Careers of the future
West Midlands
Foreword

Taking your first steps into the world of work has never been easy, but the current pace of change makes these decisions increasingly complex. Technology has played a huge part in changing the face of work as we know it, with automation re-shaping industries of all shapes and sizes, as well as making it easier than ever for companies to start from nothing. The world has changed, career paths are no longer black and white and we often hear now that young people today are preparing for jobs that don’t even exist yet!

What’s more jobs are continuously changing (some more than others) – in terms of the tasks, skills and qualifications required. It’s clear that megatrends like globalisation and new technologies (robotics, artificial intelligence) will go on to further revolutionise the world of work over coming years.

While on one hand this presents a tremendously exciting opportunity for those starting out on their career paths, it also makes it clear how much harder it must be to make the right decisions.

It is not surprising therefore that young people in particular can find careers choice bewildering. Individuals and their family and friends have only a limited amount of direct exposure to the jobs that are out there.

This report presents easily accessible information about the labour market prospects for jobs in the West Midlands, based on research by the UK Commission for Employment and Skills (UKCES) into the world of work.

It also profiles a selection of jobs in detail, looking at entry routes, work tasks, typical rates of pay and progression opportunities.

The aim is to help young people to explore their career options with the support of parents, teachers and career advisors. In particular, we hope that it will provide a starting point for young people to explore the wide range of stimulating careers resources that are available and which we signpost in the report.

As an employer in the West Midlands, Jaguar Land Rover is committed to inspiring the next generation of engineers through our award winning education and outreach programmes. In my role as Chair of the Greater Birmingham & Solihull Local Enterprise Partnership Employment & Skills Board, the importance of getting the right information at the right time to inform career choices is a recurring theme that underpins the Board’s work.

Helping our young people to make the right careers choices for them is critical to the future of the West Midlands economy – for individual success and well-being and for the productivity and competitiveness of our businesses. We hope this report can make a positive contribution to that process.

Alan Volkaerts
Board Director Greater Birmingham & Solihull Local Enterprise Partnership
Director Jaguar Land Rover

November 2015
Using the most up-to-date occupational research, this guide has been produced to showcase 40 top jobs in 10 key occupations that our analysis of the West Midlands job market suggests will be crucial over the next decade.

The aim is to inspire young people about the wide range of jobs that are out there, inspiration which they can use when mapping a career pathway.

From the 40 jobs listed, we have picked six examples of some of the most exciting and rewarding jobs that we believe will present young people with a good mix of opportunity, reward, and long-term potential – all key aspects people should be considering when making their career decisions. We highlight what each of these occupations entails, from the skills and attitude required to longer-term growth predictions and, crucially, how people can start to engage with this sector, and make it a career they can aspire to.

### Business & Finance

- **Sales accounts and business development managers**
  People working in this field engage with customers to understand their needs and also coach and lead a team of sales people to work towards agreed sales targets.

- **Business and finance project managers**
  Project managers work across all areas of business and the public sector, planning and organising resources and people to make sure projects finish on time, stay within budget and meet the requirements of the organisation.

- **Management consultants and business analysts**
  Management consultants and business analysts use their business skills to help organisations solve problems, improve efficiency and manage change.

- **Quality assurance and regulatory professionals**
  Those working in these professions are the keen-eyed perfectionists of the business world. Their roles involve meticulously checking through a broad range of content such as reports and contracts to ensure every detail is exactly as it should be, preventing costly mistakes in the process.

- **Solicitors**
  Experts in law, solicitors work with a huge range of clients - both commercial and private - giving legal advice across an enormous range of specialisms from conveyancing and custody to real estate and restructuring.

### Culture, Media & Sport

- **Sports coaches and instructors**
  Sports coaches work across a range of areas, from schools and leisure centres to sports clubs and facilities, combining groups and individuals to reach new goals - or just keep fit and healthy.

- **Graphic designers**
  Using artistic flair and a creative mindset, graphic designers help bring ideas to life in all sectors, from corporate business to advertising and marketing.

### Education

- **Secondary education teachers**
  Secondary school teachers help to prepare young people for a fulfilling life after school by providing instruction in one or more subjects in a secondary school.

- **Teaching assistants**
  Teaching assistants help teachers with their day-to-day classroom work and with administrative tasks.

- **Primary and nursery education teachers**
  Primary and nursery school teachers give young children the best start in life, developing and preparing them for secondary school.

- **Secondary education professionals**
  Including senior roles such as head teachers, college principals and senior academic administrator roles, people working in this group manage the effective running of a school, university or college.

- **Special educational needs teachers**
  Special educational needs teachers work closely with schools and teaching staff at all levels of education to provide tailored learning support to individuals who need extra support.

### Construction

- **Carpenters and joiners**
  Carpenters and joiners make and install wooden fixtures and fittings as part of construction projects, working in a variety of roles including shop fitter and kitchen fitter.

### Architects

Architects design new buildings and work on the restoration and conservation of existing buildings. They manage the construction process, control budgets and deal with planning issues.

### Plumbers and heating and ventilating engineers

These jobs involve fitting, servicing and repairing water pipes and heating systems in homes and businesses.

### Chartered surveyors

Chartered surveyors carry out vital observations related to the measurement, management, valuation and development of land, buildings and other property, searching for any dangers or structural issues which may impact on almost all aspects of construction work.

### Quantity Surveyors

Quantity surveyors are the experts behind most construction projects, their role is to manage (and likely minimise) the costs involved whilst ensuring that quality requirements are met.
Health Care

• **Doctors**
  From GPs to surgeons, doctors diagnose and treat illnesses and disease in patients, providing advice and reassurance.

• **Nurses**
  Every day, Britain’s nurses save lives; they’re at the coalface of A&E and are the people patients see most while recuperating, providing vital care and assistance to those in need.

