

THE YOUNG STEM LEADER PROGRAMME

Inspiring and developing young people through STEM

Annual Report

Academic year 2024/2025



Introduction and foreword



Encouraging participants to take ownership of STEM and lead learning to others ensures the Young STEM Leader Programme (YSLP) lives by the philosophy 'for young people by young people' and this year we've engaged more learners than ever with 4816 young people fully completing the programme to achieve an Award.

Thanks to continued support from the Scottish Government, for Levels 2-6, and additional support from Ocean Winds, for Level 7, the programme is free for all young people in Scotland ensuring full equity and inclusion for everyone.

We know that Scotland has a rich heritage in STEM, of course, but today we have world leading STEM research and industries on our doorstep. There are however skills gaps. More than qualification results alone, not enough young people are developing the skills and attributes needed to fully realise the potential of this sector. We are proud that The YSLP provides a pathway to inspire young people to lead STEM.

It supports them to build their STEM capital whilst developing their leadership and communication skills.



Gayle ThomsonProject Specialist YSLP



Rebecca Hands
Programme Administrator,
STEM Engagement



Learners across the country have been discovering more about STEM and associated careers, creating STEM activities and reflecting on Learning for Sustainability contexts (LfS), inspiring and leading others in our schools and communities. This approach already embodies the four capacities of the curriculum, which the emerging Curriculum Improvement Cycle (CIC) has at its centre. I whole heartedly support that 'all young people must have opportunities for personal achievement' [1]* and the YSLP offers exactly that.

Dr Sharon Macnab

Young STEM Leader Programme Manager



[1] Working Together to Make Change Happen, CIC, March 2025.

Introduction and foreword



As SSERC proudly celebrates its 60th anniversary, we take this opportunity to reflect on the milestones that have shaped our journey as a leading organisation in STEM education and professional learning.

Among these achievements, the development of the YSLP stands out as a transformative initiative – one that continues to inspire, empower, and elevate young people across Scotland.

Launched in response to the Scottish Government's STEM Education and Training Strategy (2017), YSLP has grown into a national success story. It has not only reached thousands of learners across diverse communities but has also played a pivotal role in advancing the widening achievement agenda, an agenda highlighted in the reviews by Withers, Hayward, and Muir. The programme exemplifies how targeted, inclusive opportunities can unlock potential and foster leadership through STEM.



Today, the YSLP spans seven levels, including:

- Three nonformal levels aligned with the Curriculum for Excellence (Second, Third, and Fourth Levels)
- Four formal levels mapped to SCQF Levels 4–7

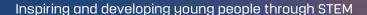
We are excited by ongoing discussions to extend the programme into Early and First Levels, further broadening its reach and impact.

I extend my sincere thanks to everyone who has contributed to the development and delivery of the YSLP – from educators and partners to the thousands of young people who have embraced the opportunity. Your feedback, enthusiasm, and commitment have shaped the programme into what it is today: a beacon of possibility and progress.

Here's to the next chapter of innovation, inclusion, and inspiration.

Alastair MacGregor

Chief Executive Officer, SSERC



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This report details the achievements and deliverables of the YSLP led by SSERC during the academic year 2024/2025.

For queries related to the content of this report, please contact Dr Sharon Macnab, YSLP Manager sharon.macnab@sserc.scot

Key achievements 2024/2025



"Fife Education champions the Young STEM Leader Programme because it empowers our learners to lead, inspire, and create inclusive STEM opportunities. It nurtures confidence, skills and ambition - helping young people see STEM in their lives and futures while enriching learning experiences and employability across our schools."

Gillian Eaves, Education Support Officer (STEM & Learning for Sustainability), Fife Council

What is the Young STEM Leader Programme?

The YSLP, is a learner centred approach which was born out of the STEM strategy. It embodies the philosophy that young people should be at the forefront of their STEM learning. The Award is free to access for all young people in Scotland, supported by the Scottish Government and delivered by SSERC.

This year the programme has expanded to include a Level 7 Award, thanks to generous support from Ocean Winds.

The YSLP is designed to enable young people to inspire, lead and mentor through the creation and delivery of STEM activities, events and interactions within schools, colleges, communities and youth groups. This approach has many benefits beyond building STEM knowledge and awareness.



