

## WHSG Engineering/STEM Clubs - Rolls Royce Science prize Finalists.

# Rolls-Royce Science Prize Finalist 2016

WHSG's STEM clubs are currently **2016-2017 Finalists** in a competition held by Rolls Royce and **could** potentially become their 2016-17 winner! This required the completion of an extensive entry form explaining how we intend to raise awareness of STEM subjects through our clubs. We hope to inspire and encourage students to take part in our extra-curricular clubs which focus on STEM subjects, an emphasis being the interest of girls into Engineering.

The teams will be working through their projects over the coming academic year, submitting regular updates on the school website, of which Rolls Royce will have a link to, in addition to presenting the results of their final projects at the finals this time next year.

### **About the prize**

By becoming a finalist the department received a further £5,000, on top of the Special Merit Award we have already been awarded to support us with our project/s. In addition, we will have the support of one of Rolls Royce's STEM Ambassadors who will become our Mentor and support us during our project 'The Rolls-Royce Science Prize' is an annual awards programme that helps teachers implement science (STEM) teaching ideas in their schools and colleges. The Prize recognises and rewards excellence in Science teaching across the full spectrum of teaching, from special education needs to high ability pupils. It also promotes innovative and sustainable strategies for teaching science which addresses a specific need in the schools or colleges and at the same time contributes to teachers' continuing professional development.'

On Sunday 6<sup>th</sup> and Monday 7<sup>th</sup> November I (Miss Parkin) took a trip up to Derby to meet the current finalists and participate in a tour of Rolls Royce's facilities. This was followed by a journey back down to London's Science museum to attend this year's awards night along with Dr Hayman. As well as meeting this year's finalists and the current teams, we also met our Rolls Royce mentor, Chris Tague and a number of high profile members of the Rolls Royce staff and director. This was a valuable experience, both to network with key people as well as to see the standard of projects from this year.

The Engineering/STEM clubs have enabled us to enrich STEM teaching with real life applications and career information, allowing us to collaborate across departments and deliver a broader knowledge and skill set of teaching and leadership. By working cross-curricular in this way, this allows us to increase our own motivation and career progression. The hope is that by extending the staff involvement and student participation in the clubs, we can improve/ maintain attainment levels and progression, motivating students to continue their studies and future careers in different fields of STEM subjects.

With the money we have been awarded we hope to be able to purchase some NEW equipment/kits/resources to enable us to enhance the delivery of the clubs as well as lessons. We intend to provide a range of kits and materials so that students can investigate a range of engineering disciplines and the science involved, incorporating them in to their projects. For example electronics, microcontrollers, mechanics, pneumatic and hydraulics systems and components.

## Engineering Clubs

Years 7 and 8 & 9 clubs are now all well underway and meeting regularly during their lunchtime sessions and have had good interest, with a lot of very excited and enthusiastic girls attending. The KS4/5 club has been advertised and had some interest, with a number of students meeting with JBa to discuss the project and start planning the next steps, including designing.

*"Club members are settling down well and beginning to become 'regulars'. They are beginning to put together their design briefs and research to identify customer needs and wants. There have been some exciting ideas ranging from Eco school buildings designs to temperature sensitive disability aids. We are hoping to complete the research and design specification by Christmas."* Mrs McSorley

There are still a limited space in some of our clubs, anyone interested in attending any of the clubs please contact the relevant teacher in charge of each section. Clubs meet at the times/days below:

- **Year 7 'Robotics & Programming' Club** - Monday's AND Tuesday's 12.30-1.10 - With Mr Bartlett & Mr Cornell in the Engineering room
- **Years 8 & 9 'Young Engineers' Club (FULL)** - Monday's 12.30-1.10, with Mrs McSorley & STEM Ambassadors (Ed & Pete) in DT3
- **Years 10 & 11 'Robotics & Programming' Club** - Friday's 12.30-1.10, With Mr Bartlett & Mr Cornell in the Engineering room
- **Years 12& 13** - to be invited to be mentors/ team leaders for clubs With Mr Bartlett & Mr Cornell in the Engineering room



Miss S Parkin  
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Rolls Royce Science Prize Team Leader