COMPUTER SCIENCE

LINKING COMPUTER SCIENCE WITH CAREERS

2019/20

ROYAL AIR FORCE
REGULAR & RESERVE

ABOUT SUCCESS AT SCHOOL

Success at School is a national careers website for students aged 11-19, as well as their teachers, careers advisors, parents and other influencers. Young people can learn about their future career options through no-nonsense careers advice related to their own experiences.

As well as covering topics such as career paths, industries, apprenticeships, university and employability skills, we connect schools and students to employers and universities through opportunities on our site and our interactive forums. Millions of young people and their influencers have visited our site for advice and information to help them plan for the future.

Go to **successatschool.org** for more information.

ABOUT OUR SPONSOR

The Royal Air Force is an organisation that makes a difference. Whether it's in the skies above Britain or in airspace around the world, it is our job to protect the United Kingdom against any form of threat.

Our aircraft aren't our only line of defence. In the 21st century, cyberspace and communications have become just as important to help fulfil this role. The RAF needs these skills more than ever before. We look for people who are passionate and excited about being part of a bigger organisation. Everyone in every role is vital to keeping our aircraft ready and flying 24 hours a day, 7 days a week.

We have more than 20 different apprenticeship opportunities – and not just in IT and communications roles. We offer a guaranteed contract of employment from the moment you start your first day of training.

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FOREWORD

As you approach the important decision of which subjects to study in the next phase of your education, central to your thinking should be the role you eventually want to fill in the world of work, the type and level of qualifications you need to support this ambition and the best route for you to achieve them. However, don't forget to consider which subjects most excite you, because most of us do best when studying the things we enjoy.

There are many important life questions you may not know the answers to right now, but this booklet aims to make those relating to your education easier to address. Do you want to go on to do A-levels, and then a degree? Does the career path you're interested in require this? Is there an apprenticeship available to attain the skills you need?

Skills in computer science are now as important as those in maths and English, and the need for computer literacy in the 21 st century can only increase if we are to match the pace of digital change and technological innovation. What you study over the next few years will shape your career opportunities, and what you achieve in those studies will form a large part of how your future employer assesses you. This is certainly true for the Royal Air Force (although we also expect applicants to have a sense of adventure and an enthusiasm for challenge!), and like many employers we offer a wide range of routes into employment, including entry direct from school aged 16, paid apprenticeships and sponsored degree-level entry.

The next few pages will explain how computer science skills and qualifications can lead to exciting employment opportunities in the UK and abroad. I hope this knowledge will inspire you to push yourself to your limits and I wish you the best of luck and great success wherever your educational journey takes you.

Group Captain Will Dole

Head of Recruitment & Selection, Royal Air Force
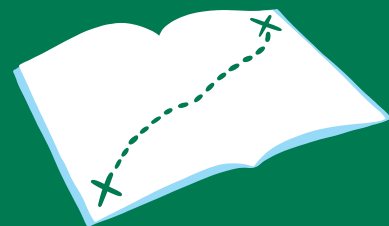
WHAT IS COMPUTER SCIENCE?

Computers govern every aspect of our lives, from the algorithms that control traffic lights to the global networks that allow us to access the internet. The hardware we use has developed too. Your laptop, smartphone and tablet all rely on complex computer programmes to work.

HOW WILL COMPUTER SCIENCE PREPARE ME FOR WORK?

Five workplace skills you'll learn in computer science

PROBLEM SOLVING

In school: Computers need specific and detailed instructions to successfully complete a task.

At work: User experience (UX) professionals look for problems in programmes and applications,

MATHEMATICAL SKILLS

In school: Mathematical principles are essential to computer programming. You'll practice binary

At work: If you want to work in software engineering or development, you'll need these fundamental

DATA ANALYSIS

In school: We create a vast amount of digital data. Capturing and storing this data is an essential part

At work: More and more jobs require an in-depth understanding of data analysis. Marketers need to

CREATIVITY

In school: Creativity and problem solving go hand in hand. Sometimes you'll need to think creatively

At work: If you move into game design you'll need to use your creative flair to programme

LOGICAL THINKING

In school: Computers rely on logic to run and you need to learn how to think 'algorithmically'.

At work: Breaking problems down into a series of logical steps to solve can help in a range of jobs.

...and two you may not have thought of

ETHICAL AWARENESS

In school: The introduction of AI throws up a host of ethical questions. This includes whether machines

At work: Computers offer great potential but there are also concerns about technology in our

LEGAL ACUMEN

In school: We face new legal challenges due to computers. Data protection is a hot topic, but you'll

At work: If you work in cyber security, you'll need a good understanding of the laws governing data

EMPLOYEE

Five ways your computer science know-how will help you at work

KNOWLEDGE	HOW WILL IT HELP ME AT WORK?
Understand and use a range of programming concepts. This includes how programming	This knowledge is fundamental in any programming role,
Learn what is meant by 'big data' and why it presents both immense opportunities and ethical	Every time you buy something online, you create data about what you're interested in and how you like to
Develop knowledge of the physical internal and external components of a computer system.	As an IT consultant you'll need a solid understanding of different computing systems and how the hardware