• **Nursing auxiliaries and assistants**
  Often known as health care assistants, people working in this area assist doctors and nurses in the day-to-day care of patients, either in hospitals or the wider community.

• **Pharmacists**
  Playing an increasingly important role in day to day health care, pharmacists combine a knowledge of chemistry and biology with customer care to help treat common illnesses throughout their communities.

Information Technology

• **Programmers and software developers**
  From designing the software that keeps huge retailers and manufacturers moving, to building the latest hit games and apps, programmers and software developers create solutions in almost every sector imaginable.

• **IT specialist managers**
  From data centre managers to IT support managers, people working in this job manage the delivery of specialist IT services within an organisation.

• **IT business analysts, architects and systems designers**
  People working in this role are employed by companies to design IT systems and processes or analyse existing ones and to recommend improvements.

• **IT project and programme managers**
  IT project managers oversee the implementation of major IT projects, such as the installation of computer systems, to meet the needs of a wide range of organisations.

• **Web designers and developers**
  People working in this group use their creativity and technical skills to design, build and maintain websites.

Manufacturing, Installation, Maintenance

• **Electricians and electrical fitters**
  Electricians fit and repair electrical circuits and wiring and maintain electrical machinery in people’s homes or in businesses.

• **Welding trades**
  Welding trades workers join metal parts by welding, brazing and soldering. They work in a variety of industries including construction, engineering, automotive and aerospace.

• **Tool makers and fitters**
  As highly skilled machinists and manufacturers, tool makers and fitters create all manner of bespoke jigs, dies, gauges and other tools used in manufacturing processes.

• **Vehicle technicians, mechanics and electricians**
  Those working in these roles keen to roll their sleeves up and get hands on - they work in a wealth of settings, repairing a huge range of faults, on everything from cars and motorbikes to trucks, buses and more.

• **Metal working production and maintenance fitters**
  These specialist tradespeople combine a range of engineering skills to overhaul, repair and replace industrial manufacturing machines.

Science, Engineering & Technology

• **Mechanical engineers**
  Mechanical engineers undertake research and design, direct the manufacture and manage the operation and maintenance of mechanical systems, such as engines, vehicles and machinery.

• **Design and development engineers**
  Design and development engineers take initial product ideas (across a wide range of areas, including for engines, instruments, vehicles, electronic equipment etc) and develop them into designs and prototypes.

• **Electronics engineers**
  Electronics engineers design, develop and oversee the operation and maintenance of electrical systems, including power stations, building control systems and other systems such as railway signalling.

• **Production and process engineers**
  Workers in these careers focus on how to make manufacturing processes better - whether that be refining materials or developing production lines.

• **Electrical engineers**
  These engineers specialise in designing and developing electrical equipment, solving problems and testing solutions in everything from the largest supercomputers in the world to the smallest hand-held devices.

• **Research and development managers**
  Research and development managers oversee the creation of new products and services, typically leading a team of researchers or engineers to meet deadlines, monitor costs and bring ideas to life.

Social Care

• **Nursery workers**
  Giving our little ones the best start in life (and dealing with a good share of the mess), nursery workers play a vital role in early year development and education for the next generation.

• **Care workers and home carers**
  Care workers are the front line staff in all care settings. They work with all types of people who need care and support to ensure the individual’s overall comfort and wellbeing and to help them to live as independently as possible.

Sales & Customer Service

• **Customer service managers**
  Customer service managers organise customer service support and supervise the staff involved in dealing with the needs of customers.
Choosing a career is probably one of the most important decisions most people will ever make. For many, it used to be a straightforward decision – people either had their dream job in mind to start with, or searched for the jobs that their level of education could get them at the time.

Today, learning opportunities are better, but the concept of a job for life no longer exists. So, it’s no surprise choosing a career path can feel daunting. The next generation is predicted to have more complex career paths, making it harder still to know what skills they will need to acquire. Technology is also changing the face of work at an increasingly rapid rate – jobs that may exist now could be completely re-shaped in just a few years, adding increased complexity to an already taxing problem.

Of course, choosing a career is partly about knowing what you’re good at, and finding roles that match your talents. But we believe it’s also useful to have information about where the future opportunities lie – to see what roles are actually out there, and what their prospects are looking into the future. This guide has been developed to help steer these complex decisions, and act as a starting point for further exploration into the kinds of jobs which are available, and the potential opportunities they can offer.

Getting in

You will notice that many of the jobs featured are not ‘entry-level’ jobs for young people. They require a longer-term commitment to a career path. But the range of routes to help people on their journey has never been wider. Young people can take an academic or technical and vocational qualification – through sixth form or college and perhaps on to university, or a higher technical course. But there are also many opportunities for a generation of people taking the first steps in their career to earn while they learn through an apprenticeship. The new Higher Apprenticeship route allows students to study while they work, all the way to a degree.

Who’s it for?

This report is aimed at individuals who are supporting young people as they make choices about their future career journey. We also hope young people will read this report themselves and be excited and inspired by the range of careers available to them.

Keep reading:

• If you want to inspire young people about the exciting and diverse range of career opportunities that are out there.
• If you support young people:
  – In year 9 who are starting to think about their career options
  – In year 10/11 who are thinking about sixth form, apprenticeships or college courses
  – In year 12/13 who are thinking about university, higher apprenticeships or a job.

Why is this report important?

The world of work is changing at a faster and faster rate. Based on current trends it will be very different in 2030 compared with what it looks like now.

While we can’t predict the future, it seems increasingly likely that technology will pervade all aspects of the workplace. Arriving to work on your hoverboard may remain science fiction, but many workplaces are likely to become ‘virtual’ with workers using technology to interact seamlessly from any location.

One major implication of this is that individuals will need to have far more autonomy and flexibility in their working life. Being capable of managing projects and workloads is likely...
How did we create the list of 40 top jobs?

