

# **STEM Grant Programme** Case Studies



#### Case Study Royal Society of Chemistry



194		60	14	120
Overall number of participants/attendees		Primary Transition	Mentoring for Early Career Chemistry Teachers	Secondary Chemistry Career-long Professional Learning
18		8	3	7
Total number of sessions		Primary Transition	Mentoring for Early Career Chemistry Teachers	Secondary Chemistry Career-long Professional Learning

### Rationale, objectives and targets for the project

The Royal Society of Chemistry (RSC) supports access to "a high quality chemistry education that is engaging, inspiring and relevant". The RSC project sought to extend the reach of three of its education programmes.

- Primary Transition supporting primary and secondary school teachers in the P7-S1 transition – notably primary school teachers to increase their confidence in chemistry teaching.
- Mentoring for Early Career Chemistry Teachers – to recruit and pair mentees in their first five years of teaching.
- Secondary Chemistry Career-long Professional Learning – to focus on CLPL for chemistry teachers, particularly in more rural areas, to increase their confidence and ability with CLPL sessions supported by online resources.

#### Delivery model, learning mode and content

**Primary Transition** used a cluster approach to workshops, bringing S1 and P7 teachers together allowed for sharing of equipment and ideas, and facilitated knowledge exchange and joint planning.

**Mentoring training** was available to all mentors, including a session on ways to support teachers in addressing inequalities. In addition, all schools/ teachers unable to attend training events were offered in-school or online training.

Secondary Chemistry Career-long Professional Learning courses were delivered via schools individually, by schools working with local authorities, and by colleges and universities offering ITE. Demand was high, so RSC ran a two-day training course to train new Teacher Developers to run courses independently. Teacher participants were also given free access to RSC web-based courses for the lifetime of the project.



## Case Study Royal Society of Chemistry



### Impact on Practitioners and learners

Feedback on **Primary Transition** indicated that primary teachers felt more confident in providing science for their learners and built relationships with cluster colleagues. Teachers involved felt that the RSC project work has supported the provision of more science within their school, and that it will also support learners in their transition from primary to secondary school. **"valuable Career-long Professional Learning for these teachers"** 

For **Mentoring**, those participating found the process personally beneficial, with mentees feeling supported, and more confident as a result of the mentor. Early stage career chemistry teachers value the support of an established and experienced chemistry teacher and mentors found it useful for their own professional development and refreshing their own teaching practices. **"Benefited greatly from their mentor, and were very happy with the training"** 

Secondary Chemistry Career-long Professional Learning feedback indicates that this has been a useful project for them, in particular, that the CLPL sessions can be very much used in the classroom. Many participants recorded appreciation of the new ideas for practical activities, demonstrations and the opportunities for networking and discussions with colleagues.

# Working with partners

The RSC project involved direct working with local authorities to access and engage school clusters, as well as direct working with schools through pre-existing RSC communication channels. There has also been RSC course hosting in Colleges and Universities, with Strathclyde University in particular supporting the 2-day training for teacher developers. The RSC has had the opportunity to draw on its established network of partners (notably in FE/HE) to support its work with primary and secondary school practitioners.

### Learning

- **Primary Transition** allowed RSC to see what works well in a school setting, particularly in supporting primary school teacher's confidence. Established relationships will make it easier to engage with schools/local authorities in the future.
- **Mentoring** With this experience, RCS now well placed to offer further mentoring opportunities in the future.
- Secondary Chemistry Career-long Professional Learning – There is a strong demand for workshop CLPL supported by online learning - this showed where additional RCS resource provision may be justified

A Career-long Professional Learning workshop for COP26 was developed, offered to all 9 clusters.

The RSC report that "the building of networks in the cluster was really valuable".



#### Case Study **2** Youth Scotland Workshops and STEM Toolkit

**564** Overall number of participants/attendees



## **The Project**

The Youth Scotland grant-funded programme is based on a series of workshops designed to upskill practitioners around the use of the organisation's Hi5 STEM Activity Toolkit. The Toolkit is designed to be used by primary-level practitioners to engage and inspire young people aged 5 years and older to undertake STEM-related activities.

#### Broadly, the programme set out to:

- Upskill teachers, practitioners, parents and volunteers to inspire children around STEM;
- Build STEM skills for learning, life and work;
- Raise attainment through STEM; and
- Provide STEM pathways in schools and the wider community.