KNOWLEDGE	HOW WILL IT HELP ME AT WORK?
Gain an understanding of different kinds of networks, including how and when to apply them.	The most direct application of this knowledge is working as a network engineer. In this job you'll set up and
Knowledge of the software development process, including iterative design principles. Understand	When you design software, you usually begin with a problem you're trying to solve. As a software engineer
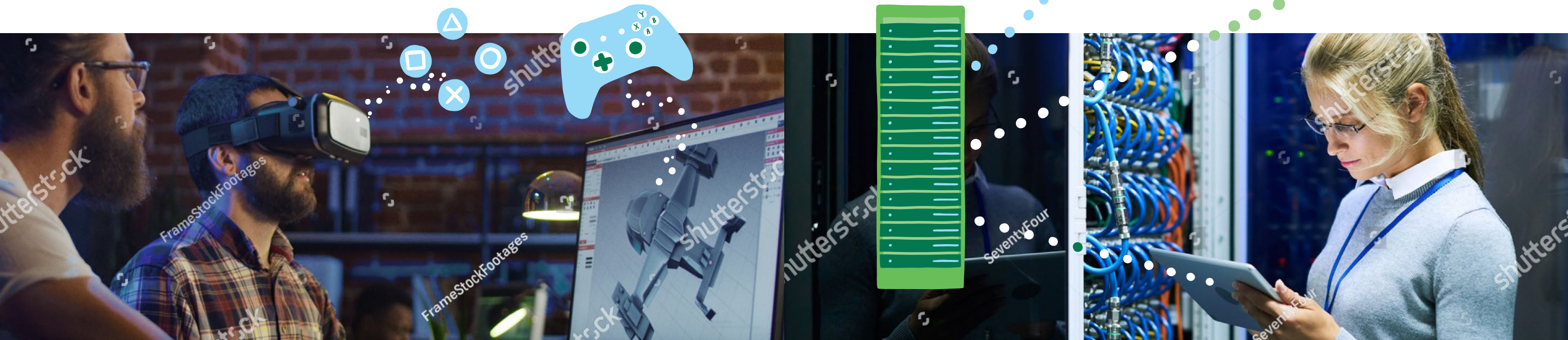
SHOULD I CHOOSE COMPUTER SCIENCE?

choose...

GCSE
KEY STAGE 4

Computer science is a foundation subject, so you will have to take a GCSE in it. If you choose to study it at A-level, good grades will

REVISION

GCSE's
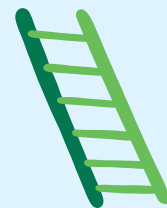
BTEC NATIONALS / APPLIED QUALIFICATIONS
KEY STAGE 5

Applied qualifications like the BTEC National in computing combine theory with practical, skills-based learning, making them especially good if you're not sure what you want to do

AIM HIGH

next steps

A-LEVEL / SCOTTISH HIGHERS / IB / EQUIVALENT
KEY STAGE 5

Computer science at A-level is recommended if you plan to study a computer science degree, along with maths. Further maths and

CLASS of 20
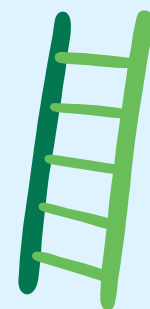
WORK EXPERIENCE
KEY STAGE 4 / KEY STAGE 5

When you're looking for work experience in Year 10, it's best to approach local technology and computing companies. Look for businesses in areas such as IT

INTERN

SHOULD I CHOOSE COMPUTER SCIENCE?

choose...

GAP YEAR

A gap year is also a good opportunity to get work experience in the area of computing. CyberFirst runs a bursary scheme with

APPRENTICESHIPS
INTERMEDIATE / ADVANCED LEVEL

An apprenticeship trains you in a particular role while you do it as a paid job.

There are many intermediate and advanced level apprenticeships where good computing skills
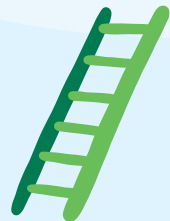
UNIVERSITY

Computing degrees typically lead to employment within the wider IT sector. 63% of 2018-19 graduates in subjects such as computing, cyber security
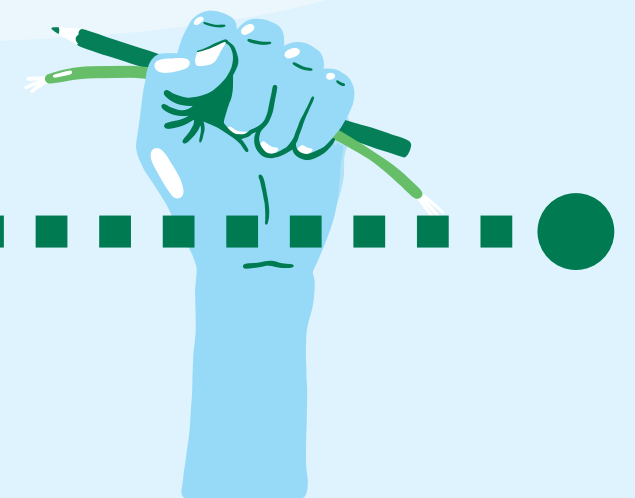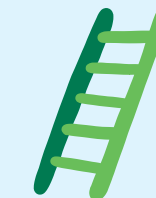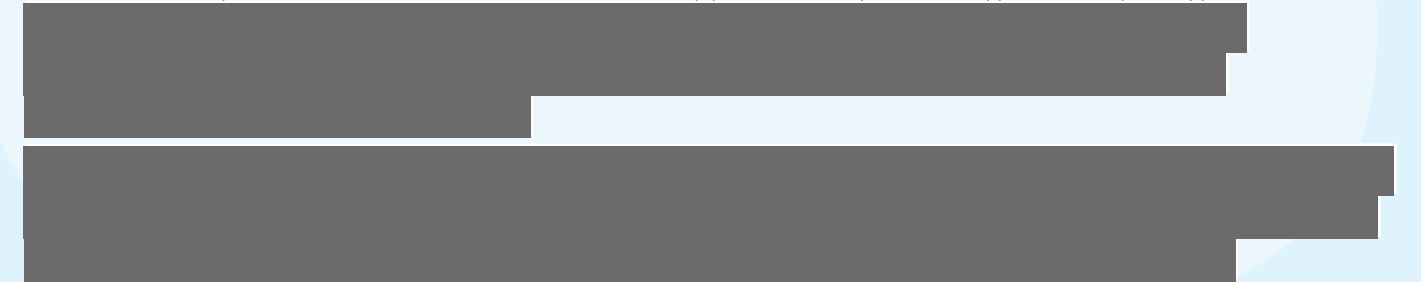
APPRENTICESHIPS
HIGHER / DEGREE

