

[Climax Molybdenum](#) is a production and conversion facility for ferromolybdenum, used as a strengthener for steel. The laboratory team at Climax have hosted their first Science T-level student on an industry placement. We spoke to them about how this has supported the technical team and been a development opportunity for staff as well as the student.

**Can you tell me a bit about yourself and your role?**

I'm Joanne Copping and I am a Senior Quality Lab Analyst, which essentially means a laboratory manager. I've been working at Climax Molybdenum, supervising and now managing the lab for the last 28 years.

**What type of work does the business do?**

We are basically a smelting facility. We take raw materials and we smelt them into a product called ferromolybdenum which is used in the steel industry as a strengthener for steel. The lab itself does everything from analysing the raw materials through to analysis of the finished product, and manages the impact of our emissions to air, water and ground from an environmental perspective.

**What do members of the lab team do day-to-day?**

We do everything from sampling of materials and preparing them for analysis through to gravimetric and instrumental analysis using induced coupled plasma and x-ray fluorescent wave dispersive analysis. We receive the samples and take them through the process for major and trace metal analysis and produce final reports. Everybody on the team is expected to take part in the whole process.

**What kind of employer is the company in terms of location, size, makeup of the workforce?**

We're quite small - there are roughly 80 employees on site, and the lab itself is only four people. We're located in East Anglia, although we are actually owned by an American company.

**How did you first hear about T-levels and industry placements, and why are they a good fit for the business?**

Through my contact at the Royal Society of Chemistry (RSC). West Suffolk College, which we're working with on T-levels, had recently received accreditation from the RSC for one of their courses. They asked RSC whether any employer contacts might be interested in participating in T-levels, so I became involved as part of that.

I've been pushing for a long time for us to start bringing in apprentices, but we hadn't yet found a way forward. But with T-levels being a little less commitment from the company that was given the green light straight away and might be a first step on that journey. We're working to be more sustainable and a more active member of the local community so the idea of bringing people in on T-levels went down well.

We've had a science placement this time because of where the initial contact came from but I think there would be opportunities in the engineering department – the manager there is interested in apprenticeships too and T-levels might be a good introduction for that department. The student we've got now is interested in going on to do an environmental sciences degree. Otherwise we could have thought about positions for him here – ideally that's something you want to do right from the start to see where you could bring someone in and I think this person could quite easily have integrated into our workforce.

**What placements have you offered so far?**

We've had a student with us since June last year. The 315 hours they need to complete have been split out across the year. It's tended to be one day a week but we've had a bit of flexibility so also had periods where he's been on holiday from college and been able to come in for more days at a time.

**What has the student been doing day-to-day?**

We've trained him in jobs that we know are going to be there every day that he can pick up whenever he comes in. We've then been adding in different things to cover the breadth of our work. A lot of them are our routine activities but they're still quite hands on and very chemistry based. He's getting a feel for all of the different techniques that we use gradually across the time that he's been with us.

**How have you found the process of getting the placement set up? Was there anything to address around health and safety, for example?**

Someone from the college came to visit the site and we provided them with a young person's risk assessment, which we had ready from hosting work experience previously. We just needed to modify it to incorporate the lab working environment because they've not been allowed to be in there from high school. We specified students aren't allowed to go into the working plant environment unaccompanied under the age of 18 but other than that we haven't restricted placement activities. We did take him on a plant tour so that he could see and understand it. We checked with our radiation adviser that there were no issues around working safely with the x-ray equipment and they agreed that was fine as the radiation is enclosed.

We looked at whether we needed DBS checks but the student wasn't going to be one-on-one with anybody so it wasn't an issue.

**Did you interview students ahead of the placement?**

Yes, the college put forward all six from their Science cohort. We chose two to interview and we based the process on the lab technician role that we'd interviewed for previously.

I gave the college the lab tech job description so that they could show it to the students before they applied and could hone their application.

**Have you set out areas of responsibility for the student?**

Yes we've basically put him through exactly the same training as we would have done a lab technician. He has training records for everything that he's been shown how to do and has been signed off as competent in those areas, which meant that we were then confident that we could give him those jobs to do from start to finish. For example, he's been carrying out and reporting on silicon analysis, and that's all his own work now.

He was quite quickly very useful to us in terms of relieving the pressure from staff shortages last summer. Initially there are simpler things that the lab technicians do, such as going round and checking the balances each morning or calibrating pipettes. That can be time consuming so it's a big help if you can say "that's your job this morning, take as long as you need to do it".

We are certificated for our quality system, our safety and environment, and we have an environmental permit that we have to work within. Once we found out that our student was interested in going on to study environmental sciences, we set up some time for him to work with our Environmental Scientist so she could explain about working within an Environment Agency permit, for example.

**Who is involved in supervising and mentoring the student?**

We've actually used it as an opportunity to give one of our more junior staff experience of having somebody to supervise. Making that commitment to looking after someone else and overseeing their work has been a really useful development tool. She's currently a Registered Science Technician through the RSC and I really want her to apply for the Registered Scientist, but she needed to have some form of supervisory experience, so it's worked perfectly for that.

**Has it felt like a big time commitment for staff?**

No, not really. Our student has picked things up fairly quickly so it's not as if we've constantly needed to be by his side. We spent a short period training him, told him that we're available if there's anything he needs advice on and it seems to have gone quite smoothly.

**What kind of induction did you put together for him?**

We did a very similar induction to what we've done for work experience placements, which covered our health and safety and environmental expectations. Before he started in the lab he spent about a day and a half with the different department leads and then when he came to us we gave him a laboratory induction.

**How valuable has the placement been for the student?**

I think being able to get hands on with the equipment has been a bonus for him because even when you go to university you only get to watch other people use some of these pieces of equipment on your behalf, so I think his confidence has grown within a laboratory environment. He's gained a really good grounding from what he's done on the industry placement.

**What do you hope the organisation will get from being involved with T-levels?**

I think it's opened everybody's eyes to just how beneficial it can be to have a young person in the workplace. It's demonstrated that you're giving them life skills by having them in a workplace environment, no matter which department they're in. And I think that that's now opened the floodgates and we would be able to see that happening across several different departments, not just the laboratory. It's also been very useful to use it as a development process for our own team members.

I also think it can diversify our recruitment and better match the local skill sets to the jobs we have available. At the moment we have people with Master's degrees in Genetic Engineering applying for our entry-level positions, which isn't suitable. I'd like to see more colleges make this T-level available, and for more companies to know that they're there and understand the benefits.

**Anything else to add?**

I think colleges can help employers understand what's expected of them by giving a good insight into what is covered on the course and what the individual's interests are. We can then identify what is most relevant to them and the job they're going to be doing.