### Target Groups and Engagement

The workshops were aimed at primary-level practitioners, including primary school teachers, CLD practitioners, as well as after-school club staff, and parents, volunteers and young leaders (including senior phase pupils). Workshops were also delivered in secondary schools, as well as to additional support needs practitioners and youth workers. The intention was to reach as wide a practitioner audience as possible and move beyond more formal teaching settings in order to drive STEM learning and development in communities.

### An Innovative Approach

The workshops were delivered face-to-face throughout Scotland by the Youth Scotland team. They took on a 'train the trainer' approach, wherein Youth Scotland staff introduced the Toolkit and its applicability within a STEM context before training practitioners to use it.

#### Role-playing exercises Fostering collaborative ideas Testing delivery

The workshops were scaled up to reach groups that can miss out on training opportunities due to rurality, such as those based on Orkney.



#### Case Study **2** Youth Scotland Workshops and STEM Toolkit



### The benefits for practitioners and learners

The project has generated a number of benefits for practitioners and learners alike.

- Practitioners fed back that the Toolkit is easy to use and adaptable and there is more opportunity for practitioners to develop their own STEM capabilities.
- The Toolkit encourages practitioners to think about the **process of teaching around STEM** and some had even undertaken more STEM CLPL as a result of the training.
- Practitioners highlighted an increase in their confidence around delivery of STEM lessons to young people, and opportunities for practitioners to share best practice ideas and experiences, leading to an increased awareness of STEM learning options in education settings.
- A key outcome from the programme was practitioners' use of the Toolkit in more disadvantaged areas and widen learning and understanding reach of the various STEM subjects.
- The Toolkit has engaged learners aged five and over and practitioners have noted increased intrigue around STEM themes, with children asking more questions and developing their creativity and problem-solving skills through practical activities.

### Working with partners

Youth Scotland was able to build upon an already well-established network of organisations as part of the programme, enabling collaboration with existing and new partners. Youth Scotland worked with Glasgow Science Centre to develop the Hi5 Award, which was incorporated into the Toolkit and can lead to an accredited Hi5 Award. Youth Scotland also worked with members including Youth 1st based in Fife to engage practitioners and youth workers and Paisley YMCA to deliver STEM Technology activities to young people, including 3D printing, vinyl cutting and coding clubs.

### **Key learning**

- STEM learning ultimately has to be guided by young people, with the Toolkit itself providing a template for activities that can be taught by practitioners.
- By delivering Toolkit workshops directly to pupils in schools, Youth Scotland was able to demonstrate the Toolkit in practice and showcase the high levels of interest it generates.
- Driven by the successes of the STEM Toolkit, there is potential for Youth Scotland to develop other Toolkits or expand the current STEM Toolkit for online use in the current climate.





# Case Study 3 Aberdeenshire Council 'Unlocking STEM in CLD'

120 +

Learners

### **The Project**

80 +

**CLD** practitioners

'Unlocking STEM in CLD' was sought to explore the relevance of STEM in community learning with Community Learning and Development (CLD) staff.

#### The objectives of the project were to:

- Engage with families to encourage learning and better understand STEM in everyday life;
- Help CLD practitioners identify and rely on STEM activity in broader CLD settings such as Youth Work and Parental Engagement; and
- Activities were to be delivered in a 'fun' way in which all types of learners could approach STEM. The project promoted the use of Appreciative Inquiry as the means to demonstrate the value of STEM.

### Target Groups and Engagement

The 'practitioner' target groups were CLD workers in Aberdeenshire and Aberdeen City. They were engaged through a series of workshops and online resources delivered by the Aberdeen Science Centre, and promoted by the Science Centre and the area-based CLD partnerships.

The 'learner' target group was families with children aged 4 to 12 years. The practitioners initially targeted families that they were already working with, resulting in a 50% take up. They also liaised with Primary School clusters and allowed teachers to speak to families they thought might benefit. Any other additional spaces were opened up to the wider public.

### Delivery model learning mode and content

The practitioner workshops delivered by the Science Centre involved the Appreciative Inquiry approach with demonstrations on how to complete activities with parents and children. These included fun experiments such as making slime with ingredients found in the home. The experiments were then combined into a 'lab book' resource for families with children, with instructions, explanations and the materials/ingredients needed to carry out experiments.

Given that many practitioners did not have a STEM background, the purpose of the workshops was to build their knowledge, skills and confidence to be able to deliver the STEM education to family learners. The families carried out the learning at local community centres under the guidance of the practitioner. The delivery of the learning was tailored to local needs, and there are plans to deliver 'pop-up' workshops in the more remote/smaller villages.