Computer science will also help you get on a range of higher or degree level apprenticeships. There's a growing skills gap in

Other apprenticeships you could consider:

- Cyber security technical professional
- Infrastructure technician
- Nuclear technician
- Software development technician
- Software tester

JOB ROLES

Career paths directly related to computer science

IT & THE INTERNET › SOFTWARE TESTER
Salary: ▮▮▮▮▮

CAREER

You'll test software and systems to find issues that need to be fixed before a product is launched. Understanding software and the various testing methods is vital; you'll also need your communication skills to share findings with other team members.

EDUCATION

At 14: GCSE

At 16: A-level/equivalent

At 18

TIP

OTHER SCHOOL SUBJECTS TO CONSIDER

Electronics

EMPLOYERS

PUBLISHING & MEDIA › VFX ARTIST
Salary: ▮▮▮▮▮

CAREER

EDUCATION

At 14: GCSE

At 16: A-level/equivalent

At 18

TIP

OTHER SCHOOL SUBJECTS TO CONSIDER

EMPLOYERS

Film and TV ›

Gaming ›

Common career paths for computer scientists

ENGINEERING › ROBOTICS ENGINEER
Salary: ▮▮▮▮▮

CAREER

EDUCATION

At 14: GCSE

At 16: A-level/equivalent

At 18

TIP

OTHER SCHOOL SUBJECTS TO CONSIDER

EMPLOYERS

ADVERTISING, MARKETING & PUBLIC RELATIONS › PPC SPECIALIST
Salary: ▮▮▮▮▮

CAREER

Pay-per-click (PPC) is paid advertising online. As a specialist in this area, you'll run online advertising campaigns and make sure your clients get the most from what they're spending on platforms like Google and Bing. The analytical skills you develop through computer science will help you monitor campaigns and adapt them.

EDUCATION

At 14: GCSE
Choose computer science.

At 16: A-level/equivalent
Choose computer science A-level, or the BTEC Level 1 and 2 in digital information technology.

At 18
Choose a degree in advertising or marketing, or the integrated degree digital marketer apprenticeship.

TIP

Learn how to use software like Google Analytics, Kenshoo and Marin to help you stand out.

OTHER SCHOOL SUBJECTS TO CONSIDER

English, maths, science

EMPLOYERS

Advertising and marketing › Loud Mouth Media, Circus PPC Agency, novi.digital

Ecommerce › Amazon, Argos, eBay, Asos

JOB ROLES [CONTINUED]

Career paths you might not have thought of

ART & DESIGN › USER RESEARCHER
Salary:

CAREER

EDUCATION

At 14: GCSE

At 16: A-level/equivalent

At 18

TIP

OTHER SCHOOL SUBJECTS TO CONSIDER

EMPLOYERS

RETAIL & MERCHANDISING › SUPPLY CHAIN MANAGER
Salary:

CAREER

EDUCATION

At 14: GCSE

At 16: A-level/equivalent

At 18

TIP

OTHER SCHOOL SUBJECTS TO CONSIDER

EMPLOYERS

Other roles:

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WHY WORK EXPERIENCE MATTERS

Why you should do computer science work experience

Computer science work experience gives you a chance to apply some of the skills you're learning in real-world situations. Depending on what kind of work experience you get, you may even have a chance to do some programming.

But working in computing requires more than just strong technical skills. You also need to be able to work as part of a team, communicate with people who may not be as technically minded as you, and solve a wide variety of problems. When you take a work experience placement, you can learn valuable transferable skills like these.

Work experience will also help your CV stand out when you are looking for a job. Employers want to know that you can use your technical skills in the real world and be able to fit into their organisation.

WHY?

How you can make the most of work experience

Where you can find placements

WHERE?

HOW?

CV

HELLO

PROACTIVE

HOW COMPUTER SCIENCE WILL KEEP YOU FUTURE-PROOFED

In the past 30 years we've seen technology advance at a rapid rate, and it's not slowing down. Advances in machine learning and artificial intelligence (AI) are set to change work as we know it. Automation will completely remove some jobs, but it will create others.

AI engineers –

Data scientists –

Cyber security –

Software and hardware engineers –

Network specialists – businesses need sophisticated IT networks to operate in today's digital world. Your knowledge of networking will pave the way for careers like systems architect and business information specialist.

As technology progresses, the specific skills required will change. But computer science will arm you with the fundamentals you'll need to learn and adapt to technological change in the workplace.

ADD TOMATOES TO MY SHOPPING LIST

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RAF PROFILE

Join the Royal Air Force and you'll join an organisation that makes a difference. Whether in the skies above Britain or in airspace around the world, it's our job to protect the UK. No two days are the same: there's no such thing as an ordinary day, because it's no ordinary job.

