



My Learning My Future

Where can studying Computer Science/IT take you?

Highlighting the relevance of name of subject to future careers and opportunities



My Learning
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THE CAREERS &
ENTERPRISE
COMPANY

Why Computer Science/IT matters

Have you ever considered where studying Computer Science/IT 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.

What pathways can you take with this subject?

What do you think these roles involve (daily task, etc.)?

What careers can you think of that use Computer Science/IT?

Why is Computer Science/IT an important subject?

How will IT help me? -
MYPATH

What skills do you think you might need for these roles?



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Explore a
career as a...

Here are some
example roles and
careers linked to
Computing and IT



Cyber Security Intelligence Officer

BBC Bitesize case study

iCould case study



UX/User Experience
Designer

BBC Bitesize case study



Software Developer/ Engineer

BBC Bitesize case study

BBC Bitesize case study

BBC Bitesize case study



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Explore a
career as a...

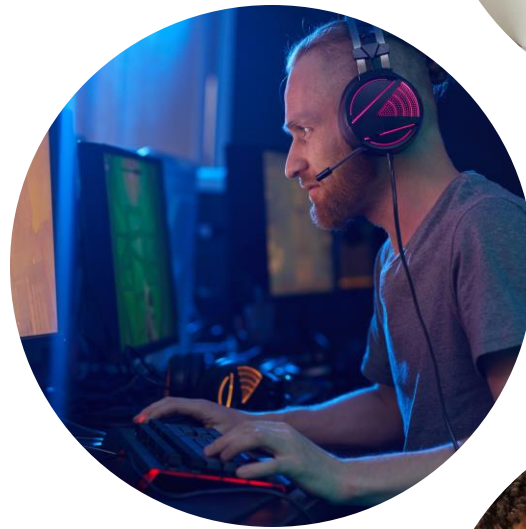
Here are some
example roles and
careers linked to
Computing and IT



Youtuber/Vlogger

BBC Bitesize case study

BBC Bitesize case study



Computer Games Developer

BBC Bitesize case study

BBC Bitesize case study

BBC Bitesize case study



Systems Analyst/
Engineer

BBC Bitesize case study



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:

- Cyber Security Intelligence Officer
- UX User Experience Designer
- Software/Web Developer
- Youtuber/Vlogger
- Computer Games Developer
- Systems Analyst/Engineer

National Careers Service

We provide information, advice and guidance to help you make decisions on learning, training and work.

This service is available to people who live in England.

Skills assessment

Learn more about your skills and match them to potential new careers.

[Assess your skills](#)

Explore careers

Choose from over 800 career profiles to discover what each job involves.

[Search job profiles](#)

Find a course

Look for online learning opportunities and training courses local to you.

[Look for courses](#)

Careers advice

Making career choices

Whether starting your career, changing job or if you have been affected by COVID-19, understand and make the right choice for you.

Getting a job

Be successful in the recruitment process with tips on great CVs, interviews and graduate scheme applications.

Progressing your career

Move up in your career by developing new skills. Find opportunities like volunteering and online learning.

About us

The National Careers Service can help you with your career, learning and training choices. [Find out more](#) about the different ways we can support you.

Speak to a careers adviser

Wherever you are in your decision-making, you can call us on [0800 100 900](tel:0800100900) or [use webchat](#).

Follow us

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- [LinkedIn](#)
- [YouTube](#)



Why not teach Computer Science/IT?

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?



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



- Pick a topic in Computer Science/IT 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



Non-obvious jobs using Computer Science/IT: Ever thought about..?

➤ [How to become a Trainee Business Analyst: Megan's story](#)

➤ [How to become a Senior systems Engineer: Ben's story](#)

➤ [How to become a Gaming Company Director: Mike's story](#)

➤ [Careers ideas and information - Computing](#)

➤ [Geospatial Technician | Explore careers | National Careers Service](#)

➤ [Robotics Engineer | Explore careers | National Careers Service](#)

➤ [Test Lead | Explore careers | National Careers Service](#)

 BBC
Bitesize

<https://www.bbc.co.uk/bitesize/articles/zhst2sg>



 National
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MYPATH Job of the week (Computer Science/IT)



Intelligence Analyst



IT Technician



Financial Advisor





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Computer Science/IT careers in a changing world: How can I future-proof my career pathway?

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 Computer Science/IT skills?