Career choice is a personal thing. One person's dream job may well seem a nightmare to others. However, it's useful to know how jobs compare on things that matter.

To create our list we analysed the jobs market in the West Midlands to identify top jobs based on future job opportunities, pay and business need, and from this list, then selected the top jobs in each of 10 key occupations.

The indicators we used were:

- **Pay:** How much do people earn on average in the job?
- **Job opportunities:** How much is the job expected to grow in terms of the number of people employed, and which jobs have the greatest recruitment demand?
- **Business need:** Which jobs do employers say are difficult to fill because of lack of candidates with the right skills and experience?

We brought all of this information together to give an overall score for each job.

What we know, and what we don't know!

Some of the information we have used is about where we think demand for jobs will be in the future – the level of employment in a particular occupation, and how it is projected to grow. These projections are based on past trends and its important to note that projections for individual jobs can be affected by many unknown factors in the economy that may arise in the future.

We would emphasise that the job outlook information we present here can usefully support the career decision-making process but it should not be the sole basis for a choice of career.

Just as important as the prospects of different sectors is the important day-to-day happiness and job satisfaction that working in a particular career brings to people. This includes the sense of reward people get from helping others as part of their job, and the sense of personal satisfaction people feel. This is very difficult to measure and so we haven't built it into our analysis, but we do discuss these factors in our job profiles and there are lots of resources available that can be used to explore these aspects of work, and how big a part they play in each of our chosen jobs.

For more information about the method used to identify the top jobs please visit (www.gov.uk/government/publications/careers-of-the-future).

What about new jobs?

In identifying our list we have focused on the prospects for today's jobs – in occupations for which we have statistical data. But just as we can identify job titles today that didn't exist 10 years ago (such as offshore wind farm engineer or social media manager), we fully expect that new jobs may emerge over coming years as a result of new technology, changing consumer requirements and other trends. In our Future of Work study (www.gov.uk/government/publications/jobs-and-skills-in-2030) we have more closely examined how the world of work of 2030 might be shaped by the trends we can observe now. We have also developed a Your Future Job quiz to help people identify the job of 2030 that may suit them. Try it for yourself at yourfuturejob.ukces.org.uk.

What we can all see is that there is an evolution of existing jobs taking place – new tasks, new knowledge and skills requirements, and changing work patterns. It is arguably these factors that are the most important issue to be aware of. For instance, just as the electrical era has progressed to automation, and now into digitalisation of systems, the role of the engineer has moved from mechanical to encompass electronic, and digital aspects. This means the engineers already in employment today must continually re-skill themselves in order to keep pace with technological opportunities.

That's why, in each of our job profiles, we have sought to highlight where the 'hot' next areas lie, to prompt further research using the careers links provided.

This report is intended to spark discussion about what these choices are, how obtainable they are, what different careers can offer and how we should be looking at what makes a good career. Links to information and resources that enable you to explore the whole careers landscape are also available within this document, should you want to learn more about them.
Project managers are experts at organising and co-ordinating people, making sure that complex tasks are completed on time, within budget and to the right quality standard. If you were the kind of person who colour-coded your revision timetable, if you relish the opportunity to take charge of a project from start to finish, and if you have top-notch planning and problem-solving skills, this could be the career for you.

Project management is a critical part of modern business. Good management and leadership directly contributes to the success of any business or organisation. Project managers are employed in all sectors of the economy; in addition to specialists such as IT project managers and construction project managers, there is always a need for project managers in general areas of business, such as finance, product development, marketing or human resources.

Leading employers of project managers include the NHS, the major banks, and engineering firms. Some large organisations have a dedicated project management office (PMO) which oversees its project management activity. As well as working directly for a company there are opportunities with project management consultants or to work as a freelance project manager.

The typical responsibilities of a project manager include:
• Finding out what the customer for your project wants to achieve
• Agreeing the timescales, costs and resources needed
• Drawing up a detailed plan and schedule for each stage of the project
• Selecting and leading a project team
• Negotiating with contractors and suppliers for materials and services
• Making sure that each stage is progressing on time, on budget and to the right quality standards
• Reporting regularly on progress to senior managers and the customer

Obviously project managers need to be good at planning their work and the work of others, but forget the spreadsheets for a moment: a huge part of the job is the ability to lead and inspire a team. You need great communication and negotiation skills to work with your own team and your customers and suppliers. You also need to think on your feet and deal with problems as they arise.

As a project manager, you will need a range of business and interpersonal skills including:
• Excellent organisational, planning and time management skills
• Creative problem-solving ability
• Great attention to detail
• Good communication and negotiation skills
• Understanding of budget control
• The ability to work well with others and lead a team
• Commercial awareness
• Good IT skills

For specialist projects you will need relevant technical knowledge, which might include relevant laws or rules you have to take account of. Being aware of any risks that may threaten the success of your project is also important.

There are different ways to become a project manager. You can study towards a foundation degree, degree or postgraduate award in business or project management. Alternatively, you can move into project management on the strength of your experience. For example, you might progress after starting out as a member of a project support team, or move up after managing smaller projects in another job.

To work as a project manager, you will normally need experience of applying project management principles and methods, such as PRINCE2. You may also need skills in particular software, for example Microsoft Project or Open Workbench.

With experience in a project management role, you could progress into senior management or become a freelance consultant.
My name is Mehul Parmar, and I am project leader for e-drive projects at GKN Driveline Birmingham. My main responsibility is to coordinate development of electric and hybrid vehicle powertrain systems with our experts in Germany, Spain, and Italy.

I've diversified quite a bit through my career. I've worked in construction, aerospace, defence and marine, and now automotive. The technology probably interests me more than anything, development of new technology - new things for my brain to figure out and how they work!

