

Case Study

east lothian
works

The Young STEM Leader Programme (YSLP) led by SSERC, partners with many other organisations and Award programmes to ensure that young people already engaged in excellent STEM learning and leadership can gain additional recognition through an 'Auto-Award' for the Young STEM Leader programme. The YSLP team works closely with partners to align the outcomes and criteria of the partner programmes to the YSLP frameworks.



Introduction

Dr Sharon Macnab Young STEM Leader Programme Manager

Partnering with other STEM Learning providers to build the Young STEM Leader Awards community, ensures that learners pathways are enriched. Through the Young STEM Leader Award, learners are encouraged to reflect, take ownership and communicate their learning gaining valuable leadership skills.

Foundation Apprenticeship (FA) in Scientific Technologies is one of the frameworks offered by East Lothian Works to secondary students across the region. It has been a pleasure for SSERC to work closely with David Dickson (Education Support Officer, STEM) on an Auto-Award agreement. The FA programme aligns fantastically with the Young STEM Leader Award at Level 6 (YSL6). YSL6 carries SCQF credit and is levelled via the SQA. It is a valued award for young people and their delivering centre.

YSL6

SCQF credit points	4
Insight credit points	18.7
UCAS credit points	7

David Dickson Education Support Officer (STEM), East Lothian Works

The Young STEM Leader Award at SCQF Level 6 encourages students to develop important values which are in common with the principles underpinning the Foundation Apprenticeship in Scientific Technologies.

As they start their industrial placement in S6, students have a very limited understanding of what it is to be a "scientist" (and the skills/attributes you need to be successful in this field). These qualities are developed and evidenced throughout the year with students becoming fully functioning members of their lab teams by mid-November (or earlier). At this point, they are ready to undertake tasks independently that laboratory staff rely on to be completed correctly. The students lead on these responsibilities. It is expected that students will communicate/report results with their lab supervisor to ensure that tasks have been completed to the required standard. Lab practice/ processes are often refined based on student input into discussions with lab supervisors.



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Next we hear from David, with comments from two of his students, Hayley and Callum, about what it has meant to be involved in the YSLP and the FA in Scientific Technologies programme.

The opportunity to be trained alongside expert scientists and technical staff provides students with an excellent opportunity to develop their understanding of science and explore if they're suited to a lab-based role when they leave school/university. I'm delighted that FA students successfully completing the placement are automatically awarded the Young STEM Leader Level 6 Award. This is further recognition of the technical and leadership skills that students develop over the course of their placement.



Young STEM Leaders

Both Callum and Hayley undertook a research placement at the University of Edinburgh, Geosciences department and Charles River respectively.

The benefits they have gained include:

Building Communication skills

"I had to talk to all sorts of different people in the lab, they became like colleagues." – Callum

"I have learned how to properly write up results which has helped me with my Biology and Chemistry projects in class." – Hayley

Leading learning and building confidence

"I knew I was ready to work independently when I had correctly demonstrated what needed to be done in front of my lab supervisor and getting signed off in a competency file. I was then able to plan and lead on my own." – Hayley

"After following instructions whilst being supervised allowed me to feel confident to later perform the same task again independently." – Callum

Building Lab skills and understanding the associated Health and Safety

"By doing this apprenticeship, it helped me understand the rules and regulations present in the lab and how to correctly behave." – Hayley

"I had to work to specific procedures and learned about how to use a 3 figure balance, ball mill, spectrophotometer and high precision scale." – Callum

Problem solving

"When using equipment that has slight faults I discussed this with Gavin and worked out how to deal with faulty equipment. ...this built my confidence. ...it has also allowed me to understand the importance of accountability if things go wrong." – Callum



Outcome

It is clear that both Hayley and Callum have been exemplary STEM Leaders in their FA Science placements. Hayley is planning to study Pharmacology and Callum is undecided. He's either going to study Chemistry at Heriot Watt or apply for a Modern Apprenticeship. Undertaking the Foundation Apprenticeship and the Young STEM Leader Award has clearly impacted positively on the young peoples future pathways. <<

YOUNG STEM Leader

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OCEAN WINDS



scqf scottish credit and
qualifications framework

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youngstemleader@sserc.scot
@YoungSTEMLeader
www.youngstemleader.scot