ANGUS COUNCIL

CHILDREN AND LEARNING COMMITTEE - 19th APRIL 2018

Science, Technology, Engineering & Mathematics (STEM)

1. BACKGROUND

- 1.1 As part of the national RAISE (Raise Aspirations in Science Education) Programme, a Primary Science Development Officer (PSDO) was appointed in August 2017. This is a two year secondment funded via contributions from The Wood Foundation, Scottish Government and Angus Council.
- 1.2 Prior to the appointment of a PSDO, Angus schools were already successfully developing STEM (science, technologies engineering and mathematics) in their setting in a range of ways including: teaching staff undertaking Master's Level Study at the University of Dundee, three clusters participating in the Scottish Schools Education Research Centre (SSERC) Cluster Mentor Programme and the Primary Engineer Project.

2. PROGRESS TO DATE

- 2.1 A number of new partnerships have been established with organisations including: the University of Dundee, Dundee & Aberdeen Science Centres, Generation Science, Young Engineering and Science Clubs (YESC), PSDO network and STEM East.
- 2.2 Following a successful pilot of Primary Engineer in the Arbroath West Cluster, DYW (Developing Young Workforce) Dundee & Angus are funding their own pilot of this project in the Kirriemuir Cluster. Subject to positive evaluation DYW Dundee & Angus are looking to roll the project out across Dundee & Angus schools.
- 2.3 The 'Animating Science Transition Project' is an exciting collaboration between the Life Sciences Department within the University of Dundee, Dundee Contemporary Arts and the Carnoustie Cluster. Planned activities will allow schools to work with scientists and animators to create short films illustrating scientific concepts. These will be shared with parents and staff at a celebratory 'film premiere'.
- 2.4 Angus Primary Science Website: www.angusprimaryscience.co.uk is now operational. Collaborating with teachers across Angus, this new Angus Primary Science website aims to contain everything that teachers need to successfully deliver science lessons in their setting. The website provides professional learning in the form of short 'How To' videos which teachers can access at a time and place that is convenient to them.
- 2.5 A 'Science Leadership Development Programme' has been developed. This is a two year programme for teachers who have been tasked with developing science in their setting. Supported by funding from the Primary Science Teacher Trust (PSTT), this in-depth training programme equips staff with the skills, resources and contacts they need to lead science developments in their school.
- 2.6 1000 Girls, 1000 Futures is a ground-breaking worldwide initiative designed to engage young women interested in STEM and advance their pursuit of STEM careers through mentoring. A S4 pupil from Webster's High School, has been selected by the New York Academy of Sciences to participate in this programme and is now in the process of choosing her own mentor, most of whom are American female academics.
- 2.7 Formula 1 in Schools is an international STEM competition for school children aged 11 18. Teams of students go head to head in a special Formula 1 challenge which challenges them to design, construct and race a Formula 1 car of the future. Six Monifieth High school pupils (Team Nova) won the Scottish regional competition and are currently crowdfunding £1500 in order to compete at the National Finals at Silverstone.
- 2.8 An Angus STEM Festival is planned for 2 June 2018. This is funded by a partner organisation, DYW Dundee & Angus. This is a free family event with science and STEM shows from

National Science Centres, as well as interactive workshops and stalls presented by local colleges, universities and STEM employers. Angus schools are also invited to sign-up for a stall to showcase their great STEM learning.

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