

## Engineering/STEM clubs 2016-17

### February Club Sessions:

#### **Robotics & Programming (Mr Bartlett):**

The year 7 have been learning about functions in programming to simplify making their robots (using the simulator). The KS4/5 group will now be making a prototype robot for demonstrations and have had a few meetings to discuss their ideas and look at the basic systems.

#### **Years 8 & 9 Young Engineers (Mrs McSorley along with Mr Bye & Mr Sipple – STEM Ambassadors):**

There are teams have finalised their project briefs and many of the 5-6 groups have created a specification outline following the “ACCESS FM” principles as to how they are going to address and answer this. Many have sketches and are working on some scaled engineering CAD drawings. Many of the components required are on order and students are all keen to start practical making.

Some teams will be using a microcontroller in their project and a team representative has joined the year 7's to learn how to connect simple hardware, write code and program the devices, this being led by Mr Bartlett.

#### **Additional updates:**

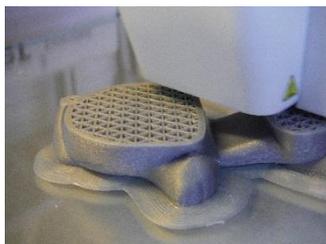
- Chris Tague, our Rolls-Royce Mentor, visited us on Monday 24<sup>th</sup> January. He began his visit with a brief meeting with Dr Hayman, then joined us in the STEM clubs. Chris was introduced to the rest of the team by Miss Parkin where everyone had the opportunity to explain their role within the STEM clubs, then he went around the different clubs meeting the teams and talking to the girls about their projects. He was also able to spend the afternoon in with Miss Parkin's year 11 Engineering and year 12 Graphic Product lessons seeing the students working on their final GCSE and A Level coursework projects. He was most impressed by their ability to work independently using a wide variety of equipment, machinery and processes.

*Being a “girl's school”, it is encouraging to see such high numbers attending the lunch time clubs. They are enthused and want to be part of the future of engineering and technology albeit in different disciplines. (Mr Bye)*

- Work on replacing the demolished DT block has taken a turn over the half term break and it was thrilling to see the students watching the heavy machinery working on site, many said they would love to be driving the diggers and other large mobile machines.



- We finally have a 3D printer that suits the needs of the DT/Engineering department and one that is compatible with the IT system of the school. It is installed and up and running with a few test objects having been produced. With any new, especially equipment as sophisticated as this, there will be a learning curve to climb. We look forward to making use of it in future GCSE & A Level projects as well as in the STEM clubs.



#### **Miss S Parkin**

Head of D&T and Engineering  
Rolls-Royce Science Prize Team Leader

## **'Big Bang National Finals'**

Between 15<sup>th</sup> - 17<sup>th</sup> March 2016 the following students represented WHSGs Engineering clubs at the National Science + Engineering Competition , 'The Big Bang', at the NEC Birmingham:-

### **6 x Year 10's**

Amelia Bottomley  
Eloise Wilkinson  
Elizabeth Everitt  
Zoe Robins  
Grace Victory  
Olivia Thirkettle

### **2 x Year 12's**

Tara Crees  
Manon Sowerby

Congratulations went to Tara Crees, Manon Sowerby, on winning a prize:

**Intermediate engineering and technology highly commended**

Prize amount: **£125**

The judges were really impressed with their project and the way in which they presented.



*"We were chosen to represent the school at the National Engineering Competition in Birmingham with our group showcase. It was a fun and exciting experience as we had the opportunity to meet many new people, and to show the judges and the public our work that we had completed throughout the year. The competition consisted of 3 days of excitement and new adventures. We had time to explore the different stands that were available to us and to learn more about different career choices. Overall it was a thoroughly enjoyable experience that we learnt a lot from."*

Elizabeth Everitt and Olivia Thirkettle

We currently have 4 year 8/9 teams, a number of year 7s and 4 year 12's all preparing for this year's regional competitions. We wish them all the best in their efforts' at the Big Bang/CSSES to be held this year at Anglia Ruskin, Chelmsford and hope for more success to take them on to the Finals again.

Miss S Parkin  
Head of D&T and Engineering