

STEM Nation Award

Ian Stewart – Development Officer (STEM Nation Award)



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[STEM Nation
Award](#)



The STEM Nation Award and the Young STEM Leader Award Programmes have been developed with support and funding from the Scottish Government.

The STEM Nation Award Programme provides a focus for colleagues across a setting to work collegiately to identify, celebrate, promote and develop excellent STEM learning.





Benefits

The STEM Nation Award Programme addresses the key aims of the STEM Strategy for Scotland, to deliver Excellence, Equity, Inspiration and Connection in STEM education and training.

The structure of the Programme provides opportunities which allow settings to address many key priorities within the STEM context, including

- Closing attainment gap
- Closing equity gap
- Social Justice
- Gender balance
- GIRFEC
- Learning for Sustainability
- Green Skills
- STEM Skills
- UNCRC



The five elements

- For CLD settings, optionality built into **STEM learning in the community** element – CLD applicants can focus on **adult learning**, **family learning** or **youth work**.
- Five key elements – evidence can be used across multiple elements
- Three year window to submit evidence



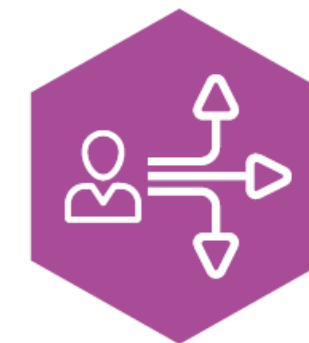
Leadership in
STEM



STEM family learning /
STEM learning in
the community



Employability
and STEM
partnerships



Curriculum
and learner
pathways



Equity and
equality in
STEM



Programme Process

- Register and carry out self-evaluation
- Complete setting profile
- Collate and submit evidence using PowerPoint template
- For full award - Action Plan and Validation Conversation

STEM Nation Award Evidence

Applicant details

- Monifieth High School
- Angus Council
- 5339537
- Angela Barclay
- 20 November 2019



Setting profile

Monifieth High School is one of eight comprehensive secondary schools in Angus, and has educated generations of pupils from Angus and Dundee since first opening its doors in 1976. We currently have around 1200 pupils and over 80 staff.

Our three overarching themes for the school are Attainment, Health and Community and these are signposted in all our correspondence and presentations. We work hard to make the school environment a place where pupils can achieve, feel safe & secure and work with mutual respect in our wider community.

<https://www.monifiethhighschool.com/>



Equity and equality in STEM

Student Surveys and Attitudes

Student survey

Dear student,

During this school year you will be involved in activities where you will learn lots about Science (including computing), Technology, Engineering and Maths (STEM). We are trying to find out if you enjoy and understand STEM. There are no right or wrong answers. We hope you will enjoy your STEM lessons this year and thank you for helping us with the survey.

About you

Your name:

Name of your school:

Your group:

You are:

For each statement please tick only one box according to whether you agree completely, agree a bit, are not sure, disagree a bit or disagree completely.

I am the sort of person that could have a career in STEM

I intend to study STEM subjects in future

I would like a job in a STEM when I am older

I learn about STEM when I'm not at school (e.g. from the news, TV, etc.)

I think STEM subject lessons are fun

I would like to learn more about STEM



Fab to see our girls in training today! Well done Alisha, Joni, Gemma and Rebecca - sure you will be excellent STEM Ambassadors at the #WomenInSTEM event and beyond! #AngusGirlsEngage #STEMeducation

#DYW Dundee & Angus #DYW_DIA - 29 Jan

Well done to all the young women who attended this morning's training event in preparation for the #WomenInSTEM event at the Frigate in com on 9 Feb and good luck! #DYW_DIA #STEM

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Staff Attitude Survey - 2017

I have a good understanding of differentiating the learning (DL) approaches

I regularly use these approaches to plan, teach and assess my students

I can easily identify and challenge stereotypical thinking about STEM in my teaching

I am good at motivating my students to do extra-curricular activities related to STEM

It's easy for me to use real-life STEM contexts to enrich my subject teaching

I have good knowledge of enrichment opportunities offered by STEM employers

I know how to work effectively with employers to support STEM education in my school