Sets learning

in context

Boosts confidence and

enthusiasm for

STEM

Its FREE fully funded by the Scottish Government

Evidence gathered through

logs can be used: For assessment

To support Development Plans around STEM

To contribute towards Education Scotland's STEM Nation Award

learning, life and work

Building

skills for

Multiple levels from Level 2 (CfE Second Level) to SCQF Level 7 SCQF Credit, Insight and UCAS (YSL6 only) points at Formal Levels

Training for staff at a time that suits

No timeframe to complete

Award
underpinned
by professional
judgement and
direction

Delivery of the Young STEM Leader Programme to support learners

The YSLP is delivered across seven levels and supported by trained Tutor Assessors. Tutor Assessors are any educators in Scotland (PVG checked) who regularly engage with young people and who have undertaken a 2 hour training course, delivered by the YSLP Team.

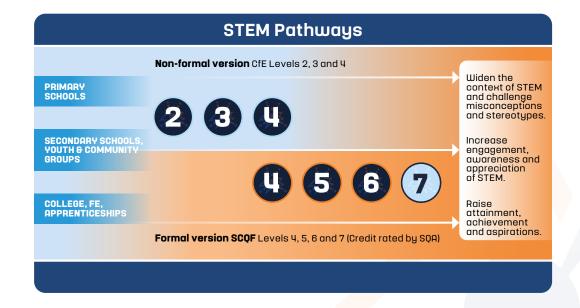
Tutor Assessors work with candidates to choose a YSLP Level that best suits their needs. Candidates can enter at any level and complete the programme(s) that best supports them. To complete each level, candidates must gather evidence which satisfies the Award criteria.

One of the strengths of the programme is that evidence can be presented in a way that works for the young person and whilst paper logs are available, young people can instead use a secure digital portal to write, add photos, upload videos etc. to show their evidence. This can be viewed and commented on by the Tutor Assessor.



This approach ensures the programme is fully accessible to all learners and learning styles and many ASN schools choose to engage with the programme in this way.

The programme is broadly divided into 'Nonformal' and 'Formal' levels however, at all levels participants are encouraged to discover more about STEM and use this as a platform to build other skills such as communication and leadership skills, important for lifelong learning.





The Non-Formal (NF) Programme

The non-formal programme is offered at Curriculum for Excellence second, third and fourth levels (known as YSL2, YSL3 and YSL4 (NF)). Each of these Awards is delivered through completion of four badges (Discover, Create, Inspire and Lead) around which participants build skills and knowledge.

These Awards are typically delivered in primary schools, the Broad General Education (S1-3) in Secondary schools and in community settings working with learners from second to fourth level (CfE).



In the Discover Badge

Young STEM Leaders (YSLs) will explore the meaning and importance of STEM. They will investigate the limitless context and applications of STEM, identifying the positive impacts and investigating the many current and future opportunities STEM holds for them. Discover does not need to be the first badge for YSLs but, it is an ideal place to start to set context.



In the Create Badge

YSLs put their planning skills and imagination to work. Creativity is everywhere in STEM and YSLs will design their own STEM activities. events or interactions what they will later lead. Considering the area of STEM they would like to share, its positive impact and the opportunities it offers are all part of the Create Badge. YSLs should also plan the audience who could benefit from their leadership and think about how to engage them in a safe and inspiring way.



In the Inspire Badge

YSLs explore what it means to be inspired and who or what inspires them. What type of skills, qualities and behaviours do inspirational people possess and how will the YSLs themselves demonstrate these when they deliver their activities, events or interactions? When YSLs have delivered their STEM activity, event or interaction, they will have a chance to reflect on it and ask others how inspirational it was and what they could perhaps do to improve their skills.



In the Lead Badge

YSLs are encouraged to think of leaders who have the skills, qualities and behaviours to make a difference to others, for example communication, cooperation, coaching, supporting and building confidence in others. The Lead Badge allows YSLs to build, develop and display their own leadership skills to deliver inspiration in STEM. Leadership activities may be face-to-face, but equally valid is leading STEM through a pod cast, a science poster or newsletter etc.

YSL2 provides great personal achievement opportunities for all pupils. The flexibility of the programme ensures it is inclusive of all learners. The YSLP addresses a range of meta-skills through pupil-led activities that allow them to share their personal interests with the wider school community. The support provided to staff from SSERC and the easy to use digital log book make the YSLP a hassle-free programme for staff to deliver.

Tim Dreyer, STEM & Learning for Sustainability Support Officer, North Ayrshire Council

The Formal (F) Programme

The formal version of the programme comprises four Awards at Scottish Credit and Qualifications Framework (SCQF) Levels 4, 5, 6 and 7 (YSL4(F), YSL5, YSL6, STEM Leader 7 SL7).