We protect the country against any form of threat. We also act as a force for good in the world by working to strengthen international peace and security, whether providing air support for British troops in action or flying missions alongside our international allies.

We face threats in an uncertain world, ranging from unauthorised aircraft entering protected airspace to cyber-attacks. We're ready to scramble state-of-the-art aircraft to intercept threats. We identify and manage threats before they materialize, through intelligence, surveillance and reconnaissance. We use a combination of state-of-art equipment and aircraft to gather minute-to-minute information on air activity. We also monitor threats in space, from weather and debris that can damage orbiting satellites, to hostile acts from our adversaries. And we have the aircraft, know-how, and reach to get humanitarian aid, equipment, and people into affected areas quickly.

The RAF is made up of over 30,000 personnel, across more than 60 different roles. We're based all over the UK and around the world. Today the RAF is engaged in 15 missions on 4 continents

in 22 countries. We have to be ready 24 hours a day, 365 days a year.

ROUTES IN

For certain roles we offer experience days, for candidates to get an idea of what a specific role and life in the RAF is like. These can be arranged via your local Armed Forces Careers Office.

Entry into service ranges from zero qualifications; via one of more than 20 Ofsted Outstanding rated apprenticeships, up to a specialist degree or professional qualification for certain roles. We may even be able to sponsor you through university, or fund your course.

CORE VALUES

- Respect
- Integrity
- Service
- Excellence

SKILLS

- Adaptability
- Communication
- Teamwork
- Organised
- Leadership potential
- Integrity
- Maturity
- Problem solving

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SPOTLIGHT JOB:
Cyber intelligence officer

What is a cyber intelligence officer?

A cyber intelligence officer identifies threats to IT systems and finds ways to prevent cyber attacks. You'll use digital resources to gather information and evidence about different threats. You also need to keep one eye on the future. Identifying new and evolving threats is an important part of your job. You'll assess their possible impact and find ways to prevent them.

GREAT!

Why should it interest me?

Smartphones, computers and the internet have become a fundamental part of life. We shop and bank online. We use these devices and the internet to communicate. We all have a digital footprint that contains personal data. That's something we should protect.

In the UK, there's a need for more people with digital skills. Tech companies in the UK and around the world are growing. Cyber security was one of the fastest growing areas of employment among tech scaleups in 2018. That means there are lots of job opportunities, both at home and abroad.

According to the latest statistics, there are between 31,000 and 40,000 people employed in cyber security roles in the UK alone. There are more than 800 firms in the UK that actively provide cyber security products or services. 89% of these firms are small and medium-sized enterprises (SMEs). That figure doesn't even include the businesses that have their own specialist cyber security teams.

It's estimated that there'll be 1 million tech vacancies in the UK by 2020.

Jobs for cyber intelligence officers will be among them.

??? THE DEAL?

What does the job involve?

Cyber security is a field that doesn't stay still. New technology is always being developed and that means new threats are constantly emerging. As a cyber intelligence officer, your job is to stay one step ahead of the hackers.

You'll identify threats and ways to protect against them. As part of this you may even carry out 'ethical hacking', where you simulate security breaches to find the best ways to protect against threats. You'll also create disaster recovery plans that allow an organisation to get back on its feet after a security breach.

Explaining your work, writing reports and making recommendations to others in your organisation is essential. You'll also need to develop relationships with other organisations to safely share security knowledge.

There are jobs for cyber intelligence officers across the private and public sector. You could work for government agencies like GCHQ, or in a specialist cyber security team within a large organisation. Businesses in finance, the media and energy are often looking for people with these skills. Or you may find a job with a cyber security consultancy.

Another place you can find work in this field is with the RAF as a cyberspace communication specialist. In this job you'll be responsible for setting up, operating and maintaining the technology that the RAF relies on to communicate.

This role will use all your technical knowledge, as well as problem solving, teamwork and analytical thinking skills. You'll constantly be learning and updating your skills to keep pace with developments in technology. Your skills will also make you highly employable in the civilian sector if you choose to leave the military.

✓ THAT'S ME!

What do I need to work as a cyber intelligence officer?

You need to be passionate about cyber security and have a strong interest in IT if you want to work in this area. Excellent spoken and written communication skills and organisational skills are essential too.

There are many paths that can lead to a job as a cyber intelligence officer. You could do a higher or degree apprenticeship in cyber security, cyber intrusion or network engineering. GCHQ also runs a cyber security degree apprenticeship.

If you want to go to university, studying for a degree in cyber/information/network security, computer science, maths, or software/electrical/network engineering will help you develop the skills and knowledge you need. There are many graduate training schemes in this area too. You could also start in an entry-level position in an IT security firm when you finish your GCSEs or A-levels and work your way up to become a cyber intelligence officer.

OPPORTUNITIES

JOB FACTS	
Job opportunities: 31,339-39,174 people employed in cyber security in the UK	
Salary range: £20,280 – £84,760	
Economic contribution: Total GVA contribution £2.3bn (2015/16 financial year)	
Industry growth: 50% growth in the number of cyber security firms from 2012-17	
Key skills required: Analytical thinking, communication, ability to work under pressure, attention to detail, problem solving	

NAME: Qaasim

EMPLOYER: Royal Air Force

JOB ROLE:
Cyberspace communications specialist
(rank of Senior Aircraftsman or SAC)

What does your role involve?

