



## THE YOUNG STEM LEADER PROGRAMME

Inspiring and developing young people through STEM

# Annual Report

Academic year 2023/24

### Contact

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**YOUNGSTEM**  
Leader

led by



# Introduction and foreword



This year has been another hugely successful year for the Young STEM Leader Programme (YSLP) with over 5800 young people engaged in the Award for the academic year 2023/24. Thanks to the continued support from Scottish Government, young people across the country have been **discovering** more about STEM and associated careers, **creating** STEM activities, **inspiring** and **leading** others in our schools and communities across the country.

The programme has grown in numbers and reach across the country with every Local Education Authority in Scotland having trained Tutor Assessors available to support young people with their Award. Our pool of over 3000 dedicated Tutor Assessors enable young people, working from levels 2-6, to participate in the Award. Our successful pilot this year of STEM Leader 7, has opened the programme further to anyone aged +16.



Part of the Young STEM Leader family, the new Award in STEM Leadership at SCQF Level 7 has been generously supported by Ocean Winds and the successful pilot means the additional level is available to everyone for the academic year 2024-25, enabling wider access and accreditation across Scotland.

Connecting with partners is an essential part of the Young STEM Leader Programme and working with other providers of quality STEM Learning we've collaborated on new and existing programmes, growing the YSLP Auto-Award Scheme.

It's a privilege to work with so many talented Tutor Assessors and educators from a range of sectors across Scotland and to experience first-hand the fabulous work that our young people are leading across the country in STEM. They are exemplary role models and ambassadors for their communities. I look forward to seeing the programme expand and develop as we move forward with this learner centred approach to STEM.

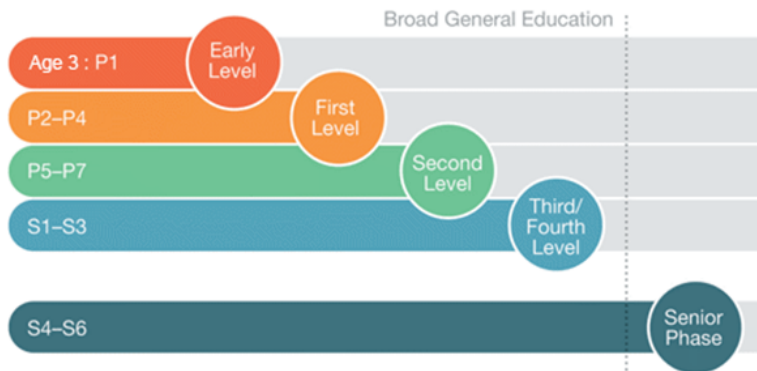
## Dr Sharon Macnab

Young STEM Leader Programme Manager

# Introduction and foreword



With the ongoing debate relating to the nature of the school curriculum moving forward, there is no better time to think about the benefits of adopting the Young STEM Leader Programme (YSLP).



Currently available at CfE Levels 2,3,4 and at SCQF Levels 4,5,6 and now 7, YSLP is rightly regarded as a core programme that supports the development of personal learning and achievement, also sometimes referred to as 'wider achievement'. Free from the point of entry, accessible to all and supported by a dedicated team at SSERC and a network of Associated Regional Trainers and Verifiers (ARTAVs) the programme offers opportunities to facilitate the development of peer STEM role models to inspire more young people to develop an interest in STEM.

As well as developing important personal skills that are increasingly in demand from employers, the programme encourages and supports Young STEM Leaders to progress their STEM studies and potentially embark on a related career in STEM.

We are grateful for the continued support of Ocean Winds during the roll out of STEM Leader 7 - the newest level in the YSLP family. Moving forward we can see benefit in developing YSLP at CfE First Level and would encourage external organisations to follow the lead of Ocean Winds and support the development of the programme at this level.

It is an exciting time ahead for the Young STEM Leader Programme as we aim to exceed the excellent progress made in 2023/24 as highlighted in this annual report.

**Alastair MacGregor**

Chief Executive Officer, SSERC

# Programme Overview

## 1. Introduction

This report details the achievements and deliverables of the Young STEM Leader Programme led by SSERC during the academic year 2023/24. For queries related to the content of this report, please contact Dr Sharon Macnab, Young STEM Leader Programme Manager [Sharon.Macnab@sserc.scot](mailto:Sharon.Macnab@sserc.scot)

## 2. What is the Young STEM Leader Programme?

The Young STEM Leader Programme (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 fore front 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.

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*The Young STEM Leader Programme will stimulate and strengthen the development of peer mentoring and inspiration in STEM for children and young people by children and young people.*

**SCIENCE  
TECHNOLOGY  
ENGINEERING  
MATHEMATICS**

Education and Training  
Strategy for Scotland

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.



