

# Boosting your skills to help land an Engineering Apprenticeship

Apprenticeships are offered to anyone over 16 years old. They provide a chance to learn alongside experienced colleagues and gain practical job-specific skills in a work environment. Entry level Apprenticeships are intended for those coming out of school, and for individuals who are looking to switch careers.

An Engineering Apprenticeship calls for you to have a certain set of skills, or technical know-how in a wide range of disciplines and subjects. It is this need to have an increased skill set that means it is essential to boost these skills where you can.

In 2019, just 39% of young people aged 14 to 16 said they 'know what they need to do next in order to become an Engineer' – and this figure has remained fairly static over time.¹ ("Engineering UK 2020")

This handy document details the skills needed to be an Lift and Escalator Apprentice and what you can do to boost them, to make you stand out from the crowd when applying for an Apprenticeship.



## Skills needed

Engineering is a demanding environment full of highly skilled people. Of course, you will learn these skills during your Apprenticeship, but having evidence of possessing these skills through qualifications or experience before beginning your Apprenticeship will help get onto the best scheme, and is a quarantee to becoming a top Engineer.

We've listed below some of the key skills involved in working as an Engineer:



#### STRONG ANALYTICAL SKILLS

A great Engineer will be continually examining projects and thinking of ways to make it work better. They will also always analyse themselves and how they could work more efficiently next time.



### ATTENTION TO DETAIL

Being an Engineer means working to specifications and technical drawings. You will often be working within millimeters. Attention to detail is so important as there is no room for error in this industry.



### **PROBLEM-SOLVING SKILLS**

You must be able to make sense of complex systems and understand how they work and how problems arise. Problemsolving in Engineering means breaking a problem right down to the specifics and technicalities. Time is everything in engineering and it is important to know how to solve problems calmly, quickly, and efficiently.



#### **STEM SKILLS**

The core of any engineering Apprenticeship is STEM (science, technology, engineering, mathematics) skills. Engineering is an exact science and a series of mathematical and logical problems. It is full of complex calculations that need to be understood and resolved. Technical skills are essential as specialist programmes such as CAD/CAM are frequently used throughout a project. You will be taught these throughout your Apprenticeship, but working on these skills beforehand will certainly benefit you during your Apprenticeship.



#### **COMMUNICATION SKILLS**

Though often thought of as a generic skill, an Engineer must be able to translate complex technical language into a language that allows them to communicate with Clients and other Engineers. There are often several Engineers working on a project as well as Project Engineers, Quality Managers, Site Managers and Operation Managers. Engineering projects are so specific and technical that it is vital that there is excellent communication throughout all parties.







If you think your analytical thinking skills need some brushing up or you just want to improve them, here are some strategies you can use:



#### **BE OBSERVANT**

Paying attention to detail and being observant is a great way to improve your analytical skills because it allows you to process the way things work and interact. Using your senses and actively engaging in the world around you will help you hone your analytical skills. Try going for a walk and observing the birds and how they interact. Consider the connections and patterns in the outside world. Being more attuned to the small details in life will help you bring this set of skills into the workplace.



#### **READ BOOKS**

An important part of being analytical involves being alert and remaining stimulated. Try joining a book club or picking up more books. Reading on a more frequent basis will help keep your mind running, force your brain to think in new ways and encourage you to view ideas differently.



#### **ASK OUESTIONS**

When someone asks questions, they're often asking for clarification and understanding. Expressing curiosity provides you with different viewpoints and allows you to compare your own opinion with someone else's. Sometimes your questions will lead you to a different answer than initially expected. This is commonplace in any problem-solving situation and actively wires your brain to think more analytically.



#### **LEARN HOW THINGS WORK**

Don't just find the solution but know exactly how certain things work. By scrutinising how things work, you will have a better understanding of the process which is vital in stimulating your analytical skills.



#### **PLAY BRAIN GAMES**

Brain games challenge you to think deeply and logically. Because they are seen as entertainment, brain games are often a preferred method used to sharpen your analytical skills. Playing Sudoku, solving crossword puzzles or playing board games are great examples.



#### **KEEP A JOURNAL**

Recording your day's events gives you time to reflect. When things don't turn out as planned, you can learn from these mistakes and take them into account for your future actions. A large part of analysing involves trial and error. Keeping a journal to remind you of your past is a great way to hone your thinking and analytical skills in considering your future.



#### THINK ABOUT YOUR DECISIONS

Making important decisions at work is very common. Think hard and rationalise your decisions. What are the pros and cons of your decision? Ask for an expert opinion if available or do extensive research. Ask yourself, is this the best solution for this problem? Take a step back to rethink it a bit more, and then you can finally decide.







When you pay attention to detail, you focus on producing quality work that relays the necessary information, as opposed to trying to finish as many tasks as possible in a short amount of time. Here's a few tips that can help you improve this skill:



Being able to concentrate and focus on the task at hand is key to improving your attention to detail. When you're juggling too many tasks at once, or giving in to distractions, it makes it much harder to notice if something is wrong or out of place. Focusing your concentration on one task at a time will improve attention to detail. Here are some exercises that can help improve your concentration:

- Meditating for at least 10 minutes per day, focusing on breathing and clearing your mind of distracting thoughts.
- Dedicating a block of time to reading articles and books.
- Minimising the amount of time spent on social media or anywhere where you are exposed to short bursts of information. Some people find it helpful to put their phone or smart device in a draw, in a separate room, or to even turn it off while they're trying to concentrate.