I'm a cyberspace communications specialist, providing reliable communications to enable airpower in the UK and oversees on operations. My current role is a network engineer at 90 SU provide robust and reliable IT infrastructure. The roles and responsibilities of my current job would be similar to that of a network engineer in a civilian job.

What do you do on a day-to-day basis?

My day starts at 8am in the flight office, where briefings and daily tasks are allocated. The tasks range from servicing, exercise preparation/de-preparation, courses and general office tasks.

When I'm not working, I'm in the gym doing circuits, football or karate training. We get time every day to do physical activity to keep our fitness up. My days vary due to deploying on exercise, competing in sports and even participating in parades or regimental duties.

What subjects did you study at school?

I needed at least grade 4 in GCSE English language, maths and a science subject to be able to apply for the role I'm in.

What training were you provided and how has it helped?

My training gave me fundamental building blocks for a solid foundation, with the trade itself allowing for further specialisation is different areas of IT and communications. In my current role I've gained Cisco qualifications and also had the opportunity to do a foundation degree in IT and communications. The degree is fully funded and conducted through Staffordshire University, which works closely with the Armed Forces. It's allowed me to do the role on deployment in various places around the world, such as Afghanistan, Kuwait and Iceland.

How did you adjust to being in a workplace?

The transition from civilian to military life wasn't overly tasking for me as I had the discipline gained from years of martial arts training. What did take some getting used to was being away from family and loved ones. The RAF provide many opportunities to attend military and civilian leadership and management courses.

Did you always want to do this job?

What attracted me to the RAF were the trade opportunities while being able to serve. Being able to provide IT and communications to enable airpower in the UK and oversees was an exciting prospect.

What advice do you have for someone who wants to do your role?

Reply back to the recruitment staff whenever they contact you as soon as possible but at the same time be patient as they are very busy. Use this time to prepare both physically and mentally.

How do you see your career changing in future?

I enjoy the fact that every day is different and that there are so many opportunities to do different things. One day I could be working on cutting edge tech and the next day I could be on the tatami [mat], training for a karate competition. My next goal in the RAF is to get promotion to the rank of Corporal and, given the chance, to guide and teach future recruits of the RAF.

"...every day is different..."

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FULL LIST OF JOBS
mentioned in this guide

WANT MORE CAREERS ADVICE?
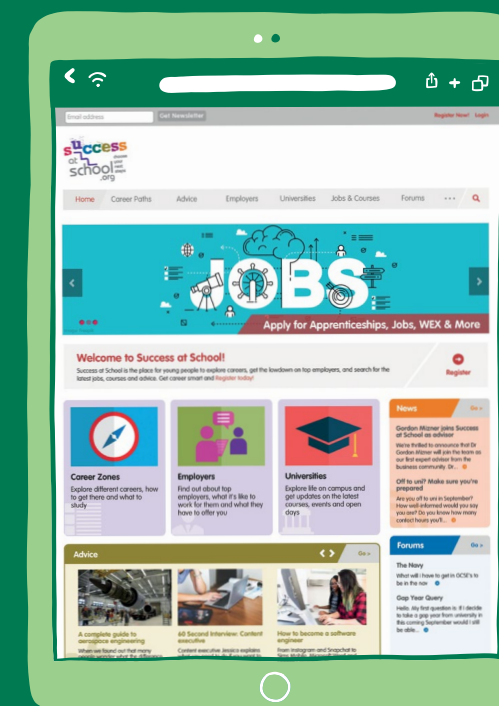
VISIT OUR WEBSITE

Go to successatschool.org and have a look around. It is the place for young people to explore careers, get the lowdown on top employers, and search for the latest jobs, courses and advice.

Start saving your favourite jobs, reading up on careers advice and courses, building your CV, recording your work experience and talking to employers and unis in our forums.

Simply register online at **successatschool.org** to set up your **free** account with Success at School.

Interview
Interview
Interview
Interview

NAME: Lucy
EMPLOYER: Morgan Stanley
JOB TITLE: Technology graduate apprentice; currently entitlements support analyst
APPRENTICESHIP TITLE:
IT: Software Development BSc (Hons) at Strathclyde University degree apprenticeship

What does your role involve?

What subjects did you study at school?

Why did you choose to do an apprenticeship?

How did you find out about your apprenticeship?

What are the two most important transferable skills you use in your role?

What advice do you have for someone who wants to do your role?

> "...be open, ask questions and communicate..."

Morgan Stanley

Interview
Interview
Interview
Interview

NAME: Amie
EMPLOYER: RS Components
JOB TITLE: Digital and technology apprentice
APPRENTICESHIP TITLE:
Level 4 Software Developer

What does your role involve?

What do you do on a day-to-day basis?

What subjects did you study at school?

Why did you choose to do an apprenticeship?

What are the two most important transferable skills you use in your role?

What advice do you have for someone who wants to do your role?

How do you see your career evolving?

> "I'm constantly learning something new..."

Interview

NAME: Ashleigh
EMPLOYER: PwC
JOB TITLE: Technology degree apprentice
APPRENTICESHIP TITLE:
Flying Start Technology degree programme,
University of Birmingham

What does your role involve?

What do you do on a day-to-day basis?

How do you use your knowledge of computer science in your role?

Why did you choose to do an apprenticeship?

What are the two most important transferable skills you use in your role?

What advice do you have for someone who wants to do your role?

Finally, do you see your career changing in the next 5-10 years and if so, how do you see it changing?