## Benefits of the Young STEM Leader Award

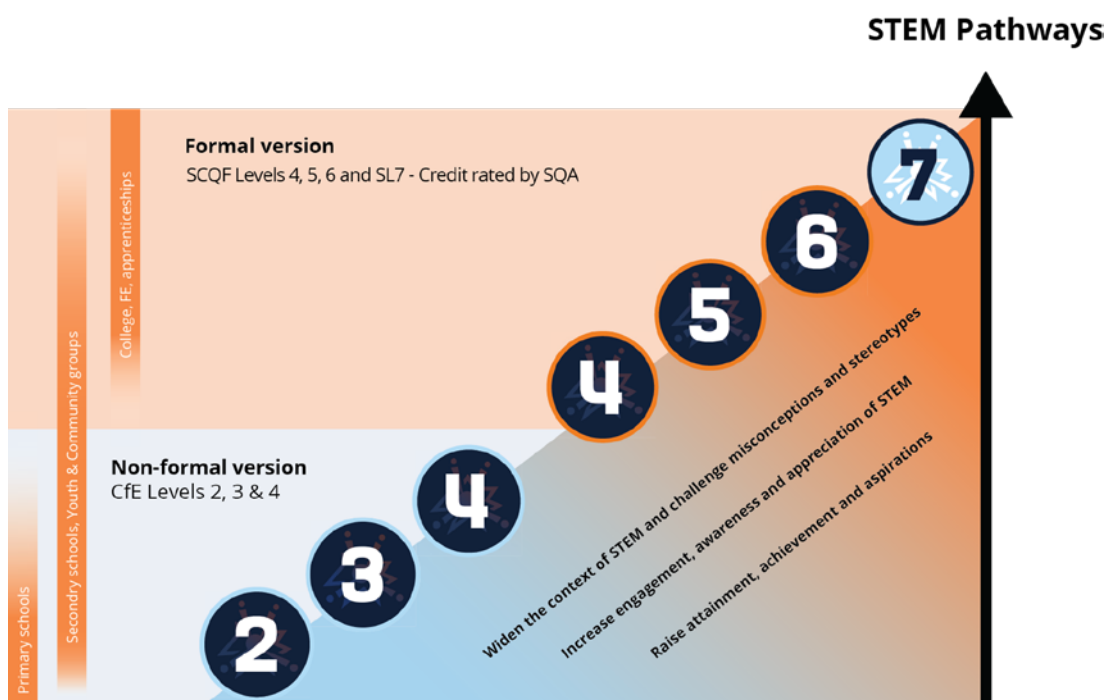


The Young STEM Leader Award:

- **builds interest and enthusiasm around STEM** as the young people themselves research and develop activities, enabling them to take ownership of their own learning and build an affinity with STEM.
- enables learners to present STEM in a style of their choice, **therefore building confidence and communication skills**.
- creates positive role models in STEM. By sharing their STEM learning, the Young STEM Leaders become inspirational role models, breaking down barriers and misconceptions around who can access STEM, **building Science Capital**.
- **sets learning in context** as Young STEM Leaders are encouraged to consider STEM and its place in the wider world, the influence STEM has on our lives and how we need to all consider our impact through the **Learning for Sustainability** themes.
- **enhances leadership skills**, as Young STEM Leaders research skills and qualities that they see in themselves and others, reflecting how to build upon these throughout their Young STEM Leader journey, encouraging the **development of valuable attributes for life, learning and future careers**.

## Levels of the Young STEM Leader Programme

The Young STEM Leader Programme is delivered across seven levels and to complete each level, candidates must gather evidence which satisfies the Award criteria.



The programme is broadly divided into 'Non-Formal' 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. The badges encourage young people to discover more about STEM and to consider what an inspirational leader or STEM Ambassador might look like. For example, what attributes might they have? What skills and qualities might they themselves develop to inspire and lead others as they create STEM activities to share?



“

*The best part of the YSLP were the people I got to work with because we got to work together on our communication and team working skills.*

### **- Young STEM Leader (Primary pupil)**

These awards are delivered typically in primary schools, the Broad General Education (S1-3) in Secondary schools, and in community settings working with learners at these curricular levels.

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*I have improved my leadership skills by preparing and presenting my STEM learning to parents.*

### **- Young STEM Leader (Community Group)**

## **The Formal (F) Programme**

The Formal version of the programme comprises four awards at Scottish Credit and Qualifications Framework (SCQF) Levels 4, 5 and 6 (YSL4(F), YSL5, YSL6). This academic year STEM Leader 7 (SL7) was piloted and this programme will be further discussed in the section below.

