The Buckinghamshire Science and Technology Challenge Day

for Gifted and Talented Year 8 and Year 9s

What are the Science & Technology Days for?

They raise enthusiasm for STEM subjects and encourage young people to consider studying them further.

In 2016, MCS Projects Ltd organised 47 Challenge Days across the UK, involving more than 300 schools.

What happens?

Twelve Gifted and Talented Year 8/9s are invited to participate from each school. Working together in mixed school teams of four, they undertake practical activities that increase their awareness of the application of science.

Each activity is designed to develop skills that will be needed in the workplace, with marks being awarded for planning, team work and the finished product.

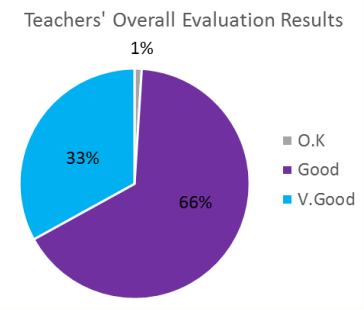
Challenge Days are usually held on the campus of a local college or university. The young people undertake three 75min activities. The local Mayor or Deputy Lieutenant is invited to present awards to members of each winning team.

How are they rated?

Evaluations of last year's events indicated that….

99% of the teachers and 86% of the young people considered their Day to have been 'good' or 'very good'.

78% of the young people were more likely to consider studying STEM subjects at college or university as a result of the event.



The overall winning teams from each Challenge Day progress to one of our regional Finals. In 2016, the Finals were hosted by the Universities of Manchester, Sheffield and Queen Mary's University.

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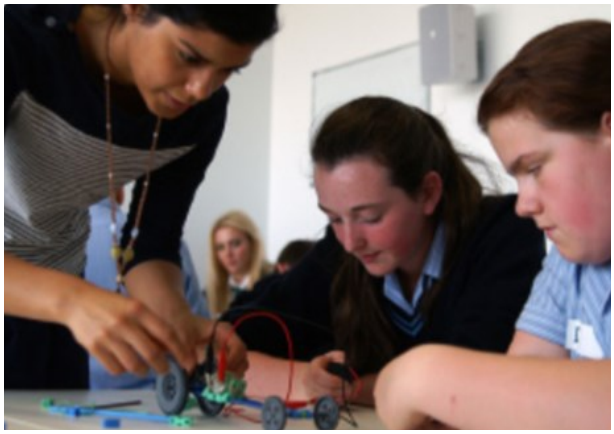
The Robotics Challenge

Working with the University of Manchester, a new robotic activity has been developed involving the latest Lego Mindstorm EV3 robots. Each robot is equipped with infrared and light sensors, which are used to program the robot to avoid obstacles. The young people learn how to design, build and then programme these robots to complete the challenge.

The E-FIT Challenge

Young people witness a simulated crime being committed, then use E-FIT software to construct a computer image of the thief. The software is used by the majority of the police forces across the UK. The young people are encouraged to consider the problems associated with memory and with facial recognition.



The Vehicle Challenge

Within their teams, the young people design and construct simple electric vehicles from kit pieces. They are encouraged to consider power transmission, and the effect that gears and pulleys have on speed and torque (or rotational force). Finally, the vehicles are raced against each other.

The Buckinghamshire Science & Technology Challenge Day will be taking place at **University Campus Aylesbury Vale** on **Friday 7th July.** It will begin at 9.30am and finish at 3pm.

The cost for a school to enter twelve young people is **£335 + VAT**. Prices can be adjusted pro-rata. Places are allocated on a first come first served basis. To reserve a place for your school please email John Waterworth to confirm your intentions.

If you have any queries about Science and Technology Days please contact either:

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Paul Waterworth: 07702 221938

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The following schools have attended the Buckinghamshire Challenge Day in the past three years…

- Amersham School
- Aylesbury High School
- Beaconsfield High School
- Chalfonts Community College
- Chiltern Hills Academy
- John Colet School
- Khalsa Secondary School
- Radcliffe School
- Royal Grammar School
- Sir Thomas Fremantle School
- St Helen's School
- St Michael's Catholic School
- St Paul's Catholic School
- The Aylesbury Vale Academy
- The Elizabeth Woodville School – South
- The Grange School
- The Harefield Academy

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