> " Be prepared to take every opportunity presented to you... "

pwc

Interview

NAME: Jack
EMPLOYER: IBM UK Ltd
JOB TITLE: Integration technical lead
APPRENTICESHIP TITLE:
Digital & Technology Solutions
degree apprenticeship

What does your role involve?

Why did you choose to do an apprenticeship?

What subjects did you study at school?

How do you use your knowledge of computer science in your role?

What advice do you have for someone who wants to do your role?

> " An apprenticeship meant I could work on real-life deliverables... "

IBM

APPRENTICESHIPS

In this section, we've grouped apprenticeship programmes under Career Zones such as 'banking & finance'. We've included as much information as possible for intermediate and advanced apprenticeships. For higher and degree apprenticeships, we have listed apprenticeships under the most popular industries for computer science students.

For higher and degree apprenticeships, we've also included some example employers and the salary and entry requirement for these employers. Grades shown on their own (e.g. 'ABC') are A-level requirements; employers also generally accept equivalent level 3 qualifications but we haven't listed these. Other entry requirements are explained clearly e.g. "five GCSEs". Assume that five GCSEs includes English and maths, and require minimum C grades.

This isn't an exhaustive list; it's meant to give you an idea of what's out there. Make sure to check directly with the employers whether the higher and degree apprenticeships listed are still available when you're ready to apply. Details such as salary and entry requirements may have changed.

Search on Success at School, Find An Apprenticeship and employer websites before applying.

To find apprenticeships: Look on the Success at School Jobs & Courses pages and the Find An Apprenticeship website and sign up for alerts matching your preferences. Google employers such as those listed below to find out about their apprenticeship schemes. Schemes normally start in September, so start looking the previous Autumn and remember new opportunities are advertised throughout the year.

FIND AN APPRENTICESHIP

AT SUCCESSATSCHOOL.ORG

JOBS & COURSES

OPPORTUNITIES
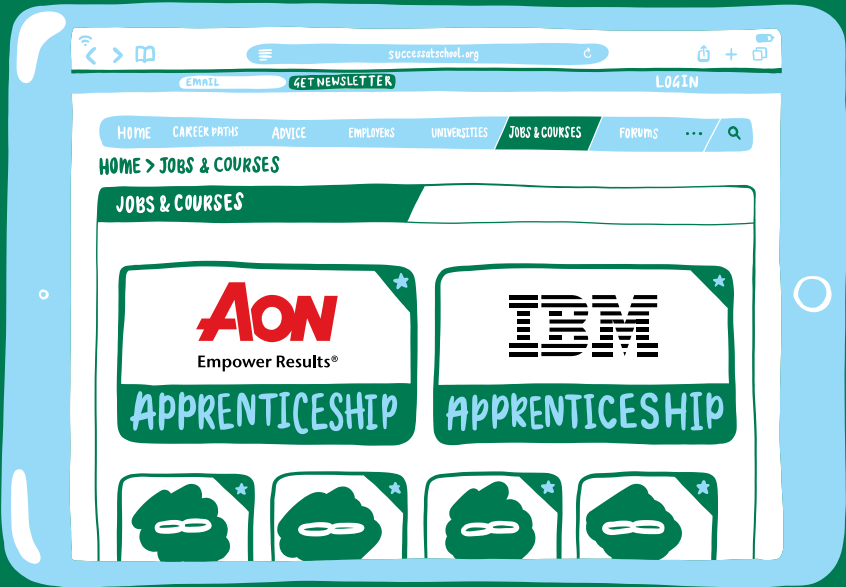
Go to the Jobs & Courses page on our website to find an apprenticeship.

Intermediate apprenticeships

An intermediate apprenticeship is equivalent to five GCSEs at grades 4+/C+. To get onto an intermediate apprenticeship programme, you generally need "functional skills" in English and maths – which you will have if you've achieved GCSEs at grades 4+/C+ in these subjects. If you don't, you may be able to complete these qualifications on the scheme.

Intermediate apprenticeships computer science students can apply for include:

ADMIN & CLERICAL

ENERGY & UTILITIES

BANKING & FINANCE

ENGINEERING
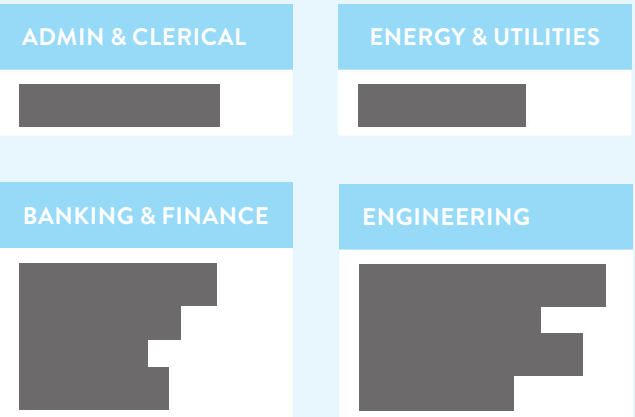
Advanced apprenticeships

An advanced apprenticeship is equivalent to two A-levels. You usually need five GCSEs at grades 4+/C+, including English and maths, to embark on an advanced apprenticeship, but you may be able to study towards any qualification you may need whilst on the scheme.