### **Levels 4 - 6**

YSL4(F), YSL5, YSL6 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 at these levels consist of eight Learning Outcomes (LOs) which have associated evidence requirements. Each level has its own broad theme and since these awards are on the SCQF, 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	
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	
					<b>UCAS points</b>
YSL6 SCQF 6	Challenging stereotypes, misconceptions and outdated views in STEM	8	4	18.7	7

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*We had to practice our lessons and teach each other first. That helped me feel more confident.*

**- Young STEM Leader (Secondary pupil)**

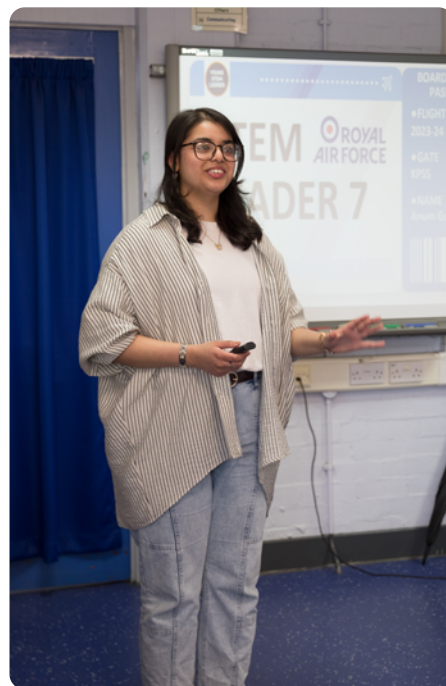




## STEM Leader 7

During this past academic year, the YSLP team have been working with a selection of centres to pilot the new SCQF Level 7 Award. This Award in STEM Leadership is called STEM Leader 7 (SL7) and is the current highest level of the Young STEM Leader Programme family. Due to generous support from Ocean Winds, the programme can be accessed for free by anyone in Scotland age 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 that are 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 choose, take ownership and direct their own learning supports the development of independent learners. The tasks consolidate leadership, communication, analytical and reflection skills. These are essential transferable skills for lifelong learning.

Award	SCQF Credits	Insight Tariff Points
STEM Leader 7 (SL7)	6	51

Over the pilot year 39 STEM Leaders completed the SL7 Award with research projects all taking account of the UN Sustainable Development Goals. Some examples of the project questions generated by STEM Leaders are listed below:

- **'How does employer engagement for biology students improve their outlook of employability in biology?'**
- **'Should we return to the use of Roman concrete rather than modern methods?'**
- **'Why is there no/low uptake in Physics for girls in our school?'**

## Benefits and Freedoms of SL7

**How I've developed:**

- ❖ Been given hands on experience with a self-led project.
- ❖ Built up confidence in reaching out to professionals to gather information and guidance.
- ❖ Learning how to fail and become resilient, slowly refining your overall scientific method.
- ❖ Found out how to mix passion and work together to become more productive.

**How this will impact my future**

- ❖ Gives me a much stronger personal statement because I have evidence of my passion for Science and Engineering.
- ❖ This gives me a greater goal I can strive for with not just further education but my career as a whole.
- ❖ Will help me make a real change with whatever you put my mind to.

**YOUNGSTEM**  
leader

Perspective of SL7 Candidate, Forfar Academy

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*“As a leader in offshore wind generation in Scotland Ocean Winds has recognised the need to invest in the next generation of skilled workers in Scotland to assist our own, our supply chain and government needs. We are particularly pleased to be the key industry partner in the development and roll out of STEM Leader 7. After much anticipation of a Level 7 course to build on the highly successful Young STEM Leader Programme series, we could see the potential and have been delighted with the positive reaction from the launch of STEM leader 7 and hope that students find it engaging and useful.”*

**- Ocean Winds UK**



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*SL7 was a fascinating programme to be involved in. This really helped me to get to know these pupils well, in terms of the issues that they felt were important to them. Having a free choice of topic helped with this and allowed them to read and research issues that they felt passionate about.*

**- SL7 Tutor Assessor**

### 3. Staffing and Governance



The Scottish Government-funded YSLP is led by SSERC in partnership with a number of STEM and young-people focused organisations across Scotland. The YSLP Team at SSERC is composed of a Programme Manager and Project Specialist.



*Supporting our Tutor Assessors across all our YSLP Delivering Centres in Scotland and seeing how our fantastic Young STEM Leaders engage, gain confidence and excel throughout our levels is an absolute privilege*

**- Gayle Thomson, YSLP Project Specialist**



If you have any questions about the Young STEM Leader Programme we are always on hand to help, answer questions and give support.

Contact [youngstemleader@sserc.scot](mailto:youngstemleader@sserc.scot)

The Team works with these partner organisations to coordinate the programme at a national level, including overseeing the training and quality assurance procedures, developing award content and coordinating the team of Associate Regional Trainers and Verifiers (ARTAVs).



### 3. Staffing and Governance (continued)

The team of 12 Associate Regional Trainers and Verifiers (ARTAVs) undertake YSLP quality assurance, deliver professional learning (locally, regionally and nationally) and are involved in providing direct support to the network of trained YSLP Tutor Assessors.

