



Engineering: it's a family affair

Families in the North East of England have been exploring engineering together as part of 'Engineering for Families', a six-week learning course developed for primary school children and their parents.

During each weekly after-school session, families explore a different engineering discipline through hands-on practical activities, career case studies and real-world examples.

Why family engagements?

The course has been designed and delivered by NUSTEM, previously known as Think Physics, a widening participation and outreach group at Northumbria University. The course was developed in

response to IET research that found many parents lack the confidence, knowledge and skills necessary to support their children with Science, Technology, Engineering and Maths (STEM).

This research highlighted that 83 per cent of mums and dads surveyed had been unable to answer their child's questions about STEM subjects at some time, with 61 per cent saying they are fearful of being asked a difficult question.

Modelling best practice

Rather than aiming to teach parents answers to possible questions, 'Engineering for Families' models good-practice in how to work through challenging

questions and test out possible solutions to problems together. Short term it aims to build all participants' understanding and enjoyment of engineering, and long-term, to provide parents with the confidence to support their children in STEM learning at home and school.

Furthermore, the course was designed with gender equality in mind, and endeavours to improve girls' investment and participation in engineering sector careers.

On completing the course, families reported feeling motivated to continue their engineering learning at home.

The wider NUSTEM approach

Engineering for Families is just one part of NUSTEM's

programme of activities. The group works with industry, science and education bodies and schools to improve access to the physical and computer sciences, engineering and technology sectors, particularly among girls and other under-represented groups.

NUSTEM believes that because parents and families exert considerable influence on children's attitudes and future aspirations, participation will only be improved if they are also engaged and supported with STEM.

Find out more about NUSTEM's work at www.nustem.uk.