Levels 4-7

YSL4(F), YSL5, YSL6, SL7 are typically delivered in the senior phase of secondary schools, youth and community groups and a limited number of further education settings. The formal Awards consist of Learning Outcomes (LOs) which have associated evidence requirements. Each level is Credit rated by the SQA and learners achieve SCQF Credit Points for completing the Award, UCAS Tariff Points for YSL6, and the Awards are included on Insight for the Senior Phase.

Level	Specific themes	LOs	SCQF Credit points	Insight points	UCAS points
YSL4(F) SCQF 4	The impact of STEM and its ability to solve problems; Scotland's role in STEM	8	3	3	
YSL5 SCQF 5	Opportunities, pathways and futures in STEM; YSL's own potential in STEM	8	3	5.5	
YSL6 SCQF 6	Challenging stereotypes, misconceptions and outdated views in STEM	8	4	18.7	7
SL7 SCQF7	Generating and leading a project question; Analysing and presenting findings	6	6	51	

STEM Leader 7

During this past academic year, we have fully launched the STEM Leader 7 (SL7)



Programme. Part of the Young STEM Leader family, the Award in STEM Leadership (SL7) is generously supported by Ocean Winds and therefore the programme can be accessed for free by anyone in Scotland aged 16+ who is supported by a trained Tutor Assessor.



The Level 7 Award in STEM Leadership is delivered through six Learning Outcomes and enables candidates to:

- Identify, research and address challenges in STEM, linked to sustainability in a local, national or international context by developing and answering a project question.
- Set their project question in the context of existing research in the wider world by linking their work with an individual(s), group(s) or organisation(s) in the field.
- Share the results of the research question in a method of their choice such as report, scientific poster, podcast or video etc.

The benefit of enabling STEM Leaders to have choice, take ownership and direct their own learning means they develop as independent learners. The tasks consolidate leadership, communication, analytical and reflection skills. These are essential transferable skills for lifelong learning.

"STEM Leader 7 has helped me grow in confidence, particularly in leading activities and communication complex ideas to different audiences. I've developed valuable skills in teamwork, planning and problem-



solving and it's been rewarding to see the impact of my efforts on others. This experience has also deepened my passion for STEM and shown me how I can make a difference by sharing that enthusiasm with my community."

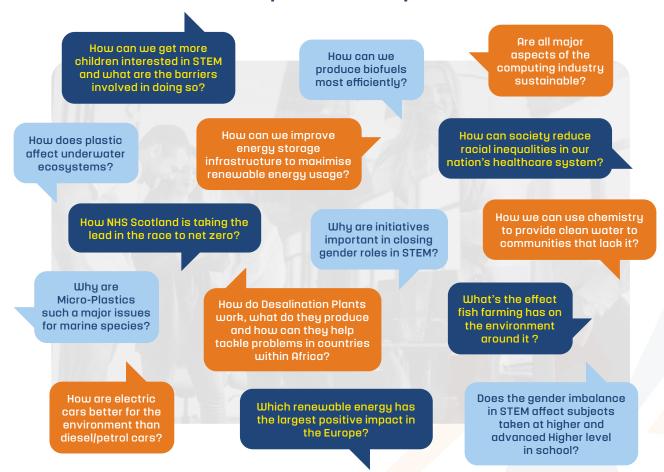
STEM Leader 7 Candidate

"Ocean Winds made an early commitment to support STEM education in Scottish Schools by partnering with SSERC. Part of the strength in that partnership has been SSERC's understanding of needs and opportunities. We therefore welcomed the chance to fund SL7, extending the well regarded Young STEM Leader Programme."

Mark Baxter, Caledonia Offshore Wind Farm Project Director

SL7s have been working to include information from campaigns, reports, literature or some with mentors in academia and industry to help set their projects in the context of the wider world. Over the reporting period, 70 candidates have completed the Award and undertaken research on a vast array of questions.

SL7 example research questions



Quality assurance

Quality assurance for YSLP takes place in two stages:

- Internal verification happens in-centre, between a Tutor Assessor and a nominated Internal Verifier. All centres must complete Internal Verification prior to applying for Award certificates.
- External verification is undertaken by SSERC at certification stage. There are a number of reasons that centres may be externally verified, but primarily the process is triggered when a centre submits Award certificate requests for a particular level for the first time, or when a centre submits certificate requests for a level that was previously Not Accepted during the most recent external verification for that level.