Prior to the COVID-19 lockdown, some science clubs had been set up by practitioners and delivered in local schools once per month. These intend to follow-on from the 'lab book', suggesting more experiments that could be done at home, inclusive for all more families.



#### Case Study **3** Aberdeenshire Council 'Unlocking STEM in CLD'

### Impact on practitioners and learners

The project has generated a number of benefits for practitioners and learners alike.

• The training has had a strong positive impact on the **confidence and self-esteem** of the practitioners to be able to deliver STEM education to learners.

*'without the workshops and training I would have had much more anxiety around the subject... it helped to consolidate why we were doing it'.* 

- The learner workshops have impacted the learners' understanding of science in everyday life and their ability to explain science to others.
- The workshop format allowed learner families to meet one another and expand their peer support network and parent learners with a strong STEM background gained a fresh new perspective for teaching and promoting STEM subjects.

### Working with partners

The project has been a partnership between Aberdeenshire Council, Aberdeen City Council and Aberdeen Science Centre, strengths of previous collaborative working was a key reason for the success of the project.

The partnership was successful because STEM is so broad that it can be tailored to local needs, for example, focused on inexpensive and simple science experiments in areas of high deprivation and low attainment. Each partner therefore feels that they are getting something out of it.

The project has potential scalability. Project staff are currently creating an online staff training resource (largely podcasts) to share with CLD workers across the Northern Alliance, consisting of the 8 local authorities.

### Learning

Key success factors and learning have included:

- Being a cross-authority project: delivering the project across two local authorities and training them together allowed them to benefit from greater peer support, maximise knowledge sharing and widen their networks.
- Having the practitioner training delivered by an expert from Aberdeen Science Centre gave it validation, allowing the practitioners to ask questions and join in the experiments.
- Keeping the activities and experiments fun has improved engagement with children and parents, as well as making STEM appear non-threatening for practitioners and learners.
- The opportunity to carry out practical experiments with provided materials made the learning 'hands-on' and eliminated any cost barriers to parents needing to provide materials themselves.
- Using digital platforms to create and share resources across the Northern Alliance has scaled up the project and made resources accessible to a much wider pool of practitioners.



#### 4 Case Study Scottish Childminding Association



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## The project

The Scottish Childminding Association (SCMA) has a membership of c.4,500 registered childminders throughout Scotland, with very high levels of engagement. Childminders are sole workers and so rely heavily upon SCMA as a support network. The project was to develop and deliver a range of professional learning courses and workshops to promote STEM learning for childminders and equip them with the skills and confidence to engage in STEM education, to 'bring STEM to life' for practitioners and learners.

# Target groups and engagement

The project was promoted to all SCMA members through monthly e-bulletins, social media and 'network meetings' throughout Scotland. SCMA also undertook a short survey of members highlighting an appetite for handson, practical and interactive STEM training amongst members. The content was created for children at the early stages of the Curriculum for Excellence, aged 3 to 6 years, from Early Years to Primary One, although it can be adapted for use with younger or older children.

#### Delivery model, learning mode and content

A key aspect of the project was the partnership between SCMA and the Scottish Schools Education Research Centre (SSERC) to plan and develop the delivery, content and materials. SSERC then delivered a full-day of hands-on 'train the trainer' style training with SCMA trainers. Two courses were developed:

- 1. Introduction to STEM: STEM and the Senses
- 2. STEM and Outdoor Learning, and Science Enquiry Skills

The delivery of the two courses to practitioners was through: interactive workshops; e-learning; and activity resource packs. The creation of interactive workshops was a new delivery method. Allowing childminders to engage through either online or face-to-face learning has increased its accessibility to SCMA members across Scotland, whilst e-learning was the main focus and tool for reaching practitioners.

They have provided practical resources for home learning activities, which is ideal for the childminder target group.

#### 4 Case Study Scottish Childminding Association

### Impact on practitioners and learners

The SSERC training has helped to give SCMA trainers the understanding of how the course content links with the Curriculum for Excellence and the confidence to deliver training to practitioners.

For the **practitioners** (childminders), the interactive workshops and e-learning have helped give them the confidence and skills to complete activities with the learners, some in which they were already delivery without realising it was STEM learning.

'the training has added to my whole understanding of the benefits of STEM to children, through talking to them and to parents'.

For the **learners** (both parent and child), parents would oversee the childminders doing the STEM activities with the children and would then replicate this themselves. Parents would also approach practitioners with additional ideas for STEM resources and activities that they could use with the children, showing the parents to be fully bought in to the process.

