

## **An Hour With STEM Ambassador Karen Friendship**

The room isn't the small, solitary office I imagined, with a single desk and a chair opposite it, like you find in school. In fact, there are two desks, and a long table spanning half the room - at which I now have a seat. Every so often a spaniel wanders in and out through a door that joins the office to an even larger one, sometimes settling at my feet and gazing expectantly at me for a minute or so before starting her rounds again. The atmosphere is relaxed and welcoming, as is Karen Friendship, the Managing Director of Alderman Tooling. She sits across from me, smiling and talking to me as if I were an adult, not a seventeen year old who'd been sat in a chemistry lesson just an hour ago.

Karen has worked for Alderman Tooling, a leading metal fabricator in the South West, for many years, having taken up the role of Managing Director in 2005. Since then business has flourished, with double digit growth in recent years and an increasing list of customers requiring metal components for their own businesses. Karen directs 50 employees, chairs the Plymouth Manufacturing Group (a group of 60-70 manufacturers) and has been invited to Downing Street to collaborate with business owners and leaders to advise on new policies. In 2017, Karen was also named Employer of the Year, which is a national award deserved by companies with well-developed apprenticeship and training systems in place. Clearly, Karen has become an extremely successful Managing Director. I was surprised to hear she credits this to her degree and experience in civil engineering which she had used in previous roles, for example when working for Devon County Council. "Whilst I don't do engineering now in my day job," explains Karen, "I don't think I could have got here without it."

In fact, Karen is so passionate about engineering that she is a STEM (science, technology, engineering and mathematics) ambassador, often visiting schools and giving talks about engineering and encouraging students to pursue a career in it. Many of the talks are aimed at women in particular, as STEM subjects remain fairly male-dominated – particularly engineering, of which only 20% of graduates were female in 2017.

Figures were even worse when Karen studied at university with only 8-10% of her year being female, and many dropping out over the three-year course. In sixth form, when she studied A-Levels in chemistry, physics and maths, Karen was one of only two or three girls in the classes. "It didn't bother me," she

assures me. “I got used to the language and comments, and learned to be resilient and give as good as I got.”

Karen believes it was her strong willed, confident approach that set her apart from her female peers and drove her to succeed. “I haven’t suffered from a lack of confidence and I’ve always gone for every opportunity. I go on seminars; I chair business events; I can speak in front of a big lecture theatre of professionals – yes, it’s a bit daunting, but that doesn’t stop me. But for some women such things can be an obstacle which may stop their career progression, or even their opportunities.” Karen recalls the findings of a study of LinkedIn data, in which billions of interactions between professionals, companies and recruiters were analysed. This stated that, after viewing a job, women were 16% less likely to apply for it than men, feeling the need to meet all the criteria. Men, however, usually applied after only meeting 60% of the criteria. Therefore, with more confidence and willing, women could find themselves surprised by how far they could go in their careers. As Karen says; “I think the opportunities are there for women, but sometimes confidence is the bigger issue.”

This calls for particular attention to nurturing girls and boys equally at a very young age, and encouraging both genders to try their hardest with the belief that neither are more likely to perform well over the other. In fact, some studies have shown that girls, on average, perform better in female-only environments, which is why some parents chose to enrol their daughters in girls’ schools. “I attended a girls’ school, and mostly had female teachers. In her office, my careers teacher had lots of posters of oil rigs and construction sites; and I realised that was what I wanted to do – looking out at the sea, and being outdoors and building things!” says Karen, who clearly thinks highly of her careers adviser and is grateful for the encouragement she gave her.

‘Diversity in the workplace’ has become a popular phrase over the past decade and it’s becoming more obvious that having a variety of different people contributing different ideas is beneficial to teams in any career. And that doesn’t just apply to gender. “If everyone was like me in the board room, we wouldn’t come up with as many suggestions, innovations, changes and ideas” says Karen. “With a diverse group of people - whether we have different skill sets, different genders, different age groups - I think it makes for better decision making.”

With this becoming increasingly important nowadays, women are finding themselves being the subject of “positive discrimination” in the workplace, as those in charge are keen to diversify their teams and possibly tick boxes set by changing social standards, resulting in some women perhaps being chosen for a job over men due to their gender rather than skills. “I’m not ashamed to admit that I have taken advantage of this to get my foot in the door,” laughs Karen. “I think it has helped me, but after that you do have to stand on your own two feet and be successful yourself.”

Of course, no type of discrimination is ‘good discrimination’ – we should base employment on skills alone rather than ‘box-ticking’. But at present, with men still making up the majority of top end jobs in STEM careers, it’s important that we focus on improving access to these positions for women, through education and inspiration rather than discrimination against men.

“I have the unique opportunity of being a girl” Karen jokes, “so they bring me out for all the women and girl talks, which is fine; I love doing it, and if I inspire just one or two through my career, that’s great.”

As we wrap up our interview, I ask Karen for any advice she would give to young women aspiring to be engineers, but unsure if they have what it takes. “Just go for it. Don’t be afraid of having a go. If it doesn’t work out, engineering is a great springboard into many other careers,” she says, likening this to her own situation, which led to her position as Managing Director. “Engineering is all about problem solving. Every business has a problem, whether it’s an IT problem, a machine problem, a delivery problem. Engineers are quite adaptive and good at thinking outside the box.” As for going into such a predominantly male-based career, Karen is confident in her advice, stating that women in some ways have advantages in the workplace that men don’t: “We’re good at talking, we’re good at picking up emotions” she says with a smile. “For me being female hasn’t been a disadvantage. Put me alongside my male counterparts and I’ll sink or swim with the rest of them.” I am left in no doubt that she will not only swim, but very likely win the race – and I hope one day that I, and many other women, will find ourselves not too far behind her.