The remit of the ARTAV Team includes:

- Completing External Verifications
- Delivering YSLP Professional Learning, including Tutor Assessor Training, Information Sessions and Tutor Assessor Connections
- Supporting YSLP activity within their local area

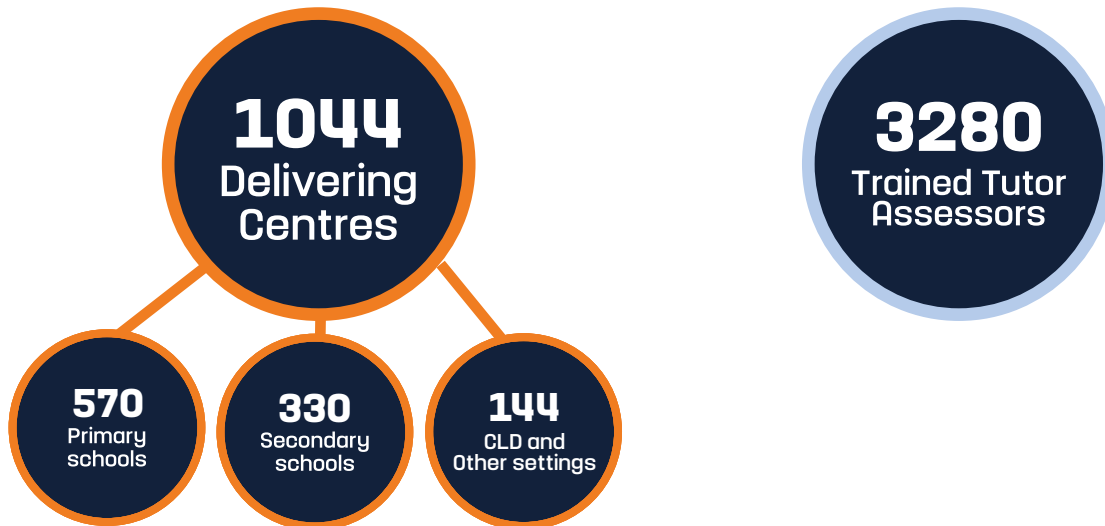
The ARTAVs are the life blood of the programme. Expert practitioners working across a range of sectors and regions, making a valuable contribution to the ongoing roll-out, implementation and success of the Award. More information about the YSLP staffing team can be found at [www.youngstemleader.scot/the-team](http://www.youngstemleader.scot/the-team).



## 4. Participation



It is estimated that over 20 500 Young STEM Leaders have engaged with the programme since its inception – around 5800 of those learners engaging in 2023/24. The programme is represented across each of Scotland's 32 Local Authority Areas.



### Awards issued during academic year 2023/24\*

Award level	Number of award certificates issued	Number of Auto-Awards	Total awards for this level
<b>2</b> YSL2	1108	1512	2620
<b>3</b> YSL3	235	12	247
<b>4</b> YSL4 (NF)	142	224	366
<b>4</b> YSL4 (F)	174	6	180
<b>5</b> YSL5	185	6	191
<b>6</b> YSL6	344	71	415
<b>7</b> SL7 (pilot year)	39	0	39