### Working with partners

The partnership with SSERC was effective. The project utilised SSERC's expertise in creating STEM content for practitioners and delivering upskilling training to SCMA's trainers. At current, SCMA is working with the Scottish Government to develop a free online learning model for Early Years practitioners, part of which will include STEM learning. This will be mutually beneficial, with both parties able to support each other with STEM materials.

### Learning

- The **multi-learning approach** has helped increased accessibility for childminders (i.e. delivering e-learning, interactive workshops and preparing resource packs).
- **Promotion on many different platforms** has helped to continually keep STEM at the forefront of CLPL for childminders.
- An organisation with a national reach and strong links to its members is an effective delivery model for **maximising reach for STEM training.**
- Practitioners have continually shared new activity ideas with one another. The project has acted as a **STEM resource-sharing forum** for SCMA members. SCMA are now looking to continue this legacy by accrediting the STEM learning with the SQA.

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## **5 Dynamic Earth 5 Creative Science online**

**3** Online creative science courses 517 Online participants

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142 Event attendees

### Rationale, objectives and targets for the project

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Dynamic Earth's STEM-funded project is designed to increase access to innovative career-long professional learning (CLPL) for primary practitioners. Dynamic Earth adapted its Creative Science interdisciplinary CLPL workshop for online use to broaden the reach of the programmes, with the workshop and learning closely aligned to three central aims of the STEM strategy, including capacity building, inspiring engagement among children and young people, and closing equity gaps in STEM.

90% of participants noted the workshops were 'very good' with 97% stating the training was 'very useful' in providing activities and resources to develop practice, with the same number stating they planned to use the activities in their own settings. SSERC Survey

### Target Groups and Engagement

The key target groups for the Creative Science online programme were primary practitioners were, notably primary school teachers plus additional support needs practitioners and CLD staff. The activities and learning content of Creative Science online was designed predominantly for children aged 7 to 12. Practitioners were made aware of the Creative Science module at networking events such as the Scottish Learning Festival in 2018, as well as other launch events. Dynamic Earth also used social media as a promotional tool along with direct contact with schools and teachers and existing school networks such as RAiSE.

### Delivery model, learning mode and content 🛛 <del>×</del>

Dynamic Earth's online project was developed across two phases.

**Phase 1** saw the **facilitation of workshop sessions** at Dynamic Earth which brought together primary practitioners from across Scotland to discuss the content of the existing face-to-face Creative Science programme and how this could be adapted for online. A focus group of 20 primary teachers and practitioners was held to narrow down the focus of the earlier workshops and identify exactly what primary practitioners required and expected from the online CLPL.

Phase 2 saw the creation of the Creative Science programme itself and hosted on the Moodle platform. Creative Science online was initially delivered to practitioners over the course of four weeks, with new learning content released each week for practitioners to review and use with pupils. The fourth week was built around a group webinar session to provide practitioners a platform to feed back to Dynamic Earth on their experiences.

One of the key aspects of Dynamic Earth's STEM learning is its online platform, which has made the learning accessible to a wider range of practitioners

## **5 Dynamic Earth 5 Creative Science online**

than before. Practitioners have noted that the networking and social aspect of the online resource has been useful in terms of sharing best practice ideas and keeping updated on activities undertaken by other practitioners, something that is often not achievable following face-to-face workshops.

### Impact on practitioners and learners

Benefits and outcomes of Dynamic Earth's Creative Science online module have been significant for practitioners, as well as their learners:

- Improved ease of access to CLPL training online has allowed access by a wide range of primary practitioners, with 30 of Scotland's 32 local authorities using the resource.
- Practitioners can gain access to a wider variety of STEM training and learning, and have been able to do so in a more time-efficient and flexible manner. The Creative Science activities can be used across all primary age groups, meaning more learning opportunities for young people;
- A key outcome of accessing Creative Science online has been increased practitioner confidence across STEM topics as well as teaching methods;
- Following their own initial use of Creative Science online, some practitioners have shared their knowledge of resource with their school colleagues, leading to more STEM CLPL engagement and greater opportunities for sharing ideas;
- Practitioners found that pupils were highly engaged in the activities set out by Creative Science online and the STEM topics; and
- An unintended consequence of Creative Science online has been improved digital literacy among some practitioners and more confidence in using online resources.

### Working with partners

Dynamic Earth formed partnerships to support both the creation and delivery of their Creative Science programme. University of Edinburgh eLearning consultants were part of the support and guidance process in developing and adapting content for online consumption. Science Ceilidh in Edinburgh, a company that delivers creative Ceilidh dance workshops based on simple STEM themes adapted to be online for Creative Science.