For 2024/2025 of the 84 Centres selected for external verification, 76% received an 'Accepted' result, 22% 'Accepted with Recommendations' and 2% received a Not Accepted result.

Clear feedback and guidance are provided to centres who receive a result 'with recommendations' or 'not accepted' to support their YSLP Award process going forward.

It is evident from the EV data that the quality of submissions through the IV process is extremely high and that Tutor Assessors and their Young STEM Leaders are working hard to achieve the standards of the Award.

Three possible External Verification results

ACCEPTED

The centre is applying the standards of the Award correctly. No major action(s) required.

ACCEPTED WITH RECOMMENDATIONS

The centre is applying the standards of the Award correctly. However, in some areas, recommendations will be made to improve practice.

Action should be taken prior to the next cohort.

NOT ACCEPTED

The centre is not applying the standards of the Award correctly.

Action must be taken prior to certification, and Awards can only be issued on successful completion of these actions.

Sanctions may be imposed for continual Not Accepted submissions, although this is very rare.

Staffing and governance

The Scottish Government-funded YSLP is led by SSERC. The Team is composed of a Programme Manager, a Project Specialist and a part-time Project Administrator. The Team works with Auto-Award and other partner organisations to coordinate the programme at a national level, including overseeing the training and quality assurance procedures, developing Award content and coordinating the Associate Regional Trainers and Verifiers (ARTAVs).

Associate Regional Trainers and Verifiers (ARTAVs)

The Associate Regional Trainers and Verifiers (ARTAVs) are a group of inspirational individuals with experience and expertise in delivering STEM Learning in Primary, Secondary, University, CLD

and ASN settings across the country. Working alongside the YSLP team, they play a vital role and are involved in 4 key activities:

- 1) Provision of training and other professional learning sessions for Tutor Assessors, both online and in-person, in their local area and as part of the national training offer.
- 2) Undertaking External Verification activity.
- 3) Providing ad hoc, ongoing support to Tutor Assessors within their specialist area.
- 4) Provide development support to the YSLP team in updating and/or developing new programme materials.

SSERC Board of Directors and Trustees

CEO SSERC

YOUNGSTEM

Other partner organisations

Project Team

Programme Manager

Project Specialist

Auto-Award partners



Staffing and governance

Working together, the Young STEM Leader Team provide support to Tutor Assessors across the country at Local Authority and Centre Level and operate an open-door policy to support individual Tutor Assessors too.

Training

This year the YSLP and ARTAV teams collectively delivered 87 sessions to 825 delegates from schools and community groups across Scotland.

Professional learning sessions included:

- Information sessions:
 Introductions to the YSLP for practitioners and centres that are completely new to the programme (Levels 2-6 session and Level 7 session).
- Tutor Assessor Training: a two-hour session covering an overview of Award frameworks, assessment and quality assurance. Typically, these sessions cover the non-formal

programme (levels 2-4), the formal programme (Levels 4-6), or both. A separate Level 7 training session is available.

- How to Submit for Certification Training session serving as a refresher on this process for Tutor Assessors ready to finalise submissions of their YSL's Awards.
- Kickstart sessions: Refresher training for Tutor Assessors.
- Presentations and workshops presented by the SSERC and ARTAV teams e.g. at conferences, events, Local Authority meetings etc.

The YSLP and ARTAV teams have continued to offer bespoke Information and Training sessions to local authorities, clusters, schools and other organisations, supported by partners – in particular Education Scotland and the Awards Network.

SSERC is committed to ensuring that learners within every learning community in Scotland are engaged with the programme and there are no barriers for Tutor Assessors or Young STEM Leaders in accessing the programme.



Get involved

It's easy to get involved and deliver the programme by attending a FREE (up to 2 hour) training session (usually online).

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Participation

Awards issued during academic year 2024/2025

See Appendix 1 for a list of Certification Centres for 2024/2025 by Local Authority.

Award Level	Total Awards	
2 YSL2	2757	
3 YSL3	295	
YSL4 (NF)	372	4816
YSL4 (F)	614	Awards
5 YSL5	227	issued
6 YSL6	481	
7 SL7	70	



Case Study - Glasgow Life

The Young STEM Leaders programme offers an alternative route into STEM for young people put off by more formal, classroom-based approaches. The youthwork-based program, focusing on hands-on learning, collaborative problem-solving and creativity supports the development of investigative, teamwork and communication skills.