**2227**  
award certificates

**1831**  
Auto-Award certificates

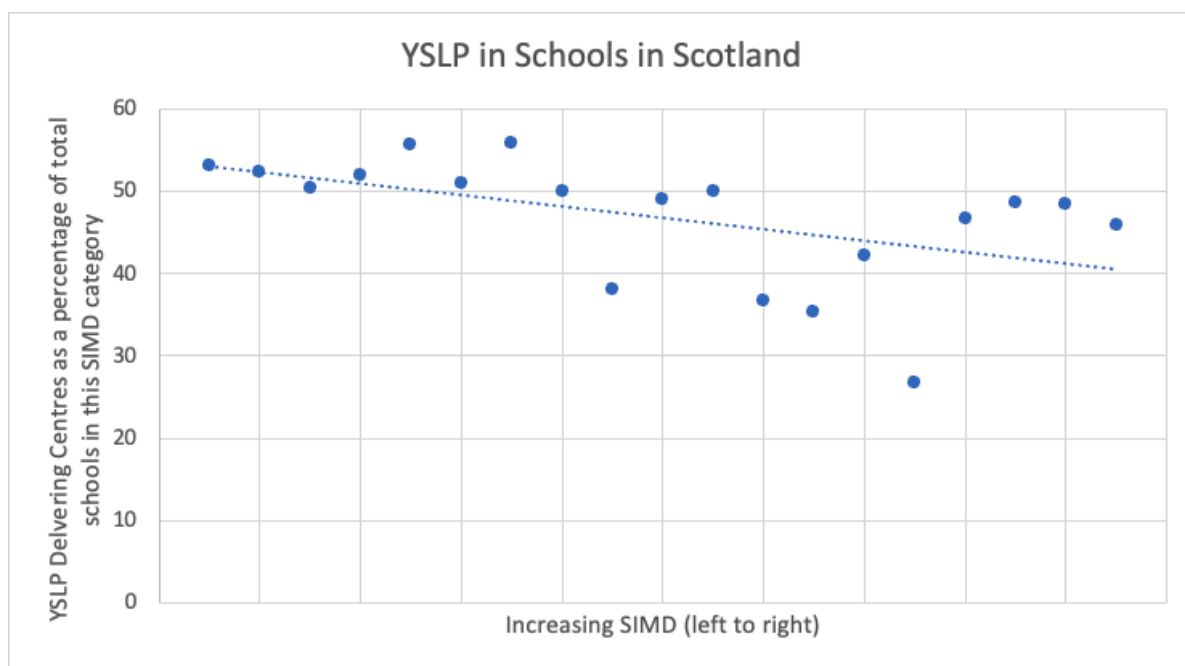
**4058**  
Awards issued

See **Appendix 1** for list of Certification Centres for 2023/24 by Local Authority.

\* not all Young STEM Leaders will fully complete the Award or complete it within a single academic year.

## Accessibility

The Young STEM Leader Programme is free and accessible to all young people in Scotland and it is important that there is equity of access. When comparing the YSLP school delivery centres against the Scottish Governments data, highlighting the proportion of pupils who live in the 20% most deprived datazones, it is clear from the graph below that there is little fluctuation from the most affluent areas (on the left) to those experiencing the highest deprivation (on the right). The trendline ranges from 52%-40% of centres engaged in the programme across the various datazones, confirming that there is consistency of centres accessing the Award across all SIMD sectors.



## 5. Training and Professional Learning



The YSLP and ARTAV teams delivered 66 Professional Learning events this session, attended by a total of 852 delegates.

Professional Learning sessions delivered included:

- Information Sessions: Introductions to the YSLP for practitioners and centres that are completely new to the programme
- 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, or both, and occasionally specialist sessions are offered for practitioners from specific areas, e.g. Primary teachers
- Tutor Assessor Connections: termly networking and spotlight sessions for Tutor Assessors
- Kickstart Sessions: Refresher training for Tutor Assessors
- Presentations and workshops presented by the SSERC and ARTAV teams eg 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 the RAiSE network and Education Scotland.

SSERC is committed to ensuring that learners within every learning community in Scotland are engaged with the programme.





# Young STEM Leader Week 2023

30 October - 3 November 2023

## Sustainable Steps



## 6. #YoungSTEMLeaderWeek 2023

The fourth annual #YoungSTEMLeaderWeek took place in October/November 2023. With a focus on the UN Sustainable Development Goals. 'Sustainable Steps' included activities, events and challenges to engage and inspire Young STEM Leaders and Tutor Assessors across Scotland. Over 1000 young people participated.

Each day a new themed activity was available with an accompanying 'Big Question' to ponder and answer in the centre or via X e.g. 'How sustainable is my community?'. On the final day Young STEM Leaders were encouraged to consider 'What one action can we take today that will kick start our sustainable development journey?'

Tutor Assessors were involved too with two face-to-face meet up activities taking place in high schools, focused on sharing practice and experience of the YSLP.

Monday	Tuesday	Wednesday	Thursday	Friday
Understanding the Sustainable Development Goals	Sustainability Superheroes	Sustainable Development Goals and our community	Global impact of the Sustainable Development Goals	Taking action for change

## 7. Auto-Awards and partnerships

The YSLP 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.

For this year, around 45% 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.

### 7.1 Auto-Awards

Award provider	Agreement
	<ul style="list-style-type: none"> <li>• North Lanarkshire Council Leadership Academy (STEM) at National 5 carries an Auto-Award for YSL5</li> <li>• North Lanarkshire Council Leadership Academy (STEM) at Higher carries an Auto-Award for YSL6</li> </ul>
	<ul style="list-style-type: none"> <li>• East Lothian Council Foundation Apprenticeship in Scientific Technologies carries an Auto-Award for YSL6</li> </ul>
	<ul style="list-style-type: none"> <li>• Industrial Cadets Gold Project carries an Auto-Award for YSL6</li> <li>• Industrial Cadets Bronze Project carries an Auto-Award for YSL4 (Non-Formal)</li> <li>• FunSTEM Programme carries an Auto-Award for YSL2</li> </ul>
	<ul style="list-style-type: none"> <li>• Primary Class carries an Auto-Award for YSL2</li> <li>• Entry Class carries an Auto-Award for YSL3</li> <li>• Development Class carries Auto-Awards for YSL4, YSL5 and YSL6</li> <li>• Professional Class carries Auto-Awards for YSL5</li> </ul>
	<p>Completing a Formal YSLP award can satisfy the <i>Skills and Volunteering</i> component of a Duke of Edinburgh Bronze, Silver or Gold award providing the activities take place over the prescribed DofE timescales.</p>
	<p>The Climate Smarter and Carbon Capture and Storage projects both carry Auto-Awards for YSL2</p>
	<p>Schools Air Race Challenge carries Auto-Awards for YSL2 and YSL3</p>

