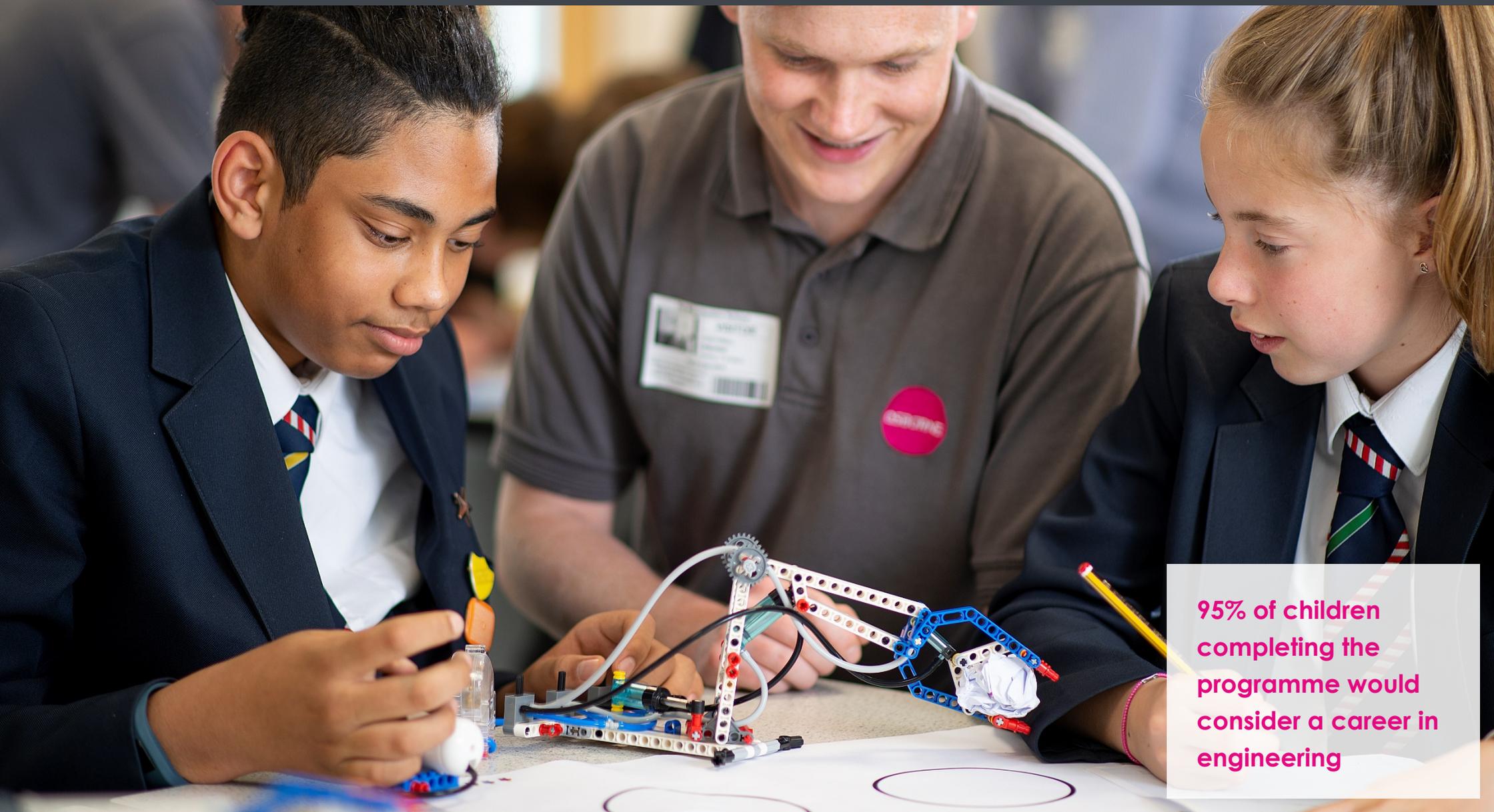




OSBORNE

Social Value – STEM Education Programme creates the next generation of engineers



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

Issue

The UK needs engineers and scientists to maintain its global position however research is indicating that less young people are choosing careers in science and engineering. Part of the reason is that they have de-selected 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

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.

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 through benefits to the children and promotion of STEM for the industry.

- 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.

Going forward, more young people will benefit from this innovative programme to increase engagement in STEM subjects.

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".

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