The opportunity to lead a STEM activity during an event for P3 pupils allowed the young people to overcome their worries and develop belief in themselves as STEM leaders. The young people have also welcomed volunteer STEM Ambassadors to several sessions, making them feel at ease and facilitating dialogue with the young people about their experiences working in or studying STEM.

Both high school groups successfully delivered a showcase event for around 30 primary 3 children in a local primary school. Even young people who had said they were "scared" or anxious about the event rose to the challenge and felt a huge sense of achievement afterwards:

"I really enjoyed going to the primary school and working with them, I was scared at first but really happy I done it." The children and young people's Science Capital [1] (their knowledge of Science and STEM, people working in STEM and their concept of it being



"something people like me do") has been increased by meeting the staff and STEM Ambassadors.

The Young STEM Leaders programme has gone from strength to strength, as it develops strong links and partnerships with both secondary and the associated primary schools.

Comments from young people in S2, Notre Dame High School

"I had fun making the air powered car."

"I enjoyed doing it, we did a lot of teamwork."

"The ballon rocket was fun and my favourite experiment so far. It was very cool."

Comments from young people in St Thomas Aquinas High School

"I learned about STEM negatives and how to overcome them, enjoyed today's session."

"It was fun, I learned how to work in a team building a balloon powered car."

"It was fun, I learned how to work in a team and communicate with others."

[1] What is science capital? - Transforming Practice

Participation

Pilot Programme with South Lanarkshire Council - Early Years Sector

South Lanarkshire Council Early Years sector (Cambuslang/Rutherglen) under the leadership of Mairead Maxwell (ELC Locality Manager) is a dynamic team determined to embed STEM Learning in the everyday settings of early years. The team were keen to:

- Encourage and build STEM Leadership in ELCs across their area.
- Provide an opportunity for ELC staff to engage in an Award as part of their CPD and gain an SCQF Credit qualification.
- To build and recognise STEM delivery in ELC settings.
- To challenge stereotypes and misconceptions around Science/STEM.
- To embed robust health, safety, and safeguarding in practice.

Scottish Government granted permission to enable practitioners with managerial responsibility in ELCs i.e. Nursery teachers, Establishment Heads and Regional Assessors to become trained as Tutor Assessors (TAs). A face-to-face training session was delivered within a central hub.

The Tutor Assessors then worked with the Early Years Workers within their settings to complete the 'Young' STEM Leader Programme at level 6. In this pilot year we have had 12 Early Years Workers successfully achieve their Young STEM Leader Award.

Feedback has been extremely positive from both Tutor Assessors and the Nursery Workers themselves. External



- Confidence and leadership practitioners grew in confidence to lead Science/STEM, were extremely enthusiastic about STEM and felt that they inspired colleagues.
- Professional recognition SQA Level 6 Award provided meaningful CPD and career progression opportunities.
- Improved pedagogy increased use of Science/STEM activities (woodwork, coding, sustainability, experiments).
- Child impact children showed greater curiosity, problem-solving, independence, and enjoyment.
- Parental engagement families replicated activities at home, strengthening home–school partnerships.
- Cultural shift Science/STEM increasingly embedded as core to early learning practice across settings.

"My colleagues were interested in what activities we were doing, particularly since science experiments don't take place often in the 2-3 playroom and it was interesting for parents and staff with how engaged the children were in the activities." - YSL6 ELC Candidate

"There is a gap in STEM education within the early years; hopefully, moving forward, this (Award) will be delivered to most practitioners and implemented within the setting. It was lovely to observe STEM with children under 2s; they love to investigate and explore." - TA from ELC South Lanarkshire

"For their CPD it gives them the opportunity to really get to spend some time developing their STEM area/idea's. It allows them to focus on a specific idea, progress it, evaluate it and determine factors that may have a positive/negative influence." - TA from ELC South Lanarkshire

Celebrating Young STEM Leader Week

The fifth annual **#YoungSTEMLeaderWeek** took place in October-November 2024. With a focus on celebrating curiosity as the driving force behind the YSLP. 'The Power of Curiosity' event ran from 28th October to 1st November with Young STEM Leaders (YSLs) across the country sharing activities and suggesting resources that could be used to deliver STEM activities. The idea was that other Young STEM Leaders across the country could be inspired to replicate these activities with their own audiences. The whole week encapsulated the YSLP philosophy, 'for young people by young people.'