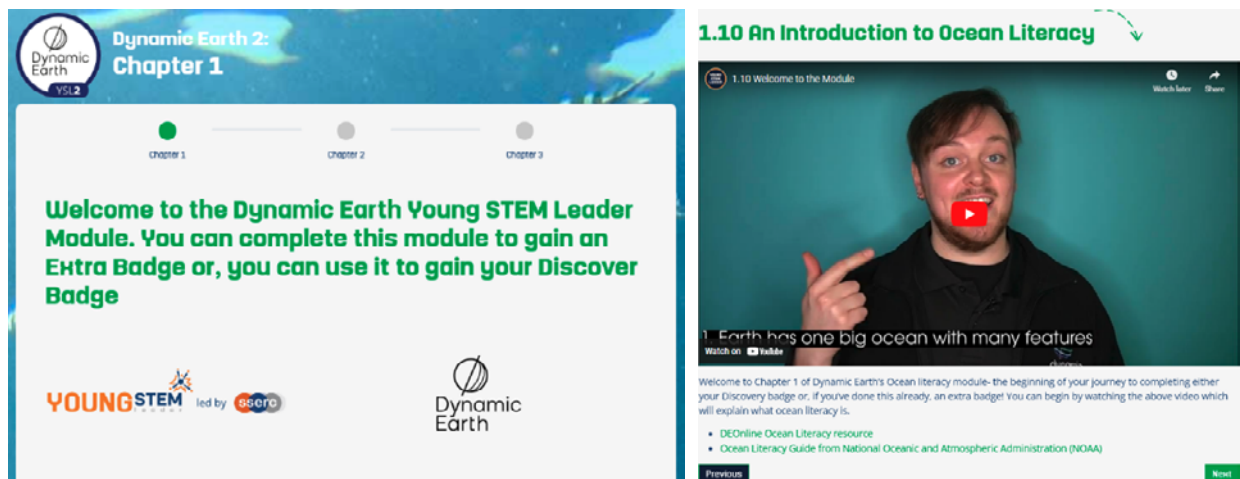
## 7.2 Our Dynamic Earth Partnership

The Young STEM Leader Team have been working with the Creative Learning and Development Team at Dynamic Earth and together have produced some extra badges that Young STEM Leaders can engage with. To complete the Young STEM Leader Programme at Non-Formal levels (2-4) learners work through 'Discover', 'Create', 'Inspire' and 'Lead' badges. There is now a 'Dynamic Earth' digital badge which learners can elect to do, for interest, or to achieve their Discover badge. This badge is delivered through three chapters and explores:



- Ocean Literacy - building knowledge about the ocean and thinking about our relationship with it
- The Ocean and STEM - thinking about how science and various STEM careers are linked to the ocean
- Ocean based careers - exploring stereotypes and opportunities

The programme is available on the YSLP online portal and the online content is delivered in an interactive and engaging way by the team at Dynamic Earth and a host of STEM experts in the field.





## 8. 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.

There are 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 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.

## 8. Quality Assurance (continued)

### Non-Formal External Verification Results 2023/24

Level	Completed EVs	Accepted	Recommendations	Not Accepted*
YSL2	36	28	8	0
YSL3	5	4	1	0
YSL4 (NF)	3	1	2	0
<b>Total</b>	<b>44</b>	<b>33 (75%)</b>	<b>11(25%)</b>	<b>0</b>

### Formal External Verification Results 2023/24

Level	Completed EVs	Accepted	Recommendations	Not Accepted*
YSL4 (F)	6	4	1	1
YSL5	20	18	2	0
YSL6	14	9	5	0
<b>Total</b>	<b>40</b>	<b>31 (78%)</b>	<b>8 (20%)</b>	<b>1 (2%)</b>

Clear feedback and guidance are provided to centres with recommendations and Not Accepted results to support their Young STEM Leader Awards 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.

\*Additional support will be provided by the SSERC Team to provide a pathway to an Accepted result.

## 8. Quality Assurance (continued)



### Award in STEM Leadership at SCQF Level 7

Following growing demand among the educational community for an SCQF Level 7 Award, with support of Ocean Winds and the SCQF Partnership, the Young STEM Leader team have been working in partnership to pilot STEM Leadership at SCQF Level 7. This new Award is designed for colleges, senior phase learners and community settings with a specific focus on Learning for Sustainability and the Sustainable Development Goals.