I am confident in my own STEM knowledge and skills

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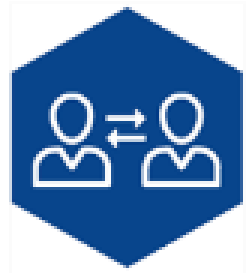
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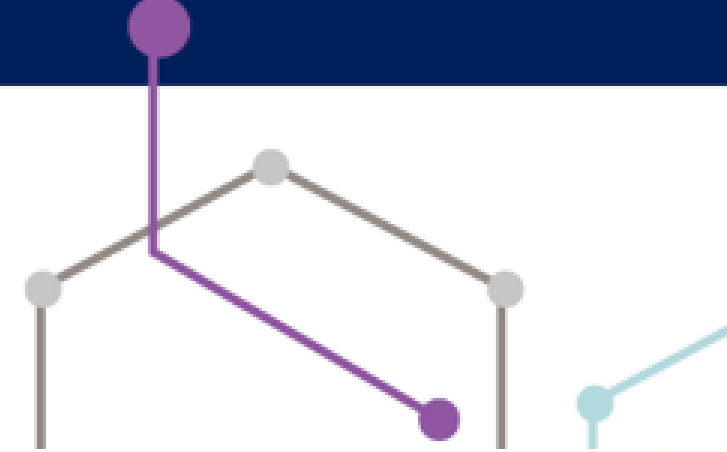
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Employability and STEM partnership working



OLM Primary School @OLM_Primary · Mar 5
Thanks to Cait and the team from @CuanTec who have been showing P3 how they produce food packaging from food waste. #OLMSTEM #ERCSTEM #zerowastescotland



1 3 10

OLM Primary School @OLM_Primary · Mar 4
P6 were joined by Team Proto today, engineering students from Strathclyde University, for a Primary Engineers workshop. Many thanks also to Claire from Atkins, an aeronautical engineer who was interviewed by P5 #OLMSTEM #ERCSTEM #LA2019



OLM Primary School @OLM_Primary · Mar 14
Thank you to Mr McDonald, chemical engineer @PetroineosGM for inspiring P6 pupils into STEM #olmSTEM #ercSTEM #bsw19



2

OLM Primary School @OLM_Primary · Mar 14
Our K'NEX semi-final is underway, lots of planning, designing and constructing going on in the STEM Room just now. Many thanks to Mr Henderson for judging our contest this afternoon @BAMRitchies @GlasgowSciFest #OLMSTEM #ERCSTEM



1 3 4

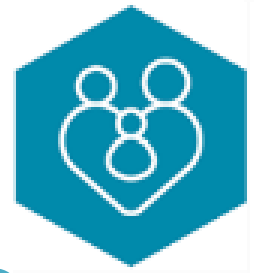
OLM Primary School @OLM_Primary · Feb 14
STEM: Primary 4 enjoyed their engineering workshop today with Joe from Network Rail. They learned about civil engineering and projects that Network Rail have been involved in. P5 & 6 then got the chance to interview him as part of their Leaders Award #OLMSTEM #ERCSTEM #LA2019



3



Our Lady of the Missions Primary School



STEM family learning

Community Engagement

Our community outreach groups regularly visit a neighbouring residential care home and engage in activities with the elderly residents.

STEM activities are often a focus for these visits, with learners engaging in construction challenges with resources such as Lego, Kapla and K'Nex. Pupils have also taught residents to use creative apps on iPads.



Pitteuchar East Primary School



Equity and equality in STEM



MHS Technologies @PeopleWhoCan · 12 Nov

Alaiah, Sinead, Iona, Katie and Jasmine representing us at Future Asset conference!! @AbertayUni #iamanasset @MonifiethHigh



MHS Technologies @PeopleWhoCan · 14 Dec 2018

Girls in STEM @dundee_angus Thanks for a brilliant morning! @MonifiethHigh @CarHighTech #engineeringforall #engineeringourfuture #skillsforlife



Promoting Gender Balance Working Group

Meeting 13/11/2019

Present:

Laura Anderson (PT Heart), Shannon Murray (Art & Design), Neil Tilston (PT Assessment & Maths Teacher), Craig Davies (Social Subjects), Angela Barclay (PT Technologies/DYW).