I guess there's always a bit of a mathematical bias in Indian families! I had quite an interest in maths and science, plus I was always a bit creative and into design. When I was in sixth form, I figured out that design with physics with mathematics means engineering! From there I did my research and went to Brunel University in London. They're quite biased towards aerospace, and I always wanted to work with planes.

“It was a perfect career step for me”

I did a master's degree with a business placement year. This was a really good stepping stone for jobs and for when I became a chartered engineer with the Institute of Mechanical Engineers. When I graduated at the peak of the recession it was really competitive, but the master's degree helped. I took a job in London related to my placement before being approached by a headhunter for the Manufacturing Technology Centre in Coventry. I walked into this glass-fronted, nice looking, new technology centre, and thought - I wouldn't mind working here. It was a perfect career step for me working with the biggest Aerospace companies in the UK.

At GKN the staff are a mix of people who've come through university and apprenticeships. Predominantly it's university, but one of our platform engineering managers came through the apprentice route. He's slightly older than me, but also a step up from my position. Sometimes apprenticeships sound like you might get there slower. But you get a lot more practical experience along the way, and you don't get as much debt either!

Recently, GKN's push to become a full system supplier has given me the opportunity to learn from our experts while GKN is growing and developing. It's put me into the deep end and given me the opportunity to learn quickly which I like. It's exciting stuff because it's all new technology - it was the perfect time to join I guess.
Design and development engineers

Design engineers make better products and make products better. They come up with ideas for innovative products and systems that are crucial to business success. They draw on their creativity and engineering skills to solve problems across a range of industries and bring ideas to life.

Whether it be vacuum cleaners or high performance components for motorsport, design engineers see potential solutions and improvements that others might not. They are often frustrated with the weaknesses of existing products and determined to make them better.

To be a design engineer you must be able to combine the principles of engineering and design to address practical problems. Computer aided design software is a key tool for this job. You also need to be able to collaborate as part of a wider team in order to test your design and put it into production. Commercial awareness is also key.

This job is not just about clever ideas. Design engineers need to take into account a range of practical factors when developing a product. As well as the look and feel, this can include usability and safety, strength and reliability, efficiency and cost, and increasingly the environmental impact of a product over its lifecycle.

Engineering skills and knowledge come to the fore in carrying out the day-to-day responsibilities of a design engineer. Typical tasks can include:

- **Research** – this can involve the use of mathematical modelling to determine whether a design idea would work and be cost-effective.
- **Design** – turning ideas into technical plans using computer-aided design (CAD) and computer-aided engineering (CAE) software.
- **Testing** – collecting and analysing data from tests on prototypes. The process often involves several stage of modifying prototypes and re-testing.
- **Reporting** – providing clear progress updates for project managers and clients.

Design engineers are employed across a wide range of industries, from construction, oil and gas and railways through to manufacturing sectors such as electronics, aerospace, and the car industry.

This is a highly skilled job and to get in you will normally need a foundation degree, HNC/HND or degree. A range of subjects are relevant, including engineering product design, computer-aided design engineering design and manufacture and materials science. Many design engineers also hold mechanical, electrical and civil engineering qualifications.

You may also be able to get into this career by starting off as an apprentice with a manufacturing or engineering company and then continuing your training on a Higher Apprenticeship, such as the Higher Apprenticeship in Advanced Manufacturing Engineering.

Once you start working you would usually train on the job alongside more experienced staff, possibly as part of a graduate traineeship. The Institution of Engineering Designers offers a programme of continuing professional development and you could also work towards incorporated or chartered engineer status.

With experience you could become a project manager, strategic planner or consultant design engineer.

Design engineers need to have a wide range of skills, abilities and interests, including the following:

- Problem-solving skills and a creative approach
- Knowledge of computer assisted design (CAD) software
- An excellent grasp of engineering and design principles
- A knowledge of the qualities of metals and other materials
- Excellent communication skills
- An understanding of manufacturing processes and construction methods
- An awareness of the environmental impact of design ideas.

The role of design engineer is typically a full-time job, with normal hours of 37-40 hours per week. Much of your work will involve desk and computer work in a design or drawing office, but with you’re likely to travel to meet clients.

**Would you like to learn more about this job? Use the following links to find advice and guidance, and explore further:**

- [Tomorrow’s Engineers](https://www.tomorrowsengineers.org.uk)
- [Institution of Engineering Designers](https://www.institution-engineering-designers.org.uk)
- [The Institution of Engineering and Technology](https://www.theiet.org)
- [SEMTA](https://www.semta.org.uk/careers)
- [National Careers Service](https://nationalcareersservice.direct.gov.uk)
Christopher Martin
Development engineer at Jaguar Land Rover

I’m Christopher Martin, and I work on the development engineering team on chassis at Jaguar Land Rover.

I joined Jaguar from the graduate scheme in 2008 – I heard about it after going to a graduate careers fair at the NEC in Birmingham. It was a science and engineering event - I talked to a number of employers about graduate schemes, and Jaguar was the best one I got offered.

I studied mechanical engineering at university. When I started looking at what I might want to do at university, I started gravitating towards engineering as an applied science more than an academic science, that appealed more to me. I’d always had a level of interest in cars, although I must say when I first started in mechanical engineering I probably didn’t have that clarity. As I went through that I found out I enjoyed more of the automotive based courses.

I would say that maths is something I use every day. I use maths I’ve learned at every stage of education to a certain level, whether it’s basic trig stuff you do at GCSE to really complex mathematics that I learnt in my engineering degree.

“The most interesting part of my job is the problem-solving side of things”

The most interesting part of my job is the problem-solving side of things - you want to deliver something that gives you a nice quiet car, as well as a car that’s engaging to drive, and you want to deliver it for the right cost for the business but the right quality for the customer, and at the right time. There’s many solutions to look at, and that’s something that I hadn’t expected. It’s great working in a sector that’s got quite a tangible end product that you can see driving down the street. You can explain to people that, oh yes, I work for Jaguar.