Each day a new Young STEM Leader led activity was available with supporting resource sheets. Centres were selected to cover a broad geographical reach and diversity in sector type.

28 October - 1 November 2024
Young STEM Leader Week 2024
The Power of Curiosity

In addition to Young STEM Leaders being involved, STEM Ambassadors also supported. Many were interviewed or provided an engagement opportunity. These helped to highlight STEM career opportunities and possible pathways in various STEM fields.

Throughout the week Young STEM Leader and Tutor Assessors were encouraged to engage via social media #YoungSTEMLeaderWeek. There were more than 13 000 views of content on X with around 5300 people engaging with the young people's videos. Many other centres shared their own activities too.

Day	Delivering Centre	Торіс	STEM Ambassador and Topic
Monday	Our Lady of the Mission Primary, East Renfrewshire	The Red Cabbage pH Indicator Test In this experiment, YSLs showed us how red cabbage water can be used as a pH indicator.	Jess Taylor-McKaig, Scottish Sea Farms, told us about her role in salmon farming and her love of biology. Zoe Clark, Spire Natasha Cosgrove, BAE Systems Teachers were invited to a free Professional Learning session to learn more about the Scottish Space sector and exciting opportunities available to young people.
Tuesday	Livingston Village Primary School, West Lothian	Catapult Challenge YSLs showed us how to make and test a catapult and explored how different factors affect the path of the projectile.	Jamie Halls, RAF Pilot, shared his experience and learning journey in the RAF.
Wednesday	Govan High School, Glasgow	Can Lemons Power a Lightbulb? YSLs showed us the power of lemons in this electricity experiment.	Maria Gutierrez-Mecinas, University of Glasgow, shared the amazing work she is doing in pain relief research as a PostDoc.
Thursday	Argos Youth Centre, Fife	Lemon volcanoes Fizzy fun! Watch YSLs create lemon volcanoes with a colourful chemical reaction.	Simon Norris, MVV Baldovie, told us all about the energy from waste industry and had some great advice for Young STEM Leaders.
Friday	Montrose Academy, Angus Council	Science is magic! YSLs worked with light and perception and we watched as they made objects "disappear" using refraction.	Hali Joli, University of Dundee, shared her work in drug discovery.

Partnerships

The YSLP believes in supporting and building the STEM Learning Community in Scotland. The programme partners with many other organisations and Award programmes to ensure that young people engaged in excellent STEM Learning and leadership can gain support and additional recognition.

Auto-Award Partners

The YSLP team works closely with partners already delivering excellent STEM learning programmes to align the outcomes and criteria of the partner programmes, to the YSLP frameworks. This enables a Young STEM Leader Auto-Award to be given at the appropriate level. For this year, around 44% of Awards were achieved through participation in a partner programme, serving as an effective way to recognise the achievements of young people and promote the benefits of YSLP Awards.



- NORTH
 LANARKSHIRE

 North Lanarkshire Council
 Leadership Academy (STEM Leadership Academy (STEM) at National 5 carries an Auto-Award for YSL 5.
- North Lanarkshire Council Leadership Academy (STEM) at Higher carries an Auto-Award for YSL6.

East Lothian Council Foundation Apprenticeship in Scientific Technologies carries an Auto-Award for YSL6.







- FunSTEM Programme carries an Auto-Award for YSL2.
- Industrial Cadets Bronze Project carries an Auto-Award for YSL4 (Non-Formal).
- Insight Into Apprenticeships Programme carries an Auto-Award for YSL5.
- Industrial Cadets Gold Project carries an Auto-Award for YSI 6.
- Primary Class carries an Auto-Award for YSL2.
- Entry Class carries an Auto-Award UNITED KINGDOM for YSL3.
- Development Class carries Auto-Awards for YSL4, YSL5 and YSL6.
- Professional Class carries Auto-Awards for YSL5.



Schools Air Race Challenge carries Auto-Awards for YSL2 and YSL3.





FOUNDATION APPRENTICESHIPS

Aberdeenshire Council Foundation Apprenticeship in Scientific Technologies, carries an Auto-Award for YSL6.

#DigiInventors Challenge (Primary) carries an Auto-Award at YSL2.



Digital Health & Care **Innovation Centre**



Saturday school carries an Auto-Award at YSL3.

The Climate Smarter and Carbon Capture and Storage projects both carry Auto-Awards for YSL2.