During the pilot year, 39 learners undertook a research project, with assessment being holistic and based on project outputs – rather than the traditional Young STEM Leader Log. However, this approach was not successful:

- Tutor Assessors fed back that it was difficult to assess and keep track of STEM Leaders progress against Minimum Actions required.
- STEM Leaders felt they were not sure if they were on track to achieve the Award
- Internal Verifiers found it difficult to track.

Candidates were awarded based on TAs and IVs professional judgement but moving forward to full launch, STEM Leader 7 is now delivered and quality assured using the more traditional approach of the Young STEM Leader family with an SL7 Logbook available to support.



## 9. YSLP Beyond Scotland

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



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*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.*



# Appendix 1: Certification 2023/2024

## List of certificates achieved per Local Education Authority

### Aberdeen

Bucksburn Academy
International School Aberdeen
St Margaret's School for Girls
Stoneywood School

### Aberdeenshire

Banff Academy
Daviot School
Fetterangus Primary School
Fishermoss School
Mackie Academy
Meldrum Academy
Monymusk Primary School
Peterhead Academy
Tarves School
Tipperty School

### Angus

Birkhill Primary School
Ferryden Primary School
Forfar Academy
Lathallan School
Liff Primary School
Monifeith High School
Montrose Academy
Southmuir Primary School
Whitehills Primary School

### Argyll and Bute

Lochnell Primary School
Rothesay Academy
Rothesay Joint Campus

### Dumfries and Galloway

Dumfries Academy
St Joseph's College

### Dundee

Braeview Academy
Claypotts Castle Primary School
Finty Primary School
St John's RC High School
St Paul's RC Academy

### East Ayrshire

Stewarton Academy
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### East Dunbartonshire

Baldernock Primary School
Bearsden Academy
Bearsden Primary School
Bishopbriggs Academy
Boclair Academy
Douglas Academy
Holy Trinity Primary School
Millersneuk Primary School
St Andrew's RC Secondary School
Turnbull High School

### East Lothian

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



# Appendix 1: Certification 2023/2024 (continued)

## List of certificates achieved per Local Education Authority

### East Renfrewshire

Barrhead High School
Carolside Primary School
Eastwood High School
Mearns Castle High School
Our Lady of the Missions Primary School
St Clare's Primary School
Williamwood High School
Woodfarm High School
Woodfarm High School supporting Escola Municipal Honorina de Carvalho, Brazil

### Edinburgh

Boroughmuir High School
Ferryhill Primary School
George Heriot's School
Merchiston Castle School
St Augustine's RC High School
St Joseph's Primary School
Stewart's Melville College
Trinity Academy

### Falkirk

Airth Primary School
Bainsford Primary School
Bo'ness Academy
Head of Muir Primary School
Larbert High School
Beancross Primary School

### Fife

Canmore Primary School
Carleton Primary School
Coaltown of Wemyss Primary School
Crail Primary School
Crossgates Primary School
Dulloch Primary School
Fair Isle Primary School
Kirkcaldy High School
Leslie Primary School
Lumphinnans Primary School
Masterton Primary School
Queen Anne High School

St Ninian's RC Primary School
Strathallan Primary School
Tulliallan Primary School
Waid Academy
Woodmill High School

### Glasgow

Bannerman High School
Glasgow Life
Hillpark Secondary School
Jordanhill School
King's Park Secondary School
Knightswood Primary School
Lourdes Secondary School
Notre Dame Primary School
Parkview Primary School (Glasgow)
Rosshall Academy
St Andrew's RC Secondary School
St Anne's Primary School

Holyrood Secondary School
Hyndland Secondary School
Lourdes Secondary School
Rosshall Academy
Smithycroft Secondary School
St Andrew's RC Secondary School
St Catherine's Primary School
St Thomas Aquinas Secondary School
Whitehill Secondary School

### Highland

Culloden Academy
Dingwall Academy
Farr High School
Fortrose Academy
Holm Primary School
Lochaber High School
Muirtown Primary School
Ness Castle Primary School

# Appendix 1: Certification 2023/2024 (continued)

## List of certificates achieved per Local Education Authority

### Inverclyde

West College Scotland
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### Midlothian

Gore Glen Primary School
Lasswade High School
Lasswade Primary School
Rosewell Primary School

### Moray

Alves Primary School
Elgin Academy
Keith Grammar School

### North Ayrshire

Kilwinning Academy
Lamlash Primary School
Moorpark Primary School
North Ayrshire Council - Family Learning