The most exciting thing that I’ve worked on was the new platform which the Jaguar XE was launched off, from start to finish. We spent a lot of time working on that, solving problems as we went along, and I’m pretty proud of the set of components that we’ve got on the car. It’s now to the point where it’s on sale, the press have driven it, and it’s got a good reception.

If I had a piece of advice for someone wanting to follow in my footsteps, it would be to pick the A-levels, to get into the university course, that you think you need to follow your career path. If I’d have not selected maths I think I’d have run the risk of burning my bridges a little bit. I think it was a bit of a happy accident that I picked the right ones.
With a growing population and increasing demand for childcare, careers in early years care are set to grow in the years ahead. Nursery workers (sometimes known as nursery nurses) help babies and pre-school children to develop and learn, providing a safe and supportive environment. You’ll need to be prepared to get your hands dirty, but a career in childcare can be highly rewarding, and a lot of fun.

Nursery workers are employed across a variety of settings, including local authority childcare establishments, privately owned nurseries, Sure Start Children’s Centres and reception classes in primary schools.

As a nursery worker a typical day could include:
- Planning and supervising activities like arts and crafts, music and cooking
- Helping children to learn numeracy skills through activities like counting games
- Reading stories and providing activities to develop the children’s language skills
- Feeding and changing babies
- Observing children and making notes for use in reports
- Working to early years foundation stage standards on child learning
- Making sure the children are safe and well at all times (safeguarding)

Some experienced nursery workers specialise in particular areas such as working with children with physical disabilities, learning difficulties or mental health issues.

You don’t always need formal qualifications to start training as a nursery worker, although a good standard of general education, such as GCSEs, including English and maths, may be preferred by some employers and course providers. It may be possible to start out as a nursery assistant, working under the supervision of a qualified nursery nurse/worker.

To become a qualified nursery worker, you will need a recognised Level 2 or Level 3 childcare qualification. This type of qualification is known as ‘full and relevant’, which means it meets certain standards required by law. You can check to see which qualifications are full and relevant on the Department for Education website (www.education.gov.uk/eypqd/search/search.cfm).

You may also be able to begin this job through an apprenticeship. You will need GCSEs in English and maths (A*-C) to start an apprenticeship. For all jobs, you will need to have background checks carried out by the Disclosure and Barring Service.

Nursery workers need a variety of skills and abilities to perform their role effectively, including:
- A warm, caring and patient nature
- Good communication skills
- Creative ideas for activities
- An interest in child development
- An awareness of child safety issues
- The ability to work in a team

Nurseries can be open from around 7am in the morning to 6pm in the evening. You would normally work eight-hour shifts within these times each day. Some settings are also open on Saturdays. Part-time working is very common in this job.

Once you are employed as a nursery worker your manager will support you in taking further training as part of your professional development. New level 3 qualifications in childcare are being offered by colleges and training providers, known collectively as Early Years Educator qualifications.

As an experienced nursery worker you could progress to room leader, senior nursery worker or centre manager. You could become a community nursery worker or community play leader, or complete further training with the aim of moving into children’s nursing, teaching or social work. With experience you could also study towards a higher education qualification in early years or child development. This could open up career options in management or early years teaching.
My name is Ruth and I am 46 years old, I work for Coventry University as the nursery manager. Ever since I was about 12 years old I have always wanted to work with children, to help me prepare for this I did a lot of babysitting and I also did my 2 week work experience in a nursery. This experience helped me to make up my mind.

After leaving school I was fortunate enough to be accepted onto the NNEB course. This was a full time course over 2 years. I studied at college as well as going out to placements. After completing the course I became a nanny for a 3 year old based in my hometown of Coventry. I did this for a year then the child went to school. This job was quite lonely as there was only me and the child; there were no other adults to interact with.

I then was lucky enough to get a job at Coventry University Nursery working part time which I really enjoyed. Since being at the nursery I have gone from part time to full time, was made Senior Nursery Nurse, then I was the Deputy Manager and now I am the Manager. I have continued to study; completing my NVQ 4 and a BA Honors in Childhood and Education.

I have been a manager for over 10 years now, it can be very challenging. We have to adhere to Ofsted regulations and the National Curriculum, The EYFS (Early Years Foundation Stage). We also have a lot of paper work to complete. A typical nursery nurse has their own group of children they care for, this includes changing their nappies, completing observations on them, liaising with parents and discussing the child's progress and providing age appropriate activities.

It is not an easy job working with young children, you need bags of patience. You also need to be caring and have a good understanding of child development. Having to write daily observations means that you need good skills in English writing and communication.

The pay is not very good; many private nurseries pay just over minimum wage. I have been fortunate working for the university as their pay is excellent. The Local Authority also pay well (working in a Children's Centre or nursery class).

I definitely chose the right career; I have been working with children for nearly 30 years. In the future I hope to maybe stop work at the nursery and become a full time foster carer. I love my job as you get to meet lots of children and their parents. It's very rewarding when you see how far a child has developed since being in your care. Young children are also very interesting and I have some lovely chats with our older children.
Pharmacists

With an ageing population, and a growing focus on offering more ways for patients to access treatment, the demand for pharmacists is at a high. Pharmacists work in a highly complex field, combining practical knowledge of biology and chemistry with high levels of face to face interaction with people. As one of the fastest growing fields in medicine, this is a role with high levels of responsibility, but rich rewards and opportunities for those with the right skills.

Pharmacists are playing an ever larger part in frontline healthcare, becoming the first port of call for a wide range of illnesses able to be treated through medication. Though the main duties of a pharmacist include checking prescriptions and dispensing medicines, this job is far more than putting pills in paper bags. An increasingly large part of the role revolves around working with the public to offer basic diagnosis and advice, making people skills a must-have.