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



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Computer Science/IT careers in a changing world



Climate Scientist



Sustainable Software Engineer



Co Founder (Food Waste App)



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A spotlight on Technicians using Computing/IT

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6 |



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

R006
CNC
Technician

R012
Automation
Engineering
Technician

R019
Building
Design
Technician

R055
Electrician

R057
Animation
Technician

R081
ROV Pilot
Technician



GATSBY



Technicians
We make the
difference

[Visit the Gallery here](#)

[Find further resources here](#)



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A spotlight on Technicians using Computing/IT

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

R049
Games
Designer

R050
Gaming
Audio
Technician

R075
Post
Production
Technician

R091
Power
Networks
Technician

R097
Logistics
Technician

R031
Cyber
Security
Technician



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R032
Data
Technician

R056
IT
Technician

R084
Smart Home
Technician

R085
Software
Developer

R086
Software
Tester



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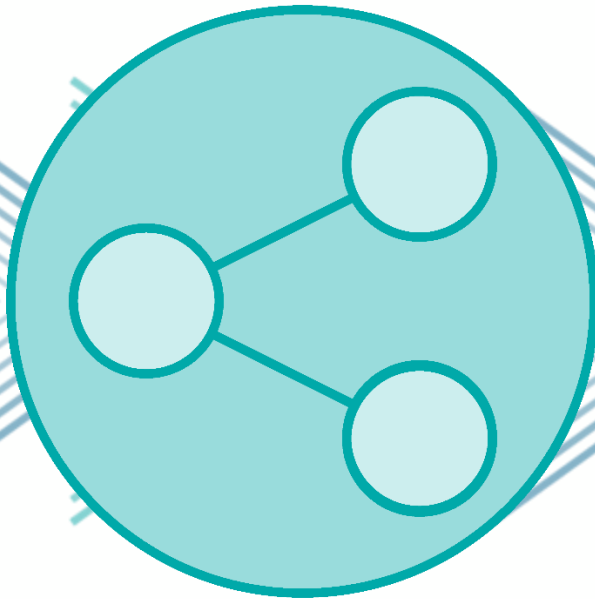


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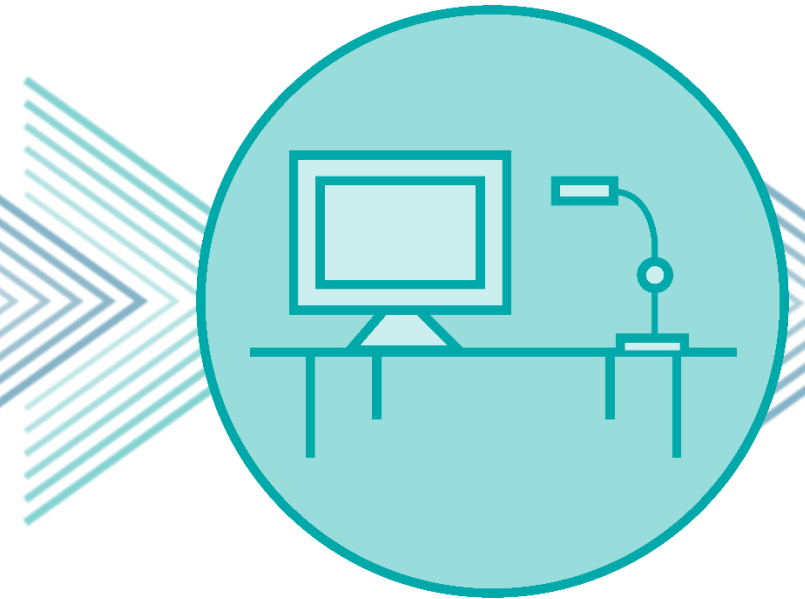
7 | Computer Science/IT Pathways



Combine Study
and Work



Study



Work



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7 | Combine Study and Work

Apprenticeships

- Applications Support Lead
- AI Data Specialist
- Network Manager
- Digital Community Manager
- Cyber Security Analyst
- Software Developer
- Creative Digital Design Professional
- Network Cable Installer
- Game Programmer
- Network Engineer
- Digital Accessibility Specialist

T Levels

- T Levels | National Careers Service
- Design, Surveying and Planning for Construction
- T Levels | Digital Production, Design and Development
- T Levels | Design and Development for Engineering and Manufacturing

- T Levels | Digital Business Services
- T Levels | Engineering, manufacturing, Processing and Control
- T Levels | Maintenance, Instillation and repair for Engineering and Manufacturing
- T Levels | Management and Administration
- T Levels | Media, Broadcast and Administration

VTQs

Vocational Technical Qualifications (VTQs) | National Careers Service

- Computer Science and ICT
- Digital Technologies
- Computing
- Creative Digital Media Production
- Creative Media Practice
- Information Technology
- ESports
- Spreadsheet Processing Techniques
- ICT Systems and Principles
- Communications Cabling and Networks



[Find more >](#)



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7 | Study Pathways

HTQs (Higher Technical Qualifications)

Higher technical qualifications (HTQs) | National Careers Service

You might find courses in:

- Digital Technologies
- Computing Forensics & Security
- Cloud Computing
- Creative Media Production
- Mechatronics and Robotics
- Computing: Cybersecurity and Ethical Hacking
- Games Production
- Cyber Security and Computer Systems

A levels

A levels | National Careers Service

You might find courses in:

- Computer Science
- Computer Science and ICT
- ICT
- Applied ICT
- Statistical Problem Solving using Software Statistics

Higher education

Higher education | National Careers Service

You can explore undergraduate courses in Computer Science/IT

You might find courses in:

- Computer Science
- Information Systems
- Software Engineering
- Artificial Intelligence
- Health Informatics
- Virtualisation and Cloud Computing
- Programming Languages
- Ethical Hacking
- Application and Web Development
- Networking and Operating Systems
- Algorithms and Modelling





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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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7 | University League Tables

See at a glance the university ranking for Computer Science/IT

[Computer Science Rankings \(thecompleteuniversityguide.co.uk\)](https://thecompleteuniversityguide.co.uk/computer-science-rankings)

[Information Technology & Systems Rankings \(thecompleteuniversityguide.co.uk\)](https://thecompleteuniversityguide.co.uk/information-technology-rankings)

Filter by:

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





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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?



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

Is the data I am looking at for a course or a subject?

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



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In 10 years time...

**Job in 10 years time (related to
Computer Science/IT):**

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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Subject chosen (related to Computer Science/IT):

Local college options:

Local apprenticeships options:

Other options:



My local 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:



3 |



Prepare a 3 - 5 minute talk to share with a small group on any role that interests you related to Computer Science/IT



What's the role?



Where do you need to go to carry out the role?



Where has the interest come from?



What's the chances of getting this role?



What do you need to do to become one?



Who do you look up to in this role?



Where can you go to study and what level of study?



What might a typical day look like?



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My career path....





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Essential Skills

Here are three
key skills
needed for a
career that
uses

Computer
Science/IT



	Video	Skills Builder Resource KS3	Skills Builder Resource KS4	Skills Builder Resource Post 16
The oral transmission of information or ideas	Watch here	Short Lesson Speaking Step 6-8	Short Lesson Speaking Step 8-10	Short Lesson Speaking Step 10-12
The receiving, retaining and processing of information or ideas	Watch here	Short Lesson Listening Step 6-8	Short Lesson Listening Step 8-10	Short Lesson Listening 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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8 |



	Speaking	Tick which apply
Step 6	I speak effectively by using appropriate tone, expression and gesture	
Step 7	I speak engagingly by using facts and examples to support my points	
Step 8	I speak engagingly by using visual aids to support my points	
Step 9	I speak engagingly by using tone, expression and gesture to engage listeners	
Step 10	I speak adaptively by changing my language, tone and expression depending on the response of listeners	
Step 11	I speak adaptively by planning for different possible responses of listeners	
Step 12	I speak adaptively by changing my content depending on the response of listeners	

My Strength (s)

My area (s) of Development



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	Listening	Tick which apply
Step 6	I show I am listening by how I use eye contact and body language	
Step 7	I show I am listening by using open questions to deepen my understanding	
Step 8	I show I am listening by summarising and rephrasing what I have heard	
Step 9	I am aware of how a speaker is influencing me through their tone	
Step 10	I am aware of how a speaker is influencing me through their language	
Step 11	I listen critically and compare different perspectives	
Step 12	I listen critically and think about where differences in perspectives come from	

My Strength (s)

My area (s) of Development



8 |



	Problem Solving	Tick which apply
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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Homework



Where can studying Computer Science/IT take you?

