

95% of children completing the programme would consider a career in engineering!

“It was really fun and interesting. We also work in groups which helps our teamwork and friendship. We get to learn about things we never knew about before”.

Student Response



Case Study

Social Value – STEM creating the next generation of engineers

PROJECT	M27 Romsey Bridge Replacement
CUSTOMER	National Highways
LOCATION	Romsey, Southampton
CONTRACT	Collaborative Delivery Framework
COMPLETION	2019





Need

The UK economy needs engineers and scientists to retain its strong global position and prosper but the country has a STEM skills gap as young people continue to turn their backs on careers in science and engineering.

Part of the reason is that many young people de-select themselves before they come to make their career choices by dropping STEM subjects at GCSE level. Once the STEM subjects have been dropped it's virtually impossible to pick them up again.

Solution

Targeting the mid-teens

As an industry it is our role to capture the imagination of our young people and convince them that a career in construction can be exciting and rewarding. The research indicates that to make that happen, we need to target mid-teen students who are making their GSCE choices.

STEM education programme

As a business we have supported a range of school activities and developed a core group of trained STEM Ambassadors. When we were

approached to be part of the unique Mabey Hire lead STEM Education Programme we decided to commit to delivering it to one of our own local schools. The programme which uses *LEGO® Education materials and a bespoke 'mission mat', was clearly providing a real benefit to young people at this crucial time in their education.

Initially it represented a considerable time investment by our people and an outlay for the materials, but it was worth it. The programme is unique in the way that it teaches fundamental engineering principles using *LEGO® Education materials in a hands-on, fun and engaging way. The added value is the kits can be reused to benefit schools in more communities where we work.

To launch the 16-week programme, our team at the M27 Bridge Replacement near Southampton approached the local Mountbatten School and they said yes. A group of 12 children who were at risk of dropping STEM subjects were selected for the after-school classes. The fun-filled mathematical challenges and engineering activities explored gears, balancing, levers and supports by making tower cranes, cars and bridges. All the activities applied learning and problem-solving skills to reach a goal.

Outcome

The programme delivered social value. It sparked the interest in STEM subjects of the children involved and their experience was shared with teachers and students in the wider school community.

- In just 16 weeks the children gained an introduction to eight different engineering activities and fundamental principles.
- Limiting the classes to 12 meant that learning could be fun, hands on and highly interactive.
- 95% of the children involved in the programme would consider a career in engineering.

Student response: “It was really fun and interesting. We also work in groups which helps our teamwork and friendship. We get to learn about things we never knew about before”.

Going forward, more young people will benefit from this innovative and engaging programme as it is rolled out. Together we have our part to play in raising awareness and enthusiasm in STEM subjects and the opportunities for young people, the industry and the economy to thrive.

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