Completing a Formal YSLP Award can satisfy the Skills and Volunteering component of a Duke of Edinburgh Bronze, Silver or Gold Award providing the activities take place over the prescribed DofE timescales.

Partnerships

Case Study - East Lothian Works

David Dickson shared his experience, 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 Young STEM Leader Award at SCFQ 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.



David Dickson

Education Support Officer (STEM), East Lothian Works

[1] What is science capital? - Transforming Practice

Partnerships

Young STEM Leaders (Foundation Apprenticeships)

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:

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 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



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

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

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 people's future pathways.

Other partners

Ocean Winds

Thanks to ongoing support from Ocean Winds the STEM Leader



7 Award is available free of charge to anyone aged 16+ in Scotland. The commitment from Ocean Winds has enabled around 70 STEM Leaders to engage with the Award in the first year of full launch.

Dynamic Earth

in the Oceans.

The Young STEM Leader Team
worked with the creative
Learning and Development
Team at Dynamic Earth and
together produced some extra badges that
Young STEM Leaders can engage with to learn
more about the science and careers routed

The 'Dynamic Earth' digital badges can be chosen by learners for interest, or to achieve their Discover badge. This badge is delivered through three online chapters and supported by Dynamic Earth staff and a range of experts working in various fields. This year over 90 Young STEM Leaders achieved their Dynamic Earth badge, fully completing the chapters.

The Institute of Physics (IoP)

Institute of Physics

loP Scotland, generously support young people engaged in the YSLP, to apply for a £100 grant to support an activity event or interaction that is delivered with a physics theme. This year £900 in grants were awarded to Young STEM Leaders in Primary, Secondary and CLD settings to support delivery of their leadership activities.

Education Scotland and the STEM Nation Award



completing the YSLP Award programme is a great way to contribute to the STEM Nation Award for your centre. We work closely with Education Scotland and their STEM Nation Award Programme (SNAP) which exists 'to celebrate, promote and build on effective practice in STEM education'. Any centre involved in delivering the YSLP will already be well down the road if fulfilling these aims and working towards their SNAP.

Partner with us and support the delivery of the Young STEM Leader Programme

As you'll see from this report there are many different ways to partner with YSLP to help engage learners with this inspiration Award in STEM Leadership. YSLP is all about building valuable attributes for life, learning and future pathways and we always welcome new ideas and partnerships.



PARTNER UP

Contact the team at YoungSTEMLeader@sserc.scot

YSLP beyond Scotland

The STEM Leaders programme in England continues to build momentum across the secondary education sector and community sector.

Now in it's fourth year, The Leadership Skills Foundation – via a joint venture project with SSERC – is supporting and empowering young people elsewhere in the UK to drive their future and become change-makers within their community.



"We know that STEM touches almost every aspect of young people's lives. And we know that they are curious about the world around them and the way the world works.



Working with our partner, SSERC, the STEM Leaders programme has been developed to include a mixture of theory and practical experience and encourages peer-to-peer learning in a way that develops students' self-belief, confidence and their ability to work as a team. From leading STEM activities and delivering sessions during class time to establishing extra-curricular or after-school clubs, learners are able to take that confidence into situations that will support themselves and others in their communities and futures".

Certification 2024/2025

List of certificates achieved per Local Education Authority.

Aberdeen City

Aberdeen Grammar School Hazlehead Primary School International School Aberdeen Lochside Academy St Margaret's School for Girls Stoneywood School Sunnybank School

Aberdeenshire

Aboyne Academy
Aboyne Primary School
Alford Academy
Banchory Academy
Banff Academy
Daviot School
Insch School
Kellands School
Peterhead Academy
Pitfour School
Portlethen Academy
Tipperty School

Angus

Arbroath High School
Birkhill Primary School
Borrowfield Primary School
Brechin High School
Carnoustie High School
Ferryden Primary School
Langlands Primary School
Lathallan School
Letham Primary School
Maisondieu Primary School
Montrose Academy
Southmuir Primary School
Whitehills Primary School

Argyll and Bute

Bowmore Primary School Lochdonhead Primary School Lochgoilhead Primary School Lochnell Primary School Ulva Primary School

City of Edinburgh

Boroughmuir High School
Bun-sgoil Taobh na Pairce
(Parkside Primary)
Echline Primary School
Firrhill High School
James Gillespie's High School
Newcraighall Primary School
St Augustine's High School
The Mary Erskine School
The Royal High School
Trinity Primary School
Wardie Primary School