Name: _____ Tutor group: _____

O	D	W	S	X	Z	N	K	A	E	V	N	V	M	I	U	F	V	M	X	F	L	R	L	S	P	U	K	Z	O
V	D	U	L	A	C	C	O	U	N	T	I	N	G	T	E	C	H	N	I	C	I	A	N	O	R	V	D	S	O
E	N	Y	W	E	B	D	E	V	E	L	O	P	E	R	G	G	B	F	S	R	A	D	V	W	G	V	D	M	L
Z	H	F	C	L	L	I	S	S	J	X	R	Y	B	D	X	S	S	M	K	E	R	K	B	S	Y	K	A	H	O
Q	L	F	J	D	L	J	F	O	R	E	N	S	I	C	C	O	M	P	U	T	E	R	A	N	A	L	Y	S	T
C	B	A	M	Y	O	G	R	A	P	H	I	C	D	E	S	I	G	N	E	R	I	V	U	A	C	B	S	Y	N
D	Q	C	R	G	I	W	D	J	N	A	H	K	E	T	M	M	O	Y	R	O	Q	Q	Z	L	Q	I	O	H	S
W	I	H	J	T	B	M	V	C	D	U	O	G	S	O	M	Q	D	E	C	I	O	N	D	A	K	W	N	Q	Q
Q	Z	H	W	R	E	Q	R	A	B	C	G	R	J	L	D	D	I	Y	B	N	V	M	E	M	Y	D	I	F	H
Z	E	Z	E	M	N	D	V	G	J	B	Y	U	Q	C	B	V	R	F	C	Z	W	B	Y	L	C	U	D	V	V
X	N	H	M	S	C	Y	I	H	M	W	X	S	E	C	R	E	T	A	R	Y	I	X	Y	W	D	T	F	K	C
I	R	H	Y	G	F	K	X	T	G	O	B	S	K	A	L	M	N	Q	I	X	A	D	N	E	I	E	R	Z	D
B	T	I	J	P	S	S	D	P	O	P	A	G	I	F	R	T	K	D	N	I	M	L	J	M	K	H	K	Z	D
C	P	P	C	N	L	T	F	F	S	R	C	R	H	H	W	Y	P	B	P	V	L	U	E	Q	J	N	S	S	
V	Z	H	R	I	C	Y	B	E	R	I	N	T	E	L	L	I	G	E	N	C	E	O	F	F	I	C	E	R	S
A	N	Z	X	O	T	X	L	M	N	S	B	W	A	E	P	L	X	I	S	O	N	J	I	K	M	E	X	B	N
K	T	V	I	O	J	H	J	Y	R	I	R	J	Z	G	B	D	T	J	I	C	G	X	Q	P	T	F	R	E	P
L	O	S	Z	K	Z	E	C	Y	F	O	L	X	F	M	F	A	A	F	O	C	G	G	T	U	O	Y	G	M	D
F	O	J	O	P	F	J	C	G	T	S	Y	Z	D	D	X	F	Y	L	X	U	S	P	O	O	R	O	X	I	S
U	K	M	T	L	Q	V	A	T	A	B	H	A	D	Z	G	I	H	O	Y	D	I	N	W	D	A	L	U	N	Q
A	S	A	H	B	I	O	Z	H	M	M	G	N	H	X	E	W	D	W	R	T	J	G	G	C	Q	T	Z	E	X
G	L	H	V	I	J	C	A	J	G	A	S	B	K	H	A	V	I	K	W	L	I	A	A	E	U	B	E	K	T
Q	K	O	B	J	B	B	I	A	Y	R	N	Z	O	E	M	W	E	P	I	B	G	L	T	F	X	O	V	X	G
H	N	U	D	Z	H	T	W	T	E	A	B	A	G	Z	U	K	T	W	W	E	N	D	Z	E	S	C	D	H	W
E	Q	N	O	D	U	T	K	W	O	V	P	X	G	T	A	A	P	H	V	H	R	I	M	A	R	R	K	C	H
I	C	A	V	A	W	R	N	M	N	R	C	E	A	E	Z	W	A	H	G	T	D	Z	P	L	H	W	P	N	R
Q	V	W	T	S	L	B	U	V	U	X	X	I	M	C	R	T	S	C	Q	I	Q	Z	K	K	Q	Y	I	T	Q
T	Y	K	I	Z	X	R	Q	J	L	P	Y	B	F	N	J	W	U	N	N	R	O	U	Y	E	B	Q	K	M	C
T	D	I	E	C	V	M	P	J	O	L	D	J	Q	B	K	P	U	X	B	U	D	V	G	Y	E	E	L	D	Y
H	G	D	H	S	L	P	X	D	R	W	G	L	Y	C	N	F	D	X	T	M	W	N	L	H	P	I	C	F	Y

IT Project Manager | Forensic Computer Analyst | Web Developer | Graphic Designer
Cyber Intelligence Officer | Secretary | Accounting Technician | Art Editor | Solicitor

From the 11 jobs in the wordsearch on the other side, research 4 of them and complete the information below.

Use the [National Careers Service](#) website to help. You can use their 'job profiles'.

Job role: _____

Entry requirements you might need for this job: _____

What it takes to do this job: _____

Careers path and progression: _____

Average salary/wages: _____

Job role: _____

Entry requirements you might need for this job: _____

What it takes to do this job: _____

Careers path and progression: _____

Average salary/wages: _____

Job role: _____

Entry requirements you might need for this job: _____

What it takes to do this job: _____

Careers path and progression: _____

Average salary/wages: _____

Job role: _____

Entry requirements you might need for this job: _____

What it takes to do this job: _____

Careers path and progression: _____

Average salary/wages: _____

Explore careers

Find out what a job involves and if it's right for you.

Use the National Careers Service Explore careers tool to research for this homework

[Explore here](#)



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