Advanced apprenticeships for computer science students include:

ACCOUNTANCY

IT & THE INTERNET

BANKING & FINANCE

ENGINEERING

INSURANCE & PENSIONS

MANUFACTURING & INDUSTRY

ADVANCED

INTERMEDIATE
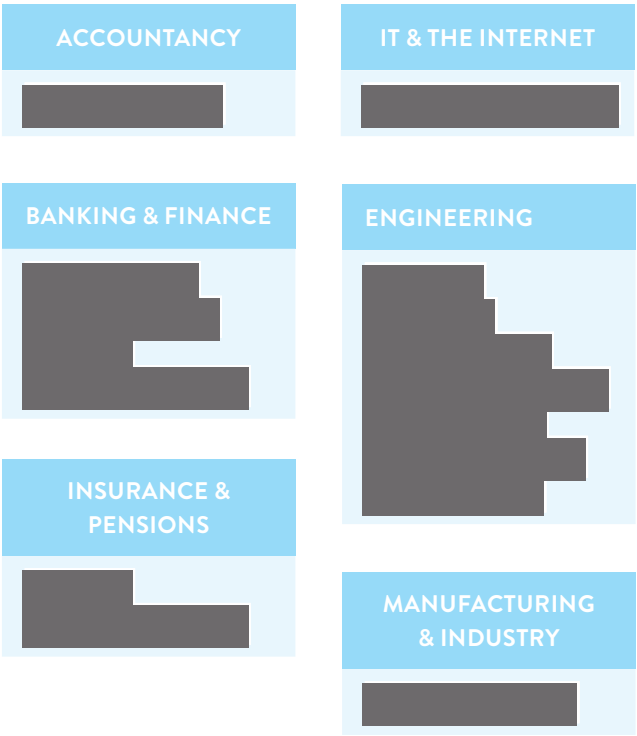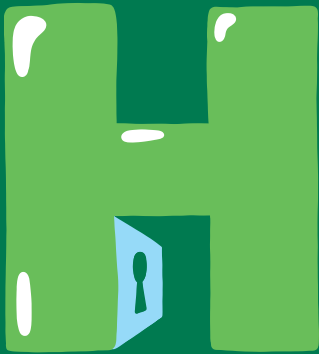
Higher apprenticeships

A higher apprenticeship is equivalent to a level 4, 5 or 6 qualification. That puts it on a par with a Higher National Certificate, Foundation degree or higher. Some higher apprenticeships lead to a Bachelor's degree or equivalent qualification. You'll usually need two A-levels or equivalent to embark on a higher apprenticeship. In the listings where there are no grades, assume the minimum grade required is C or equivalent.

Business & Project Management

EMPLOYERS	PROGRAMME	SALARY	GRADES
Avanade UK	IS Business Analyst	£17,500	5 GCSEs including CS or Physics

Consultancy

EMPLOYERS	PROGRAMME	SALARY	GRADES
IBM UK	Technical Junior Management Consultant	£18,000	64 UCAS points

Cyber Security

EMPLOYERS	PROGRAMME	SALARY	GRADES
Anglo American	Cyber Intrusion Analyst	£22,000	3 A-Levels

Engineering

EMPLOYERS	PROGRAMME	SALARY	GRADES
Collinson (Central Services)	QA Engineer	£21,000	Unsure

IT & the Internet

EMPLOYERS	PROGRAMME	SALARY	GRADES
Appoly	iOS/Android Developer	£14,000	5 GCSEs

Science & Research

EMPLOYERS	PROGRAMME	SALARY	GRADES
			STEM subject

Degree apprenticeships

A degree apprenticeship (referred to as a graduate apprenticeship in Scotland) is equivalent to a level 6 or 7 qualification like a Bachelor's degree or even a Master's. You'll generally need two A-levels to embark on a degree apprenticeship. Entry requirements are A-level or equivalent unless otherwise indicated. In the listings where there are no grades, assume the minimum grade required is C or equivalent.

Banking & Finance

EMPLOYERS	PROGRAMME	SALARY	GRADES

Consultancy

EMPLOYERS	PROGRAMME	SALARY	GRADES

Cyber Security

EMPLOYERS	PROGRAMME	SALARY	GRADES

Engineering

EMPLOYERS	PROGRAMME	SALARY	GRADES

IT & the Internet

EMPLOYERS	PROGRAMME	SALARY	GRADES

Science & Research

EMPLOYERS	PROGRAMME	SALARY	GRADES

EVERYTHING YOU NEED TO KNOW ABOUT GAP YEARS

What's a gap year all about?

A gap year pretty much does what it says on the tin. It's about taking a break between two stages of your life. For young people, this usually means taking time between the end of school and the start of further education, training, apprenticeship or a full-time job.

EXPLORE OPTIONS

Why should I consider taking a gap year?

Who can help me plan my gap year?

There are a range of gap year providers which offer organised travel, work and volunteering programmes, as well as useful planning tools.

DREAM IT DO IT PLAN AHEAD

WHATEVER SUITS YOU

How long does a gap year last?

Gap year work and study programmes can last anywhere from two weeks to 12 months, so you can choose a length of time that suits you.
If you want to take a break between school and university, you'll need to wait until the following September to join the next intake of students.

WORK OR PLAY

So what can I do on my gap year?

You've got a lot of options open to you, but the important thing is to use your time well and make a plan to give the year some structure.

Volunteering

Volunteering can be a great way to combine travel and work experience. Popular volunteering

Study

Paid work

WONDERFUL DEALS

LIFEGUARD

Camp America

DofE

UNIVERSITY

Five most popular courses for A-level maths students

Here, we look at the five most popular university degree courses taken by maths A-level students. We list the top five universities for each of these subjects, ranked by student satisfaction and percentage of graduates employed after six months of graduating. See below for more info on our methodology.

