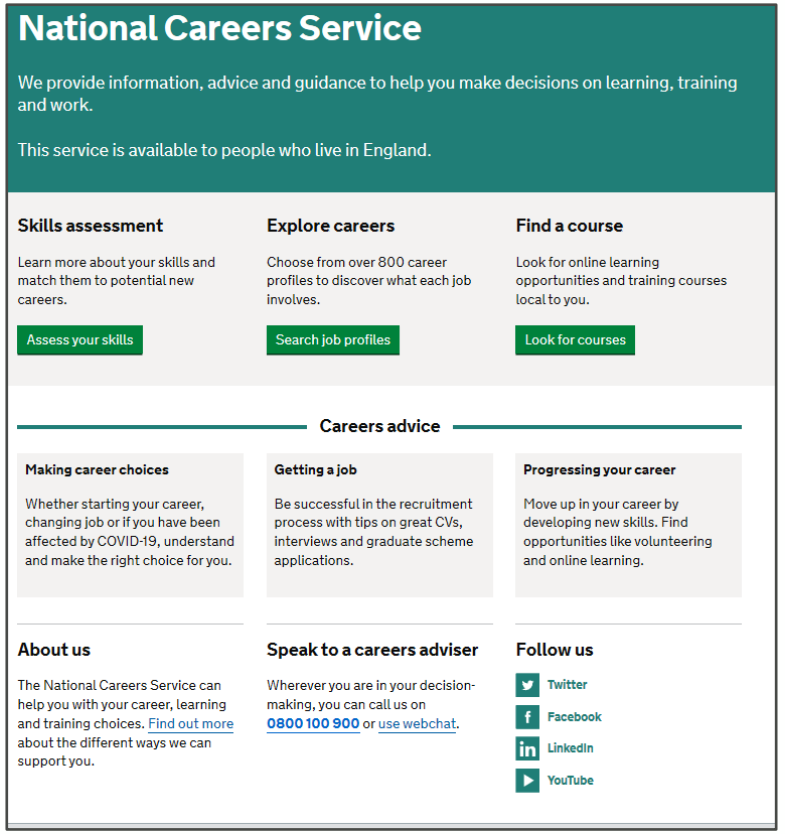
Explore careers using National Careers Service and find out about what jobs involve and how they are right for you

Includes:

- Average salary
- Typical hours
- Work patterns
- Pathways/How to become
- Essential Skills
- Daily tasks
- Career path and progression
- Current opportunities

Research Ideas:

Paramedic
Pharmacist
Critical Care Technologist
Research Scientist
Mental Health Nurse
Ecologist



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Teaching
Every Lesson Shapes a Life

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Why not teach Biology?

Start in the classroom, where you go from there is up to you. Bring your passion for your subject, keep learning, and pass your knowledge onto others

- No two days are the same – and neither are the pupils
- Once qualified you can teach throughout your life
- You could teach abroad
- Progress your career into leadership and management
- Bring your outside interests into the classroom and your subject

Why is STEM important?

- It boosts essential skills such as problem solving and curiosity
- It helps you see and understand the wider world around you
- It helps young people become future entrepreneurs

Explore teaching **The right skills to teach?**

Vjendra's Story

Every Lesson Shapes a Life

Love to keep learning?

Work well in a team?

What makes a great teacher?

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GCSE

While there are different routes you can take to be a teacher there are a few essential things that you will need:
• A minimum GCSE Grade 4 or above in English and maths (plus science if you want to teach primary)
A degree or equivalent qualification

A level

A levels are 2 years of study

T Level

T Levels are nationally recognised, technical qualifications for 16–19-year-olds. Designed by leading employers, one T Level is equivalent in size to 3 A levels

Vocational/Technical Qualification

These include BTEC, Applied General Qualifications (AGQ) and Vocational Technical Qualifications (VTQ) – all at Level 3

Apprenticeship

Apprenticeships are jobs which combine practical work and study. Intermediate is Level 2, Advanced is Level 3

Degree

Complete a degree course

It is possible to get QTS as part of an undergraduate degree, for example:

- Bachelor of Arts (BA) with QTS
- Bachelor of Education (BEd) with QTS
- Bachelor of Science (BSc) with QTS

Level 4/5 qualifications

Complete a L4/5 course and top up to a degree – L4/5 includes Certificate of HE, Diploma of HE, Higher Technical Qualification (HTQ), HNC, HND and Foundation degrees

Top up to a degree (Level 6) in a year of full-time study

Higher apprenticeships

Higher level apprenticeship (foundation degree / Level 5)

Degree apprenticeships

Degree apprenticeship
(Level 6-7). There is a Level 6 Teaching apprenticeship programme

Initial Teacher Training (ITT) with qualified teacher status (QTS)

Teacher

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Why not teach activity?