Most pharmacists work either as community pharmacists, or at a hospital pharmacy. As a community pharmacist, you will be offering guidance to the public and preparing medicines bought at the counter. The role involves making sure that laws controlling medicines are followed, and can also involve helping to run the business. In a hospital pharmacy the focus is on providing advice on medicines to colleagues working in healthcare roles, as well as taking responsibility for the purchase, manufacture and quality testing of all medicines used in a hospital.

A life in pharmacy does not mean being stuck to a counter from 9 to 5 – many pharmacists are also involved in residential visits and care, offering even more diversity. There are also opportunities to work in education or in industry, carrying out research into new medicines and running clinical trials.

To work as a pharmacist, you need to have:

- Good communication skills
- An interest in the health and wellbeing of people
- A high level of scientific understanding and ability
- Good maths skills, with the ability to calculate and use scientific formulae
- Accuracy and attention to detail
- Good business skills (for running a community pharmacy).

Understandably, entry requirements are high due to the wealth of knowledge and expertise required to handle medication. Before you can work as a pharmacist, you need to complete a four-year Master of Pharmacy (MPharm) degree, a one-year pre-registration training course in a pharmacy and a registration exam.

Your degree and training must be approved by the General Pharmaceutical Council (GPhC) the independent regulator for pharmacists. Entry requirements typically include five GCSEs (A-C) including maths and English, plus three A levels, usually in chemistry and two other science-based subjects such as biology, maths or physics.

If you do not have the qualifications to get onto an MPharm degree, it may be possible to do the pharmacy foundation degree, which is a two-year, full-time course. When you finish this course, you can usually find a job as pharmacy assistant or technician, you can then apply for an accredited MPharm degree directly into year two.

The majority of pharmacists work as full-time employees but many work part-time or are self-employed. As a pharmacist in a hospital setting, you would usually work 37.5 hours a week, including weekends, and as part of an on-call rota. As a community pharmacist, you could work up to 48 hours a week, full-time.

A pharmacy career offers good opportunities for progression. There is a formal career structure in the NHS, and with experience you could progress to team manager or pharmacy consultant. Promotion opportunities are also good with larger pharmacy chains, and you could progress to a regional or national management post. Some pharmacists set-up their own community pharmacy business.

Would you like to learn more about this job? Use the following links to find advice and guidance, and explore further:

General Pharmaceutical Council
Royal Pharmaceutical Society of Great Britain
Association of the British Pharmaceutical Industry (ABPI) Careers
NHS Careers
National Careers Service

www.pharmacyregulation.org
www.rpsgb.org.uk
www.careers.abpi.org.uk
www.nhscareers.nhs.uk
https://nationalcareersservice.direct.gov.uk
My name is Tom Kallis and I’m a community pharmacist with Boots UK. As a teenager, when deciding what A level subjects I wanted to do, my thoughts had already turned to what I might want to study at university. While investigating prospective courses, I found my interest was sparked by modules to do with pharmacology, therapeutics and toxicity: all of which pointed to a degree in Pharmacy. I had never really considered pharmacy as a profession and upon further reading began to appreciate the delicate calligraphy of chemistry, pharmacology, clinical skills and legal responsibilities that came with the job. Throughout my study I did several summer student placements with Boots UK, which allowed me to understand the role of a community pharmacist. I did my fifth preregistration year with Boots UK and in my final year of study I worked full time under an experienced, qualified pharmacist who helped me to put the theory I had learned into practice in a clinical setting, as well as learning what was required to run a successful community business. I was awarded the national Chemist & Druggist preregistration graduate of the year award in this year before I had even qualified.

For my first professional role I worked in a busy service centre where I was quickly offered a position as lead pharmacist and then Pharmacy Manager. Here I had the privilege of working on projects such as setting up the first pharmacy led Yellow Fever Vaccination centre, delivering our largest ever year for the winter flu vaccination service and hosting several visits from local politicians to help raise the understanding of the profession and what pharmacists do. I was then offered the opportunity to oversee one of the largest pharmacy businesses in the area, dealing with both a public dispensary and care homes service department.

Typically my day job is spent clinically assessing prescriptions and making sure they are dispensed correctly and safely before dispensing to the public. Pharmacy is more than dispensing though. I am often asked for advice on minor ailments and hold clinics where we review patients on long term medications and their correct use, new medicines services and also workshops on the flu vaccines available and sexual health services.

As a pharmacist I also play a role in aiding the local drug and alcohol team in providing a safe needle exchange programme and supervising patients who are on rehabilitation prescriptions.

I couldn’t recommend the career highly enough to anyone considering pharmacy as a profession. It is hard work, fast paced and incredibly rewarding and offers a whole range of career prospects.
Vehicle technicians

This is a good career for people who like to get into the nuts and bolts of a problem. You will enjoy finding out how complex systems work, and have excellent practical skills. You will also need good people skills to deal with customers and clients.

Vehicle technicians repair and service cars, vans, motorbikes, lorries and coaches. They work on all vehicle mechanics and electrics, from engines and exhaust systems to air-conditioning and security.

Vehicle technicians work in a wide variety of settings from vehicle dealerships (cars, trucks and motorcycles) to vehicle rental services to roadside assistance. There are lots of different opportunities and types of jobs. The Autocity website gives a lot more detail on the roles available.

In this role, your work would typically include:
- Finding faults
- Telling customers if repairs are needed and how important they are
- Working out the estimated time and cost for jobs
- Carrying out repairs and replacing damaged parts
- Road testing the vehicle to check the repair work
- Fitting and servicing accessories like radios and alarms
- Carrying out standard servicing and checks.

As an experienced technician you may also carry out MOT tests, convert standard engines to LPG systems, or work on electric and hybrid vehicles. Other career paths could take you towards teaching others your skills, at a business or in a college.

The most common way to become a vehicle technician is through an apprenticeship in vehicle mechanics. To get onto a scheme, you may need GCSEs in maths, English and science.