It's much easier to pay attention to important tasks when you're organised. For instance, uncluttering your study desk, maintaining a filing system for your study/work documents and ensuring that you have access to relevant resources can free up valuable time and energy.



Paying attention to detail means taking the time to do things more slowly. To create something that is of high quality, you'll need to review it multiple times, sometimes over the course of several days or even weeks. Taking the time to review your work can mean the difference between submitting something riddled with errors and something that is entirely error-free.

Some work environments value getting things done guickly over all else. However, rushing through a task or project leaves plenty of room for errors to slip through. It is possible to work at a reasonable pace and still produce a high quality of work. Stay focused and try not to get distracted and you'll be able to complete your work on time.





## **PROBLEM-SOLVING SKILLS**

While it might seem like some people are just born with stronger problem-solving skills, there are strategies that anyone can use to improve them. These are:



#### **FOCUS ON THE SOLUTION**

It's easy to become hyperfocused on the conditions that created the problem. Shifting your focus away from the current problem to possible outcomes and solutions can give you a more positive outlook and open your eyes to new solutions.



#### **CLEARLY DEFINE THE PROBLEM**

It's hard to solve a problem you never took the time to clearly define. If you find yourself getting overwhelmed and distracted during the problem-solving process, go back to step one and make sure you are approaching a singular problem.



#### **AGREE ON A PROCESS**

If you're problem-solving as part of a team, it's very important that you agree to basic ground rules and procedures before you start the problem-solving process. This will streamline the process and help you prevent conflict down the road.



#### BE SURE TO USE ACTIVE LISTENING

The best problem solvers are great listeners. Problem-solving requires you to take in a variety of inputs and opinions and carefully analyse them. It's important that people involved in the process feel heard.











Here are some ideas for ways to build your STEM skills through working with others:



### JOIN OR ATTEND A CLUB RELATED TO STEM SUBJECTS

Joining or attending a club is a great way to meet like-minded people and learn more about the topic. You can find clubs at schools, libraries, community centres, and online.



### **FIND A MENTOR**

A mentor can help you learn more about a specific STEM subject or career path. They can also provide guidance and support as you pursue your interests in STEM.



#### TAKE ONLINE COURSES OR WATCH VIDEO TUTORIALS

There are many online courses and video tutorials available on various STEM subjects and for every level of learner. This is a great way to learn more about a topic that interests you, or to improve your understanding of complex STEM concepts.



#### PARTICIPATE IN SCIENCE OR ENGINEERING COMPETITIONS

Competitions can be a great way to test your knowledge and skills in a fun and challenging environment. There are competitions for students of all ages in a variety of STEM disciplines.













There are specific things that you can improve your communication skills, such as:



#### LISTEN, LISTEN, AND LISTEN

People want to know that they are being heard. Really listen to what the other person is saying, instead of formulating your response. Ask for clarification to avoid misunderstandings. At that moment, the person speaking to you should be the most important person in the room.



#### BE BRIEF, YET SPECIFIC

For written and verbal communication, practice being brief yet specific enough, that you provide enough information for the other person to understand what you are trying to say. And if you are responding to an email, make sure that you read the entire email before crafting your response. With enough practice, you will learn not to ramble, or give way too much information.



#### WHO YOU ARE TALKING TO MATTERS

It is okay to use acronyms and informal language when you are communicating with a friend, but if you are emailing a teacher or boss, "Hey," "WU2" or any informal language, has no place in your message. You cannot assume that the other person knows what the acronym means. Some acronyms have different meanings to different people, do you want to be misunderstood? Effective communicators target their message based on who they are speaking to, so try to keep the other person in mind, when you are trying to get your message across.



#### WRITE THINGS DOWN

Take notes while you are talking to another person or when you are in a meeting, and do not rely on your memory. Send a follow-up email to make sure that you understand what was being said during the conversation.



#### **BODY LANGUAGE MATTERS**

This is important for face-to-face meetings and video conferencing. Make sure that you appear accessible, so have open body language. This means that you should not cross your arms. And keep eye contact so that the other person knows that you are paying attention.



## THINK BEFORE YOU SPEAK

Always pause before you speak, not saying the first thing that comes to mind. Take a moment and pay close attention to what you say and how you say it. This one habit will allow you to avoid embarrassments.



#### CHECK YOUR MESSAGE REFORE YOU HTT SEND

Spell and grammar checkers are lifesavers, but they are not foolproof. Double check what you have written, to make sure that your words are communicating the intended message.



#### MAINTAIN A POSITIVE ATTITUDE AND SMIL

Even when you are speaking on the phone, smile because your positive attitude will shine through and the other person will know it. When you smile often and exude a positive attitude, people will respond positively to you.









# An Apprenticeship won't just level up your career, it'll level up your life!

Find out more:

Read <u>Lift Apprenticeship success stories here</u> and all <u>about the Lift/Escalator Apprenticeship here</u>.

Ready to take the first step? Check out <u>this list of lift employers</u>. There are many different types of businesses in the industry. You can choose from big multi-nationals to smaller specialists. Each offers a unique Apprenticeship experience. Find the employer that best fits you, find out all you need to know about them – and apply!

LIFT & ESCALATOR CAREERS

Lift and Escalator Industry Association, 33 / 34 Devonshire Street, London, W1G 6PY



liftcareers.co.uk