MCS Projects Ltd
Raising Aspirations

# The Huddersfield Science and Technology Challenge Day -

*for Gifted and Talented Year 8 and Year 9s*

## What are the Science & Technology Days for?

They are regional competitions, which raise enthusiasm for STEM subjects and encourage young people to consider studying them at College and University.

In 2019, MCS Projects Ltd held 27 Challenge Days, involving 206 schools.

## What happens?

12 Gifted and Talented Year 8/9s are invited from each school. Working together in teams of four, they undertake activities that give them an insight into some of the topics that they could study at University.

Activities are also designed to develop skills such as planning and team work that will be essential to their success in further education.

Throughout the day young people complete three of our four activities, each lasting for 75 minutes.

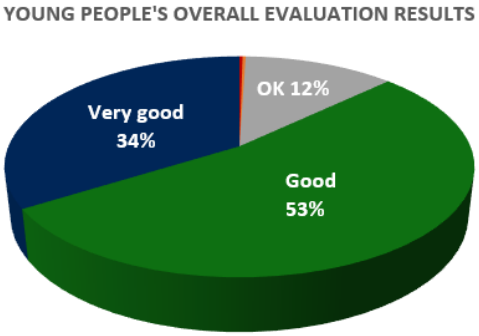
Plaques are awarded to the winners for each activity, and the overall winners receive trophies. A local V.I.P is invited to present these prizes. The overall winning team from each event proceeds to a regional Final.

At the end of the event, young people can also put any questions that they have about University to our team of students.

## How are they rated?

Evaluations of last year's events indicated that:

99% of the teachers and 87% of the young people considered their Challenge Day to have been 'good' or 'very good'.




### 2019 Results

Additionally, 80% young people stated that they were more likely to study STEM subjects at College/University as a result of the event.

### Importance of STEM events

Engineering UK states that emerging new industries and technologies are adding to already significant demand for engineering skills. There is currently an annual shortage of up to 59,000 engineering graduates and technicians to fill core engineering roles.[1]

## The Robotics Challenge

Each team is provided with a Lego Mindstorm EV3 robot, which they programme in order to navigate around a course. Each robot is equipped with ultrasonic and infrared sensors.

## The E-FIT Challenge

Having witnessed a simulated crime, each team uses the latest E-FIT 6 facial recognition software (as used by 90% of UK police forces) to create a computer image of the thief. They also consider problems associated with memory and facial recognition

## The Vehicle Challenge

Each team designs and constructs a simple battery powered vehicle from kit pieces, considering power transmission, speed and torque. Each team's vehicle is timed between starting and finishing lines.

## The Medical Diagnostics Challenge

Each team undertakes the role of a doctor, diagnosing conditions suffered by simulated patients. They test 'urine' samples, evaluate brain function, examine X-rays and brain scans. They consider how the brain works, seeing equipment operated directly by the brain.

# I am interested, how do I book?

The Huddersfield Science & Technology Challenge Day will be taking place at
**University of Huddersfield, Queensgate Campus [HD1 3DH]** on **Friday 17th June 2022.**
It will begin at 9.30am and finish at 3pm.

The cost for a school to enter twelve young people is **£390 + VAT**. Costs 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.

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