Tuition fees for all courses are £9,250 p.a., and course length is three years (some courses may be longer with placements), except for Scottish universities, which we've marked with a *. Courses at Scottish universities are four years long, and cost £1,820 p.a. for Scottish students, but £9,250 p.a. for students from other parts of the UK. Some other universities offer

courses at a lower rate – you can check this on their website. We have included A-level requirements, as well as Scottish Higher requirements for Scottish universities marked with a *. Please check the university websites for the entry requirements for equivalent qualifications, such as International Baccalaureate, diplomas and so on. Entry requirements can sometimes be quite specific and we don't have the space to include everything here, so please check university websites to see full details.

136
UNIVERSITIES
(UK)

50k COURSES
For undergraduates to choose from

1.77m
UNDERGRADUATES
(UK)

GOING TO UNIVERSITY IN NUMBERS

90%*
IN WORK OR FURTHER STUDY

84%
Students satisfied with the quality of their course

*Graduates within six months of leaving university (Figures from 2016–2017)

RANK	UNIVERSITY	OUR SCORE	A-LEVEL REQUIREMENT	SATISFACTION SCORE	% GRADS EMPLOYED
1	Liverpool John Moores	91.4	BBC	93.9	84
2	Strathclyde	89.3	AAA/ABB inc A in maths or *AAAA/AAABB inc English & maths	90	87
3	Leeds	88.7	AAA	89.2	87
4	Loughborough	88.6	AAB/ABB	86.5	95
5	Nottingham Trent	88.5	ABB	91.7	79

RANK	UNIVERSITY	OUR SCORE	A-LEVEL REQUIREMENT	SATISFACTION SCORE	% GRADS EMPLOYED
1	Lancaster	86.2	AAB	84.7	91
2	Loughborough	85.9	AAB	84.6	90
3	York	84.5	AAB	85.4	82
4	Nottingham Trent	84	BBB	83	87
5	UEA	83.4	ABB	85.8	76A

RANK	UNIVERSITY	OUR SCORE	A-LEVEL REQUIREMENT	SATISFACTION SCORE	% GRADS EMPLOYED
1	Warwick	91.8	A*AA inc A in maths	92.1	91
2	Loughborough	91.2	ABB inc maths	90.9	92
3	St Andrews	90.6	AAA inc maths or *AAAB inc A in maths & science subject(s)	88.7	96
4	Surrey	89.3	ABB inc maths	88.3	92
5	Cambridge	89.1	A*A*A* inc maths & further maths	86.5	97

RANK	UNIVERSITY	OUR SCORE	A-LEVEL REQUIREMENT	SATISFACTION SCORE	% GRADS EMPLOYED
1	Leeds Arts	84.3	112 UCAS points (plus portfolio)	89.5	69
2	Nottingham Trent	83.8	112 UCAS points	84.1	83
3	Middlesex	83.8	112 UCAS points	88.1	71
4	Falmouth	83.6	104-120 UCAS points	87.2	73
5	De Montfort	83.2	112 UCAS points (plus portfolio)	84.9	78

RANK	UNIVERSITY	OUR SCORE	A-LEVEL REQUIREMENT	SATISFACTION SCORE	% GRADS EMPLOYED
1	South Wales	92.2	BBB inc maths	95.5	82
2	Lancaster	89.7	AAA inc maths or further maths or AAB inc maths & further maths	90.6	87
3	Loughborough	89.4	AAA inc maths or A*AB inc A* in maths	90.9	85
4	St Andrews	89.3	A*A*A inc A* in maths or *AAAAB inc A in maths	89.7	88
5	Cambridge	89.3	A*A*A & STEP	90	87

Methodology

Source for university data: The Guardian University Guide 2018.

Scoring: We calculated our overall score by taking into account student satisfaction and employment prospects, the two areas we think are most useful to our readers. This comprised four metrics: satisfaction with feedback, satisfaction with overall course, satisfaction with assessment, and percentage of students in employment six months after graduating. Our student satisfaction score comprises of the three metrics, satisfaction with feedback, satisfaction with overall course, and satisfaction with assessment. % grads employed refers to graduates in paid work within six months of graduating.

Source for subject data: Best Course 4 Me, an independent website run by the charity The Brilliant Club.

events

FOR YOUR DIARY

ORGANISATION	PROGRAMME	LOCATION	DATES

WEL-COME

OPEN DAY

ROYAL AIR FORCE
REGULAR & RESERVE

NO ORDINARY JOB

APPRENTICESHIP OPPORTUNITIES

We have more than 20 roles to choose from with RAF delivered apprenticeships rated outstanding by Ofsted, please see details below and on our website.

TECHNICAL AND ENGINEERING
Aircraft Technician (Avionics)
Aircraft Technician (Mechanical)
Weapon Technician
Survival Equipment Specialist
Electrician
Vehicle & Mech Equipment Technician
General Technician Workshop
Comms Infra Technician
Cyberspace Communication Specialist
Photographer

AIR OPERATIONS SUPPORT
Air & Space Operations (Aerospace Systems)
Air & Space Operations Specialist (Flight Ops)

LOGISTICS
Chef
Air & Ground Steward
Driver
Supply, Storage and Distribution Specialist
Mover

PERSONNEL SUPPORT
Personnel Support

FORCE PROTECTION
RAF Police
Firefighter
RAF Regiment Gunner

COMMUNICATIONS AND INTELLIGENCE
Intelligence Analyst

SEARCH RAF RECRUITMENT

Excellent starting salary and career progression
Guaranteed job after successful training
Gain civilian-recognised qualifications

Ofsted
Outstanding
Training provider
2014|2015