Apologies:

Janice Murray (Maths), Gillian Savory (English), Debbie McArtney (Maths), Alison Low (PT Modern Languages/DofE), Germain Julien (Modern Languages)



Agenda & Minutes

1. Reflections

Staff shared individual reflections on their areas. AB collated group response on Ed Scot paperwork.

2. Planning for Moving Forward

It was agreed to gather some hard data:

Numbers of male and female uptake in Senior School subjects.

Numbers of uptake in S3 subjects to see where the imbalance starts.

Comparison of these numbers with our closest comparator schools. (NT to find this.)

AB to arrange follow-up meeting for group with Heather Earnshaw to analyse this data and develop strategy to trial.

Working group members will also contact colleagues at schools with better gender balance in the subject to look for good practice.

3. IGBE Meets

Craig Davies kindly agreed to represent us at this upcoming event. AB to send minutes and collated responses.

Meeting closed by the bell at 2:10pm



IGBE Meets – Share & Create: Ideas for Improving Gender Balance and Equalities (IGBE)

IGBE MEETS

IGBE Meets are opportunities for practitioners interested in addressing gender imbalances in participation, curricular preferences and learner pathways, to come together for local network building, idea sharing and collaborative problem solving.

TIME AND PLACE

All IGBE Meets will start at **1:30pm** and finish at **3:40pm**.

Dynamic Earth, Edinburgh, EH8 8AS	12 th Nov
The Gordon Schools, Huntly, AB54 4SE	21 st Nov
Dundee and Angus College, Dundee, DD5 1NY	21 st Nov
St Andrews RC Secondary, Glasgow, G32 6QE	21 st Nov
James Young High School, Livingston, EH54 6NE	26 th Nov
Oban High School, Oban, PA34 4JB	27 th Nov

To book a place, see Eventbrite links on www.bit.ly/NIHIGB

WHO

Anyone who is interested in discussing how we approach and engage people in improving gender balance and equalities. This event is aimed at practitioners from schools and ELCs, but we would also welcome interested practitioners from other organisations, including Community, Learning and Development and local authority staff.

Cost: Free to attend

FOR MORE INFO:

Email:

IGBE@educationscotland.gov.scot

Twitter: @EdScotIGBE
#IGBE #IGBemeets

Monifieth High School

Who can help?

children and
young
people

parents and
wider
community

RAiSE
PSDO /
STEM Lead

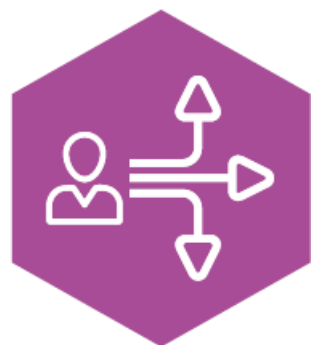
Regional
STEM
Education
Officer

partners

community
learning &
development
colleagues

practitioners

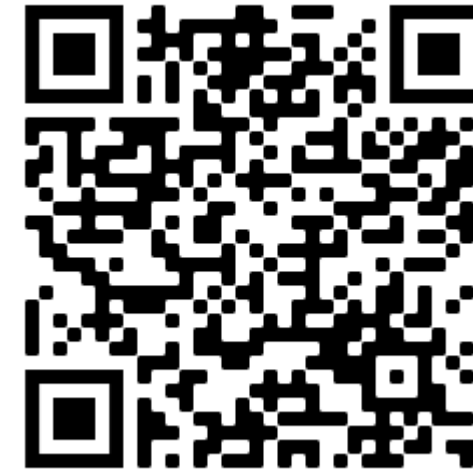
STEM
Nation
network
members



Support Structures / Opportunities

Initial Regional Support:

Regional STEM Education Officer



[Networks](#)

Collegiate Support:

STEM Leads, STEM Networks, RAiSE PSDOs, colleagues, etc

Partners / Supporters :

STEM Ambassadors, SSERC, Science Centres, The Royal Zoological Society of Scotland, Royal Society of Chemistry, The Royal Society, Colleges, Universities and many more





STEM Nation Network Sessions



Regular drop in sessions for interested and registered settings.



[Upcoming STEM Events](#)



THANK YOU



STEM Blog



STEM@educationscotland.gov.scot