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- Pick a topic in Biology you think you would like to try and teach
- Agree your choice of topic with your teacher and the length of session (and with which group)
  (It may be the perfect opportunity to try this with a younger class lower down the school, or as a transition activity for Y6)
- Plan a short activity to cover the topic in a way you feel will be engaging and memorable for your peers as part of a lesson starter, main activity or plenary

Consider:

- What are you trying to achieve (teach)? Be clear what information you intend to impart
- How will you make it fun? How will you make it 'stick'? How long will this take?
- What type of activity will you plan for? (written/practical)
- How will you know others have learned it?
- How will you make sure everyone is stretched and challenged?
- What will the end-product be?

Once you have checked it with your teacher, try the lesson with a small group (as agreed by your teacher)
Try and get feedback during and after the session from those in the lessons and from the teacher

After, consider:

- What you enjoyed about the experience
- Whether this is something, with training, you would enjoy
- How you felt when others learned from you

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5| Non-obvious subjects using Biology: Ever thought about..?

- How to become an Orthotist: Karrie's story
- How to become a Science Journalist: Rosie's story
- How to become an Interpretation Officer: Chris's story
- Careers ideas and information - Science
- Agronomist | National Careers Service
- Biotechnologist | National Careers Service
- Oceanographer | Explore careers | National Careers Service

BBC Bitesize

icould

National Careers Service

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MYPATH Job of the week (Biology)

- Marine Biologist
- Water Quality Scientist
- Zookeeper

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MYPATH Science: Why bother?

Biology:

Cell Biology

Organisation

Infection and Response

Bioenergetics

Homeostasis

Inheritance, Variation & Evolution

Ecology

Photosynthesis

Please be aware MYPATH may add new videos so keep checking here for additions

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Biology careers in a changing world: How can I future-proof my career pathway?

Sustainability means meeting our own needs without compromising the ability of future generations to meet their own needs.
(UN definition)

The world will be changing drastically in the next few years to cope with the impacts of climate change and nature loss, and the need to lower greenhouse gas emissions and unsustainable practices. How might this steer your choice of career path using your Biology skills?

SUSTAINABLE FUTURES

WWF | Villiers Park Educational Trust | Founders4Schools

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Biology careers in a changing world

Every career can be sustainable

1. Use your skills and passion for sustainability to help businesses adapt
2. Work for a company with sustainable values
3. Innovate for a sustainable future

- Marine Biologist
- Ecologist
- Engagment and Training Assistant

SUSTAINABLE FUTURES

WWF | Villiers Park Educational Trust | Founders4Schools

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A spotlight on Technicians using Biology

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6 |

Discover here how the technical jobs related to Biology keep industries moving and the real difference technicians make in our lives.

R023 Research Laboratory Technician

R045 Aquaculture Technician

R015 Bioinformatics Technician

R096 Veterinary Nurse

GATSBY

Technicians
We make the difference

Find further resources here

Visit the Gallery here

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A spotlight on Technicians using Biology

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6 |

Discover here how the technical jobs related to Biology keep industries moving and the real difference technicians make in our lives.

R101 Hospital Laboratory Technician

R042 Environmental Technician

R053 Horticultural Technician

R058 Healthcare Laboratory Technician

GATSBY

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GET THE JUMP SKILLS FOR LIFE

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7| Biology Pathways

Combine Study and Work

Study

Work

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7| Combine Study and Work

Apprenticeships

- Nurse
- Laboratory Scientist
- Ecologist
- Marine Biologist
- Adult Care Worker
- Early Years Assistant
- Dental Nurse
- Optical Assistant
- Healthcare Assistant
- Childcare Assistant

Find more >

T Levels

T Levels | National Careers Service
Education and Childcare | T Levels
Health| T Levels
Healthcare Science| T Levels
Science| T Levels
Animal Care and Management | T Levels
Agriculture, Land Management and Production | T Levels

VTQs

Vocational Technical Qualifications (VTQs) | National Careers Service

- Science
- Applied Science
- Land based

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7 | Study Pathways

HTQs (Higher Technical Qualifications)

Higher technical qualifications (HTQs) | National Careers Service

You might find courses in:

- Molecular Biology
- Biological Scientist
- Biochemist
- Biophysicist
- Animal Science
- Forestry and Arboriculture
- Plant Science
- Environmental Science and Biology
- Zoology

A levels

A levels | National Careers Service

You might find courses in:

- Biology
- Science

Higher education

Higher education | National Careers Service
You can explore undergraduate courses in Biology

You might find courses in:

- Biology
- Human Biology
- Molecular Science
- Animal Science
- Environmental Science

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7 | Work Pathways

Supported internships with an education, health and care plan

Supported internships | National Careers Service

Watch Saul's story

You might read about:

- Access to Work Funding (if you have a disability or health condition)
- Preparing for Adulthood
- Talking Futures (A parents' toolkit for career conversations)

School leaver schemes

School leaver schemes | National Careers Service

You might read about:

- How to fill in an application form
- How to write a CV
- Interview help
- Progressing your career (Careers Advice from NCS)

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Complete University Guide

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7 | University League Tables

See at a glance the university ranking for Biology

Biology Rankings (thecompleteuniversityguide.co.uk)

Filter by:

- Overall score
- Entry standards
- Student satisfaction
- Research quality
- Research intensity
- Graduate prospects

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Discover Uni

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Discover Uni

Have you ever considered if higher education is right for you?

