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EESW Awards

With the U.K. Final of the Engineering Education Scheme Wales approaching in March, we'd like to take the opportunity to look back on the successes of the scheme over the past academic year.

EESW have developed a challenge brief, which requires students to work in a team of 3-6 members to design and develop an idea to enhance the productivity or effectiveness of a company, in co-operation with engineers and scientists from the link company.

'Teachers have expressed their gratitude for having the opportunity to give students a real, industry linked, opportunity to give them a highly contextualised experience of team work and problem solving which easily ticks all the boxes for the Enterprise and Employability Challenge.' Robert Cater, Engineering Education Scheme Wales Ltd.

The positive experience for students of working with professional engineers and scientists in an industrial setting, shows that STEM areas are diverse and stimulating, and can provide an intellectually challenging career that will contribute to the future prosperity of Wales.

Hannah Padmore, Welsh Baccalaureate Coordinator of Cynffig Comprehensive school, describes the triumphs of using the brief with her students:

'Year 12 worked closely with Zimmer Biomet in Bridgend (specialists orthopaedic implants) to design a more effective method of taping the hip stem for plasma porous coating. The young engineers then undertook an exceptionally challenging but rewarding journey, taking in such wide-ranging topics as materials science, mathematics, human physiology, computer aided design, rapid prototyping and heavy manufacturing. Zimmer Biomet also supported the pupils with engineer time, visits to the company itself and financial support to create the prototype of their product.'

On the 4th April 2019, the team were invited to present their technical solution. The panel consisted of six senior development engineers and company directors. The Cynffig team needed to convince the panel of the technical and financial merits of their chosen solution.

The presentation went exceptionally well, and the team were congratulated by all members present on not only their technical solution and the final report but also their confidence and their professional composure throughout. Their solution will help save the company at least £50,000 a year. Not a sum to be sniffed at!

The team then progressed to the South Wales finals on Thursday 11th April 2019 at MOD St.Athan. Once again, the team impressed all the judges and ended up winning the 'Best Application of Engineering and Technology' and work nominated for 'Best Report' and 'Best Prototype'.



In terms of the Skills Challenge Certificate, the EESW brief enriches the challenge as it adds a 'real-life' aspect and brings the task alive. Students are not working on a hypothetical situation but are creating a piece of technology that professional engineers from an industrial setting actually need and will use. The skills developed during this process supersede what can be experienced in the classroom.'

Cynffig Comprehensive School team and Prestatyn High School, together with five other Big Bang Nominees were selected to go to the UK final in Birmingham on 11th-14th March 2020. Well done and best of luck to all involved!