Another way is to take an automotive course at college to learn some of the skills needed for the job. These courses cover key areas like fault finding and diagnosis, transmission, suspension, braking and engine management systems and auto electrics and security.

On-the-job training is usually provided once you are working and there are industry qualifications available to keep your skills up to date and support career development. Qualifications include the Level 3 (NVQ) Diploma in Automotive Engineering and the Level 3 Diploma in Vehicle Technology. More advanced qualifications are available for experienced technicians, including the Level 4 Diploma for Automotive Master Technicians.

The IMI’s Automotive Technician Accreditation (ATA) is a voluntary professional development programme that allows you to pick modules that match your particular job tasks, and level of skills and responsibilities. You would take a series of practical exams and online tests in order to pass each module.

To work as a vehicle technician you will need to have a combination of practical skills and knowledge and people and communication skills:
- An excellent knowledge of motor vehicle technology
- Strong practical skills
- Good problem-solving skills to find faults
- The ability to work quickly and pay attention to detail
- Good communication and customer service skills
- The ability to follow written and spoken instructions
- A reasonable level of fitness
- An up-to-date knowledge of vehicle developments, especially new engine types and electronics
- An awareness of health and safety regulations.

As a vehicle technician you would usually work around 40 hours a week, Monday to Saturday.

In some cases your job may involve shift work (including weekends), working overtime and being available on-call. Some technicians deal with breakdowns and this involves travelling long distances and working in all weathers.
Hi my name is Scott Gretton, I’m 34 years young, and I’m a master technician at Porsche Centre Sutton Coldfield. I do a range of work from new car preparations and service work, to repairing the older generation of vehicles and restorations.

I'd been interested in cars from a young age. When I was 12 years old, my next door neighbour had an old ex-army Land Rover, and was always doing work to it. He used to let me help him do loads of work to it, we changed leaf springs, changed the gearbox, all sorts of things. Sometimes my dad used to come and fetch me in as I had school the next day, but I loved helping out on it.

I don’t have the best school qualifications, I only have 1 GCSE, which is one more than my mum thought I was going to get! But I have NVQ level 1, 2 and 3 and City & Guilds level 1, 2 and 3 in light vehicle mechanics.

I started as an apprentice, and it took me from the age of 16-19 to get my qualifications and become a technician. You always have to keep learning, technology never stops changing and moving on, you always have to keep up with the times, hence the courses you always go on.

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I don't think there's a better way to get into this job other than an apprenticeship. You can't learn everything about this job in a classroom, you can learn the theory but you need to get hands on. Some people may be good at one but not the other, I wish I'd have studied harder at school but it's not affected me in my career.

I'd have to say one of my favourite parts of my job is the road tests! The really satisfying thing is when a customer comes in with one or several issues and you can resolves those and the customer gets their car back happy. It gives you a little buzz to know you did that.

The most exciting thing I have worked on this year is a McLaren P1. I worked for McLaren and Rolls Royce up until May this year - to be trained on a million pound hyper-car where you have to work with high voltage too is amazing. Everything is made out of carbon fibre, and you have to be so careful not to damage anything as all the parts are so expensive!

I'm now the most experienced Porsche technician in the workshop, so I do a lot of the older cars, which is cool, but I also have the responsibility to help out the other younger technicians if they have issues with cars, or want my opinion on issues with cars.

If anyone was interested in doing what I do my advice would be to find the best place to start your career. I'd try to get in to a main dealer and get some experience. Also, listen to what people say to you, if they give you advice listen to it and take it in - they have the experience in the job. And the last thing, make sure you enjoy what you do!
In case you hadn't caught on yet, the internet is kind of a big deal. Over the next five years the amount of data on the internet produced per year is expected to double to 2 zettabytes – that’s 2 trillion gigabytes, or 2,000,000,000,000,000,000,000 bytes! Making it easy to understand and access that level of data is far from straightforward, and web developers are at the forefront of enabling our digital revolution, creating, maintaining and managing websites and applications.

Almost all of our day to day activities now involve some degree of online interaction, with increasing numbers of jobs and businesses entirely dependent on such activity. The people who create and manage the sites and applications we use therefore have a vital role in keeping our lives moving.

To succeed in this job you need excellent programming and creative problem solving skills, as well as the ability to understand customer needs. Work on a typical project could include:

- Working with the client, using test sites to see which ideas best suit their needs
- Building the framework – or ‘architecture’ – of the site and add the command buttons, payment systems and video, sound or animation
- Making sure that the new site can be smoothly integrated into the client’s existing network, for instance linking with a customer database
- Working on the site’s appearance, often with a web designer
- Putting in measures to deal with user access and security
- Testing the site under construction to find and fix any problems – or ‘bugs’ – before it goes live.

Developers are also often responsible for upgrading and maintaining websites or applications after they have been built.

You would normally need a foundation degree, HND or degree in an IT-related subject to get into this job. Relevant subjects include web development, digital media development, web content management, business information systems and computer programming. Tech Industry Gold Degrees are designed by employers to ensure that students develop the technical and business skills needed by industry, whilst degree apprenticeships offer students the opportunity to learn on the job while they earn their Honours degree.

You may be able to start in a junior position with alternative IT qualifications if you can demonstrate excellent skills in relevant areas, while IT apprenticeships allow you to earn while you learn.

As a web developer your skills will typically need to include:

- Excellent web and database programming skills
- A good appreciation of design, usability and interactivity
- Creative skills to turn clients’ ideas into workable plans
- Excellent problem-solving skills
- An understanding of web development standards
- The ability to work to deadlines

As with many careers, project management skills are also becoming increasingly important. The ability to work with clients to find and apply solutions to a range of problems will become an increasingly significant part of day to day life for many web developers, especially those looking to move into more senior roles, or take on freelance work.