### North Lanarkshire

Bellshill Academy
Buchanan High School
Calderhead High School
Caldervale High School
Cardinal Newman High School
Condorrat Primary School
Cumbernauld Academy
Dalziel High School
Eastfield Primary School
Glengowan Primary School
Kilsyth Academy
New College Lanarkshire
Our Lady's High School (Cumbernauld)
Our Lady's High School (Motherwell)
Ravenswood Primary School
Sacred Heart Primary School
St Aidan's High School
St Helen's Primary School
St Margaret's High School
St Maurice's High School
St Michael's Primary School

St Patrick's Primary School
Taylor High School
Woodlands Primary School

### Orkney

Glaitness Primary School
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### Perth and Kinross

Pitlochry High School
Viewlands Primary School
Kinross Primary School

### Renfrewshire

Bargarran Primary School
Fordbank Primary School
Gryffe High School
Kirklandneuk Primary School
Our Lady of Peace Primary School
Park Mains High School
St Andrew's Academy

### Scottish Borders

Eymouth High School
Jedburgh Grammar School
Peebles High School
Selkirk High School
St Peter's Primary School
Trinity Primary School

### Shetland

Anderson High School
Whalsay School

### South Ayrshire

Doonfoot Primary School
Marr College

# Appendix 1: Certification 2023/2024 (continued)

## List of certificates achieved per Local Education Authority

### South Lanarkshire

Biggar High School
Biggar Primary School
Calderglen High School
Calderside Academy
Carluke High School
Carstairs Primary School
Duncanrig Secondary School
Holy Cross High School
Holy Cross High School
Lanark Grammar School
Lesmahagow High School
Mossneuk Primary School
St Andrew's and St Bride's High School
St John Ogilvie High School
Strathaven Academy
Trinity High School
Uddingston Grammar School

### Stirling

Dunblane High School
McLaren High School
St Modan's High School

### West Dunbartonshire

St Peter the Apostle High School
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### West Lothian

Broxburn Academy
Cedarbank School
East Calder Primary School
Inveralmond Community High School
Kirkhill Primary School
Linlithgow Bridge Primary School
Livingston Village Primary School
Polkemmet Primary School
Sinclair Academy
Springfield Primary School
St Kentigern's Academy
St Margaret's Academy

St Nicholas RC Primary School
West Lothian College

## Appendix 2:

Case Study of the Young STEM Leader Programme, delivered in St Mark's Primary School, East Renfrewshire and written by Caroline Collins, Principal Teacher of STEM, Wider Improvement Team, East Renfrewshire Council.

### Rationale

The intention of this project was to enhance the STEM Capital of learners in St Marks Primary, Barrhead, East Renfrewshire by providing them with the opportunity to develop leadership skills through STEM and improve their confidence, knowledge and understanding of STEM subjects.

St Mark's Primary in Barrhead was seeking an innovative, creative and effective approach to engaging learners in STEM education. They were keen to provide them with leadership opportunities. The school's improvement and planning process identified the need to provide equitable experiences for all learners to ensure every learner develops key skills for life, learning and work. They are wholly committed to enabling the children to "flourish in a climate of high expectations, innovation and creativity".

### The Approach

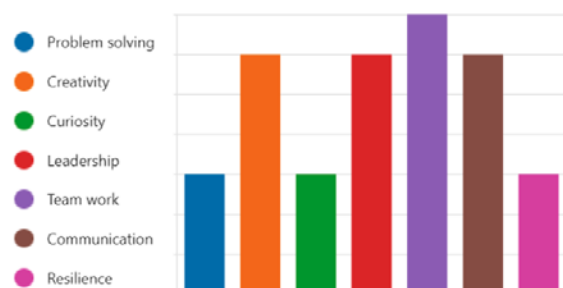
The Young STEM Leaders recorded their progress and evidence in their online Logbook which was regularly assessed by the Science Champion. The increase in confidence and the development of STEM and Meta skills were evident in all Young STEM Leaders. Learners developed their knowledge and understanding of STEM concepts along with skills in Literacy and Health & Wellbeing.

A further intention of offering learners access to the Young STEM Leader Programme was to raise awareness of the importance of a gender balance in STEM. This initiative was successful in increasing the uptake of girls in STEM based activities. 64% of learners who completed the award were female.

An equitable approach was taken when selecting the learners who applied to attend the STEM Club. The YSLP aligned with St Mark's priority of developing STEM teaching and learning, as detailed in the School Improvement Plan. It also supported the launch of their 'Values into Action' programme and embedding of the 'Make Your Mark' achievement award involving a progressive range of signature learning experiences linked to the curriculum rationale.

### Impact

When asked what skills they developed by taking part in the Young STEM Leader Programme learners answered:



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*Their high level of engagement, motivation, and enthusiasm for the programme was evident. The learners first-hand accounts provided valuable perspectives on how the programme has nurtured their passion for STEM and developed their leadership skills.*

- Caroline Collins, Principal Teacher of STEM, Wider Improvement Team, East Renfrewshire Council