## Learning

- Enabling practitioners to offer 'real-time' feedback on their experiences using the online platform is very useful, particularly in terms of accessing the resources, navigating the activities, understanding the content and utilising their learning with learners.
- Creative Science was developed with the primary audience in mind, notably children aged between 7 and 12 years old. Feedback from practitioners has been positive in terms of application and engagement from their pupils.
- The online component of Creative Science was a significant positive highlighted by practitioners through survey feedback and consultations, and more online content would be welcome and engaged with.
- Creative Science online has shown to generate more engagement through accessibility, with practitioners from almost all Scottish local authorities using the resource, therefore the development of more online resources can capitalise on this success and widen engagement.

#### Case Study 6 Glasgow City Council Primary STEM Leaders; STEM in a Context

#### **Primary STEM Leaders**

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## The project

The Glasgow City Council's project had two strands, namely, the STEM Glasgow's Primary STEM Leaders (PSL) programme, and STEM in a Context workshops and other resources, developed and implemented across two phases:

**Phase 1:** Identified and confirmed three local authorities to participate in the PSL programme; extended STEM in a Context 'Train the Trainer' workshop to all other local authorities; developed a training programme, including dates for workshops and venues across local authorities; and confirmed partners to support with the delivery of the programme.

**Phase 2:** Promoted and developed the PSL programme; delivered a West Partnership Regional STEMinar event; and facilitated additional STEM in a Context programmes to local authorities not part of the PSL programme, with workshops and resources exploring STEM themes.

### Target groups and engagement

The programme was intended for practitioners in primary school settings, with both the PSL programme and additional STEM in a Context sessions delivering CLPL for teachers. Resources were designed to be used across P1 to P7 in schools were made available. The engagement took place within each primary setting, led by PSLs delivering CLPL training to other practitioners. Engagement was also driven through the West Partnership Regional Improvement collaborative, where a peer-led network of primary STEM practitioners shared best practice, resources and support across local authorities.

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#### Case Study 6 Glasgow City Council Primary STEM Leaders; STEM in a Context

# An Innovative approach

#### **Primary STEM Leaders programme**

The PSL programme built on the successful programme already delivered across Glasgow, with delivery extended to three additional local authorities (East Dunbartonshire, East Renfrewshire, and South Lanarkshire). Schools were recruited through a cluster approach.The CLPL element gathered practitioners to undertake activities around STEM subjects and issues such as gender balance and science health and safety. Non-Glasgow City Council providers delivered some aspects of the PSL programme.

Content was driven by the needs of the PSLs across the local authorities, with teachers identifying CLPL in STEM skills, pedagogy and specific subjects – including coding, which led to the development of a coding workshop for practitioners using BBC micro:bit resource. Courses were adapted and tailored to the needs of each local authority.

#### **STEM** in a Context

STEM in a Context was developed as a mechanism for non-PSL schools to benefit from the latter programme's CLPL. The sessions were delivered through a 'Train the Trainer' model and were made available to all other local authorities in the West Partnership region. PSLs were able to attend.

Held in geographically convenient venues to maximise accessibility for primary teachers, the twilight sessions were based on newly-created STEM resources using five different activities for practitioners to engage with and take back to their setting. Workshops were delivered by Glasgow City Council.

Materials were developed specific to West Partnership local authorities, with resources used by practitioners at the workshops and then available for download thereafter for practitioners to use them in the classroom setting.

# The benefits for practitioners and learners

Both strands of the project had a positive impact on practitioners and learners:

- **Increased confidence** for teachers in understanding STEM themes, delivering training to colleagues and adopting new STEM teaching approaches with pupils.
- Practitioners also reported **increased passion** for new ideas around STEM teaching and learning as a result of the varied workshop topics and activities and children were **highly engaged** in the practical activities.
- Ready-made resources for practitioners following each workshop session has freed up more time for practitioners to not only teach STEM to their pupils, but also to deliver training based on the resources to other colleagues in their school setting. Practitioners noted that PSL resources are relevant to the learning contexts in each of the three local authorities, while STEM in a Context resources link effectively to the overall curriculum.
- The STEM in a Context sessions in particular offered non-temporary teaching staff or those on probation the opportunity to **build their subject knowledge.**
- One of the key structural benefits of both strands had been the **development of organic networks** across the West Partnership region such as developing workable links and refreshing relationships with other practitioners.