The field of web technology is fast-moving and web developers will need to update their skills on a continuous basis. Depending on your job you could need working knowledge of a large range of coding languages, including Java, PHP and HTML. Up to date knowledge of database systems and application frameworks can also be important.

Most developers work full-time, with a 37 to 40 hour week. Freelance developers set their own hours. Deadlines are all-important though, and meeting them could involve work at evenings or weekends.
I'm Joëlle Symons and I've been a web developer at IE Design Consultancy, a strategic brand and digital agency in Birmingham's Jewellery Quarter, for about a year. My job is challenging and rewarding; in a sector where technologies are ever-evolving, the learning never stops. There's so much variety project to project, as the client's needs are always different and this is reflected when deciding which technologies to use for each build.

Having a solid foundation in maths and science from sixth form, my first steps into the tech industry were towards completing a Sound Engineering degree. The programming modules on the course led me to explore web development, and I started to teach myself HTML, CSS, JavaScript and PHP immediately after graduating. A few months later, IE Design offered me a six-month internship. It was during this I started to learn the processes, programming languages and frameworks used by IE Design - this was an amazing opportunity to add to and improve my development skill-set, and I then joined as IE’s first female developer.

“My job is challenging and rewarding; in a sector where technologies are ever-evolving, the learning never stops.”

Although it was unconventional, I wouldn't want to change the path I took to get here, as I wouldn't be exactly where I am now, working for a caring organisation with experienced and motivated people who I’ve learnt a lot from. This really helps when you are new to a sector. Joining a company with people that inspire and motivate you is a sure way to nurture your skillset in your sector, and will help you to reach your potential. The next step for me is to specialise more in front-end development, the work-around interactions on a website and the aesthetic finesse that can make or break someone’s perception of the organisation represented. (At IE, those organisations are mainly charities and value-driven clients, which makes this all the more important to get just right.) This kind of focus is important in any multi-disciplinary job to increase productivity and satisfaction in the work you do.

Whatever route you take in your career, it's good to embrace the changes in direction and look out for opportunities. Birmingham is a great city to look for these opportunities, with a growing number of young dynamic companies, particularly in the new technologies.
Next steps

This report only provides a starting point for exploring careers. We have highlighted job-specific links in the text but we also recommend that you investigate the excellent range of free information and resources that is available, a selection of which is highlighted below.

In addition to a comprehensive range of job profiles the National Careers Service (https://nationalcareersservice.direct.gov.uk) offers information and tools to plan your career journey, from identifying your dream job, choosing your subjects and deciding what to do next at year 11 and year 12/13. You can also talk to an adviser about jobs, careers, learning or training.

The Apprenticeships website (www.apprenticeships.gov.uk) is the place to go to find out more about apprenticeships. You can find and apply for the right opportunity for you from up to 25,000 vacancies that are available.

To search for colleges and universities offering relevant courses, visit the Universities and Colleges Admissions Service (UCAS) website (www.ucas.com).

But what about searching for specific vacancies for the job that you’re interested in? The Government’s Universal Jobmatch service (https://jobsearch.direct.gov.uk) enables you to search for vacancies in your local area, but there are a whole host of other job sites out there to explore.

### About the data

For each of our job profiles we have included an ‘at a glance’ panel that details vital statistics about each job.

- **People in this job in the West Midlands**: The approximate number of jobs, employment, or size, in 2012, the base year of the 2012–22 employment projections. These figures relate to the West Midlands region.

- **Job openings, 2012-2022**: The projected number of job openings that we expect to see, taking into account net growth / decline in the number of jobs but also job openings that are expected to occur because of workers leaving the occupation due to retirement and other reasons. Each of the jobs is categorised according to the number of future openings / opportunities that we expect to see in the West Midlands.

- **Employment Change, 2012–22**: The projected net change in the number of jobs from 2012 to 2022. Each of the jobs is categorised according to the expected percentage change in its employment level in the West Midlands.

- **Starting salary**: the estimated salary level that one can expect to receive when starting in a job. This information is taken from the National Careers Service website and relates to the UK average starting salary. It is intended as a guideline only.

- **Average salary**: For the job profiles this is the median annual gross pay for the job earned by employees, taken from the 2014 results of the Annual Survey of Hours and Earnings, published by Office for National Statistics. These estimates relate to the West Midlands.

- **Average hourly pay**: This is the median hourly gross pay for the job earned by employees in the West Midlands, source as per average gross salary figure.

- **Average hours (full-time)**: This is the mean weekly paid hours worked by employees in full-time jobs in the West Midlands, source as per average gross salary figure. This figure does not cover unpaid overtime, which is a common feature of some jobs.

- **Number of online job postings for this job in West Midlands in last year**: This is based on analysis taken from Burning Glass’ Labour Insight package. It should be noted that vacancies in some occupational areas (such as information technology professionals) are more likely to be posted online than others (many low-skilled jobs, for example).

Further detail is available in the background report that accompanies this guide, available online at www.gov.uk/government/publications/careers-of-the-future.

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The UK Commission for Employment and Skills (UKCES) works with industry and government to help achieve better outcomes in how people get in and on in work and how businesses succeed through the skills and talents of their people.

UKCES is a social partnership led by 30 Commissioners who are senior leaders of large and small enterprises, (including non-profits), further and higher education institutions from across the UK.

We believe that it is the talents and skills of people which drive business competitiveness and economic growth.

Find a Future is the educational organisation that brings together WorldSkills UK Skills Competitions, The Skills Show and The Skills Show Experience, providing young people across the UK with the chance to unlock their potential and get inspired about the world of work. Through hands-on skills competitions and experiential careers events, we aim to develop their understanding of, and engagement with, further education, apprenticeships and skills.

Find a Future
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Find a Future is registered in England at the above address, charity number 1001586, company number 02535199, VAT registration number GB945610716

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