Dumfries & Galloway

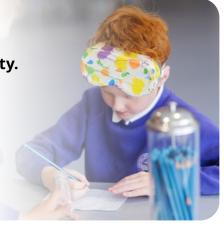
Kirkcowan Primary School St Joseph's College Wigtown Primary School

Dundee City

Rosebank Primary School St Andrew's RC Primary School St Paul's RC Academy

East Ayrshire

Kilmarnock Academy Loudoun Academy



East Dunbartonshire

Baldernock Primary School Bearsden Academy Bishopbriggs Academy Boclair Academy Douglas Academy Kirkintilloch High School Millersneuk Primary School Torrance Primary School

East Lothian

Dunbar Grammar School Knox Academy Law Primary School Musselburgh Grammar School North Berwick High School Preston Lodge High School Ross High School

East Renfrewshire

Busby Primary School Carolside Primary School Mearns Castle High School Williamwood High School Woodfarm High School

Falkirk

Graeme High School Larbert High School

Fife

Balwearie High School Beath High School Canmore Primary School **Duloch Primary School Duloch Schools & Community** Campus East Wemyss Primary School Fair Isle Primary School Kirkcaldy North Primary School Leslie Primary School Lumphinnans Primary & Community School Masterton Primary School Methil Community Education Centre Strathallan Primary School Viewforth High School

Glasgow City

Woodmill High School

All Saints Secondary School Bannerman High School Castlemilk High School Eastbank Academy Glasgow Gaelic School Glasgow Life Govan High School Hillhead High School Hillpark Secondary School Holyrood Secondary School Hyndland Secondary School **Jordanhill School** Kelvinside Academy King's Park Secondary School Lourdes Secondary School Smithycroft Secondary School St Andrew's Secondary School St Anne's Primary School St Margaret Mary's Secondary School St Mungo's Academy St Paul's High School St Thomas Aguinas Secondary School The Education Academy Scotland The High School of Glasgow

Wellshot Primary School



Highland

1st Culloden Brownies Culbokie Primary School Culloden Academy Dingwall Academy Dingwall Primary School Dornoch Academy Farr High School Fortrose Academy Lochaber High School

Inverclyde

Clydeview Academy St Andrew's Primary School (Greenock)

Midlothian

Lasswade High School Centre Stobhill Primary School

Moray

Buckie High School Burghead Primary School Elgin Academy

North Ayrshire

Kilwinning Academy Moorpark Primary School St Mark's Primary School St Winning's Primary School

North Lanarkshire

Baird Memorial Primary School Bellshill Academy Brannock High School Buchanan High School Condorrat Primary School Greenfaulds High School North Lanarkshire Council (Virtual School) Our Lady's High School (Cumbernauld) Plains Primary School Ravenswood Primary School St Aidan's High School St Margaret's High School St Patrick's Primary School (New Stevenston) Taylor High School

Perth and Kinross

Blairgowrie High School Crieff High School Kinross High School Viewlands Primary School

Renfrewshire

Bishopton Primary School
Castlehead High School
Fordbank Primary School
Gryffe High School
Kirklandneuk Primary School
Linwood High School
St Andrew's Academy
St Benedict's High School
Todholm Primary School

Scottish Borders

Ayton Primary School
Clovenfords Primary School
Eyemouth High School
Jedburgh Grammar School
Lauder Primary School
Peebles High School
Reston Primary School
St Peter's Primary School

Shetland Islands

Mid Yell Junior High School Whalsay School

South Ayrshire

Wellington School

South Lanarkshire

Biggar High School Biggar Primary School Calderglen High School Carluke High School Carstairs Primary School **Duncanrig Secondary School Greenhills Primary School** Halfmerke Community Nursery Hamilton College Lanark Grammar School Larkhall ELC Newton Farm Primary School South Lanarkshire Council St John Ogilvie High School Stonelaw High School Strathaven Academy Woodhill ELC

Stirling

Bannockburn High School McLaren High School St Modan's High School

West Dunbartonshire

Vale of Leven Academy

West Lothian

Broxburn Academy
East Calder Primary School
Inveralmond Community
High School
Kirkhill Primary School
Linlithgow Academy
Livingston Village Primary School
Sinclair Academy
Springfield Primary School
St Mary's Primary School
West Lothian College
Whitburn Academy
Winchburgh Academy





Contact





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