# Bourne College





# **Bourne STEAMS Ahead**

Over a number of years we have developed several links with Industry and Further Education - our aim is to promote a pathway at Bourne Community College to inspire students onto future careers and professions in the areas of STEAM.

We also recognise the skills shortage that exists in the STEAM sector and so are keen to promote this exciting area for the future.

To support our students, STEAM is taught across all age groups and students are given many opportunities to visit sites and enterprises such as the INEOS - the Ben Ainsley sailing project. Sessions are delivered in a real life situation and students are taught how Computer Aided Design, Composite Materials Technology and higher level Maths are all required to create the newest brands.

We also have a strong link with Stannah Stairlifts who reinforce this philosophy of problem solving and product development involving a range of disciplines. Stannah also sponsor our Greenpower car which has resulted in many exciting races across the country.

Back in school, Year 7 have worked on a project involving Science, Technology, Engineering, Art and Maths in a multi disciplinary way to create a rocket car. All were tested out and an amazing competitive atmosphere was created amongst the Year 7 teams!

We have strong links with Chichester College and University to create routeways for students who may wish to study STEAM subjects at degree level, before entering the workplace.

Mr. Ellis, Extended Leadership & ICT



## Innovators of the Future



Some of our Year 8 students recently had the opportunity to visit the 1851 Trust in Old Portsmouth.

The 1851 Trust is a dynamic and innovative education charity committed to inspiring young people to become

innovators of the future and stewards of the environment.

Students spent the afternoon learning the history of the America's Cup and understanding its importance. They finished with a practical chemistry workshop to demonstrate

how understanding the carbon cycle is essential to an America's Cup team, and were able to use virtual reality to sail a replica boat.

Ms. M Perry, STEAM ActivityCoordinator







It was a priviledge to take part in The **Greenpower Trust finals** at Silverstone, and an amazing experience to visit the home of the British Grand Prix. Our students enjoyed working with the Engineering apprentices from our sponsors, Stannah, and gained an insight into a future in Engineering. Students took turns to drive the car on the iconic circuit. Unfortunately, a late puncture prevented us from beating our position from last year, but overall, it was an excellent day, enjoyed by us all.

Ms Perry,

**STEAM Activity Co-ordinator** 

# Greenpower - Silverstone Finalists



### National Microbit Programming Initiative

STEAM is our unique focus as a school. Our STEAM club operates every Thursday, allowing students access to a range of projects including the electric car, which takes part in various races run by the GreenPower charity. We are also involved in "Race for the line" and delivery of the national Microbit programming initiative. Solidworks is our our 3D design software which allows students to develop their 3D printing skills through Technology and the STEAM club students have access to do their own projects. We are promoting the STEAM subjects through cross curricular projects like the rocket car and the Royal Society of Engineering flight, which is funded by the Royal Society of Engineering.

This project is providing students with real skills in Engineering, Applied Science and Maths as well as Aesthetic Design.

With our new state of the art Engineering facility at the College, we are creating STEAM skilled students to bridge the gap in British industry.





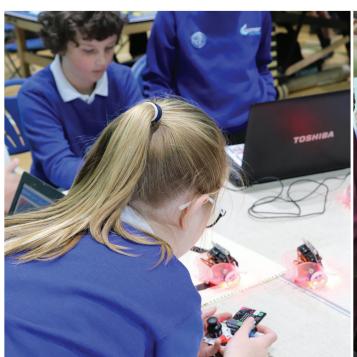
#### STEAM FEST

**Bourne Community** College, in collaboration with The Royal Academy of Engineering's Connecting STEAM Teachers Programme, hosted an Inter-schools STEAM day in which 124 students and their teachers from Primary and Secondary schools across the south-east arrived for a day of fun and interactive handson team activities and challenges. The day consisted of various challenges including the coding and building of radio controlled BattleBots, VEX Robotics challenges and Virtual Reality racing. Students were encouraged to 'think like an Engineer' and to develop creative problem solving and

collaboration skills and to generate and adapt ideas. Professionals from the engineering sector shared stories of how they became experts in their chosen STEAM field. The shortage of the workforce with STEAM skills is well documented. Collaborative

opportunities like this improve perceptions amongst young learners and helps to support the aspiration of those who wish to become the engineers of the future.

Scott Atkinson Education Programmes Manager Royal Academy of Engineering





Bourne has invested in a new Technology building where the state of the art Engineering room and modern CAD/CAM resources will support the delivery of the engineering element of our STEAM initiative. We recognise the skills shortage in these areas and have a vision for The Bourne to be a centre of excellence for vocational as well as academic STEAM courses. These courses lend themselves to collaboration between providers and industry. We are therefore keen to develop industry based links and fundraising initiatives to provide the extra resources and skills needed to deliver these programmes of study and practical projects such as Greenpower racing, robotics and composite materials.