1.Go to https://discoveruni.gov.uk/

2. Search for a course or subject
(You should get a page of search results, you can filter these by university or college, whether you want to study full or part time or perhaps you want to see that courses are near you)

Once you have had a look at a few different courses and subjects now it is time to compare some side by side

3. Check out this video which shows you how to use our comparison tool https://youtu.be/dBFzCQgTp8I - Pick 5 courses and add these as a saved course and then you can compare

4. Once you have your chosen five side by side, try to answer the following questions:

a. What kinds of qualifications do students on the course have when they start the course?

b. How many have a placement year?

c. How many courses let you study abroad?

d. Which has the highest student satisfaction rating? How do you know this?

e. What kinds of job do graduates from this course go on to?

f. Which course has the highest salary after three years? (higher/lower than national average)

g. Choose your favourite course and explain why you chose this course over the others?

discoveruni@officeforstudents.org.uk

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4. Once you have your chosen five side by side, try to answer the following questions:

a. Is the data I am looking at for a course or a subject?
b. What year, or years, does the data relate to?
c. How many students or graduates is this data based on?
d. Does the data represent all the students on the course or subject area?
e. Does the data include people like me?
f. What factors might impact the data?

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1 |

In 10 years time

Job in 10 years time (related to Biology):

_____

What GCSEs helped you get this job:

_____ _____ _____ _____ _____ _____

What KS5 Pathways choice did you make and what did you study:

Apprenticeship T level A Level other L3 equivalent

_____

Post 18 pathways choices did you make: explain:

Study & Work Study Work

_____

Essential skills used in the job:

_____

Progression route:

_____

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2 |

My local option

Subject chosen (related to Biology):

_____

Local college options:	Local apprenticeships options:	Other options:
_____	_____	_____
_____	_____	_____

The pros and cons of these options for me:

Pros:	**Cons:**
_____	_____

Consider how these will apply and explain:

Cost _____

Travel _____

Convenience _____

Aspirations _____

Personal circumstances _____

Other _____

Final choice – justify:

_____

Next steps:

_____

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3 | Prepare a 3 - 5-minute talk to share with a small group on any role that interests you related to Biology

- What's the role
- Where has the interest come from
- What do you need to do to become one
- Where can you go to study and what level of study
- Where do you need to go to carry out the role
- What's the chances of getting this role
- Who do you look up to in this role
- What might a typical day look like

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4 |

My career path

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Skills Builder PARTNERSHIP

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8 |

Essential Skills

Here are three key skills needed for a career that uses Biology

	Video	Skills Builder Resource KS3	Skills Builder Resource KS4	Skills Builder Resource Post 16
The ability to use tactics and strategies to overcome setbacks and achieve goals	Watch here	Short Lesson Staying Positive St ep 6-8	Short Lesson Staying Positive Step 8-10	Short Lesson Staying Positiv e Step 10-12
The ability to set clear, tangible goals and devise a robust route to achieving them	Watch here	Short Lesson Aiming High Step 6-8	Short Lesson Aiming High Step 8-10	Short Lesson Aiming High Step 10-12
The ability to find a solution to a situation or challenge	Watch here	Short Lesson Problem Solving Step 6-8	Short Lesson Problem Solving Step 8-10	Short Lesson Problem Solving Step 10-12

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	Staying Positive	I can do this
Step 6	I keep trying when something goes wrong and encourage others to keep trying too	
Step 7	I look for opportunities in difficult situations	
Step 8	I look for opportunities in difficult situations, and share these with others	
Step 9	I look for opportunities in difficult situations, and adapt plans to use the opportunities	
Step 10	I look for opportunities in difficult situations, and create new plans to use the opportunities	
Step 11	I identify risks and gains in opportunities	
Step 12	I identify risks and gains in opportunities, and make plans to manage them	

My Strength (s)	My area (s) of Development

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	Aiming High	I can do this
Step 6	I set goals informed by understanding of what is needed	
Step 7	I set goals, ordering and prioritising tasks to achieve them	
Step 8	I set goals and the right resources to achieve them	
Step 9	I set goals and plan to involve others in the best way	
Step 10	I create plans that are informed by my skill set and that of others	
Step 11	I create plans that include clear targets to make progress tangible	
Step 12	I create plans that are informed by external views, including constructive criticism	

My Strength (s)	My area (s) of Development

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	Problem Solving	I can do this
Step 6	I explore complex problems by identifying when there are no simple technical solutions	
Step 7	I explore complex problems by building my understanding through research	
Step 8	I explore complex problems by analysing the causes and effects	
Step 9	I create solutions for complex problems by generating a range of options	
Step 10	I create solutions for complex problems by evaluating the positive and negative effects of a range of options	
Step 11	I analyse complex problems by logical reasoning	
Step 12	I analyse complex problems by creating and testing hypotheses	

My Strength (s)	My area (s) of Development

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