The need for RAiSE in the education system

Those about to embark on the programme in the Tranche 2 authorities were questioned on their views regarding science education and their priorities for participating in the RAiSE programme.

Pupils' aspirations regarding science and technology careers

Opportunities for learners to experience breadth in their learning in new contexts

My overall skills to teach science

Teachers' aspirations regarding science and technology careers

Teachers' overall skills and knowledge to teach science

Pupils' aspirations regarding STEM careers

Learners' attainment and achievement in primary science

Priorities for development

Head Teachers

Teachers

Pupils say:

Science is the third most popular subject in primary school

Favourite activities:
- Experiments
- Group working
- Visiting science centre

86%

PS-7 pupils who believe it is important to learn science in school

88%

Pupils who enjoy science

However, only 37% say they know someone who works in science and only 29% say they could see themselves working as a scientist. This shows a real need to develop the understanding of the applications of STEM at a school-level.

For the full evaluation and associated privacy policy, visit:
www.thewoodfoundation.org.uk/developing-young-people-in-scotland/raise

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Trustees of The Wood Foundation: Sir Ian Wood (Executive Chairman), Lady Helen Wood, Garreth Wood and Graham Good
The RAiSE programme is designed to secure improvements in primary science by developing the confidence and skills of teachers to ensure all learners experience highly engaging and motivating learning opportunities.

The objectives of RAiSE clearly articulate with a number of actions identified in the STEM Education and Training Strategy for Scotland.


The three-year pilot, led by Education Scotland, is funded by The Wood Foundation (TWF), Scottish Government and participating local authorities. TWF commissioned this evaluation from the Robert Owen Centre for Educational Change to assess the model, implementation and overall impact of the RAiSE pilot on participating learning communities.

The report indicates RAiSE is adopting an effective CLPL model which reflects recognised best practice approaches to effecting system change and fostering educational change which in turn increases pupil attainment.

The role of the Primary Science Development Officer (PSDO)

Each local authority has a PSDO responsible to lead the programme in their region, supported by the National Education Officer, seconded to Education Scotland by TWF.

The report finds that the highly-skilled and motivated PSDOs are working effectively to promote the RAiSE objectives, with the National Education Officer playing a critical role ensuring the coherence of the programme at cluster, regional and national levels.

Locally, PSDOs have identified and fostered networks of leaders of science learning alongside partner organisations. The responsive and adaptive nature of RAiSE means a variety of approaches have evolved, tailored to suit individual local authority priorities and school objectives.

The use of technology and social media has enabled knowledge sharing, transfer and networking across learning communities often working as part of integrated teams within their local authority.

PSDOs and colleagues are working to ensure that RAiSE developments are sustainable and embedded in school and local authority plans for the long term.

RAiSE’s support of the wider curriculum

The report highlights the complementary principles of RAiSE to broader national education frameworks being deployed within local authorities.

PSDOs’ work to map and present local STEM activity and development has been praised in terms of providing focus and clarity. They have also clearly highlighted where STEM can be incorporated within existing and future project themes.

Head teachers and teachers both reported that promotion of STEM is challenging as it is often not seen to hold parity of esteem with other subjects such as literacy and numeracy. This, along with teacher confidence, is cited as their priorities to address directly through RAiSE.

PSDOs have effectively demonstrated to teachers where RAiSE is supporting on the delivery of Developing the Young Workforce (DYW) and National Improvement Framework (NIF) priorities.

“Talking to the schools gave me lots of ideas of areas to focus on in terms of the delivery of CLPL, cluster models and how we will upskill teachers.”

Glasgow PSDO

“Research shows STEM can raise attainment in literacy and numeracy.”

Highland local authority colleague

“NIF drives our work. The three key areas of this are raising attainment, DYW and the GIRFEC agenda. We’re also trying to address these through the RAiSE programme.”

Angus local authority colleague

“Talking to the schools gave me lots of ideas of areas to focus on in terms of the delivery of CLPL, cluster models and how we will upskill teachers.”

Glasgow PSDO

“It’s all about creating a self-sustaining network.”

Edinburgh PSDO

“Mapping RAiSE to the outcomes of NIF shows it is not an add-on but a way to achieve those priorities.”

Edinburgh local authority colleague