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#### Case Study 6 Glasgow City Council Primary STEM Leaders; STEM in a Context

### Working with partners

Glasgow City Council have a well-established STEM presence within their organisation, including a preexisting PSL programme. In terms of delivery, they worked with a number of CLPL providers to deliver aspects of the workshop sessions to PSLs. Delivery partners included Glasgow Science Centre, STEM Ambassadors and Education Scotland, each facilitating a specific PSL session.

STEM in a Context course content was developed through three development sessions bringing together nine teachers to identify primary needs. Thereafter, sessions were managed and facilitated by Glasgow City Council.

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### **Key learning**

Key learning gained from the project are as follows:

- 1. Developing STEM content, CLPL and resources that are tailored specifically to local authorities is important in order to highlight local learning for children to see the links between their learning and their future prospects.
- 2. Networking approaches enabled greater accessibility to learning and training, as well as fostering new and innovative ideas. The cluster 'trickle down' approach was key across the Glasgow City Council programme in terms of developing relationships between local authorities and primary schools at workshop events, the sharing of best practice, and the subsequent delivery of CLPL by PSLs within their own school settings to other colleagues.
- 3. **Partnership working** through West Partnership has been key in identifying the needs of primary teachers. This was also key to the formulation of workshop sessions and resources to address those needs and increased knowledge of STEM subjects.

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### 7 Case Study New College Lanarkshire

## **The Project**

The project was to research, develop and launch, a bank of CLPL resources for Early Years, primary STEM leaders and targeted secondary teachers. Importantly, the project also sought to develop a new STEM unit for the early learning and childcare curriculum, acting as part of the training of Early Years practitioners' professional learning.

### Target groups and engagement

The project focused on Early Years practitioners and the youngest learners, as the Lanarkshire STEM Hub partnership (of which New College Lanarkshire is a key partner) recognised that you should start with the very youngest learners and inculcate an interest in STEM as early as possible. In focusing on Early Years and primary practitioners, New College Lanarkshire sought to help practitioners think about STEM from a play-based learning activity perspective. In developing a new STEM unit for the early learning and childcare curriculum, students studying for an early years' education qualification were recruited to test materials developed, and to provide feedback and learning.

### Delivery model, learning mode and content

The pilot for the new STEM unit focused on experience and practical applications of STEM. The content/design was developed to reflect that many practitioners are doing STEM but they don't realise it - or that what they are doing can be regarded as STEM, if only they were able to think about it and frame it this way. The New College Lanarkshire approach was to try to open up each of the elements of STEM and introduce inquirybased thinking in Early Years/primary practitioners. The project utilised students on Early Years'

qualification courses who were out on placement. This was an innovative approach to unit development where practitioners' first-hand experience fed directly into the unit's development and finalisation. The approach was effective in gathering learning and developing the pilot.

### Impact on Practitioners and learners

The work placements students were surveyed, and New College Lanarkshire found that there was a mix in student ability to use the STEM content. Resources were refined to make the course content more adaptable in different environments, specifically across Early Years. The feedback has been very positive from students, who have welcomed the opportunity to put theory into practice in a supportive environment.

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#### 7 Case Study New College Lanarkshire

### Working with partners

The project was developed by the Lanarkshire STEM Hub Partnership, setting the direction for the project. The partners are New College Lanarkshire (lead), South Lanarkshire Council and North Lanarkshire Council (school curriculums), the University of the West of Scotland, Glasgow Caledonian University and industrial partners.

New College Lanarkshire worked closely with the Hub to develop and pilot the childcare unit, gathering partner views in the development phase, although content development was led by the College. North Lanarkshire Council were a key partner, given their prior involvement/championing of STEM.

## **Key learning**

- Other colleges have expressed an interest in the unit. A one-credit award has been found most appropriate, centred around policy, research and activity in practice. It will be SCQF levelled and become a national unit that any College can offer as part of the Level 6 curriculum, with possible further opportunities to develop a Level 7 unit within the HNC Framework.
- The use of students to help shape the approach and be open about their placement experience has been useful, and practitioners more widely are interested in the unit, now recognising potential as a valuable resource.
- The project has fuelled additional ideas from a regional perspective via the STEM Hub Partnership. Experiences have been shared, developing relationships and enabling the college to effectively use local authorities as sounding boards for CLPL resources.
- Allowed staff from the Science Team to do less teaching and design and develop content, and focus specifically on Early Years' Practitioners. It allowed for direct input and learning from placements into unit design, as an unusual approach.

"and we don't get a chance to do this too often"

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