

STEM IN THE BLACK COUNTRY





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Acknowledgements

# Introduction

This report details the impact of our latest project, a series of free pop-up STEM events aimed at inspiring and engaging children across the Black Country.

The funding we received enabled our team of passionate STEM ambassadors to visit six locations, each hosting a fourhour interactive session. These sessions offered children hands-on experiences with space engineering, programming, and nanotechnology through the use of VR and mixed reality. Participants also had the opportunity to code a Micro-bit for robotics, create paper circuits to understand electronics, and explore engineering principles by building catapult structures.

Beyond these events, children were encouraged to continue their STEM education by enrolling in Make More's summer workshops, with special provisions for ten children from lowincome households to attend free of charge.



This project was made possible through the generous support of National Grid, Local Giving through the Community Matters Fund. Their partnership and funding were crucial in bringing our vision to life, enabling us to reach a wider audience and provide high-quality STEM experiences. The collaboration with these organisations not only facilitated the practical aspects of the project but also highlighted the importance of community involvement and corporate responsibility in developing educational opportunities for all.

Our objective was to broaden children's perceptions of STEM, showcasing the diversity and excitement inherent in these fields. By providing access to technology and experiences not typically available within the school curriculum, we aimed to foster a deeper interest and understanding of STEM. This initiative emphasised practical, hands-on learning, allowing children to develop critical skills such as logic, problemsolving, creativity and confidence in STEM.

In this report, we outline the success of these events, the skills imparted, and the long-term benefits observed among participants. Through this project, Make More has demonstrated a significant positive impact on local children, paving the way for continued engagement and learning in STEM disciplines.



## Project Impact

286 children from across the Black Country took part in the STEM Pop-up workshops which were held across 6 different locations.

## **Event Feedback**

The feedback from our pop-up STEM events provided valuable insights into the perceptions and experiences of both children and parents. The survey results highlight the significant impact of our initiative on raising awareness and interest in STEM subjects.

## Awareness and Understanding of STEM

Prior to the event, 55.5% of participants were already aware of the term STEM. Following the event, an impressive 87.2% reported an increased understanding of STEM. This highlights the event's significant effectiveness in educating attendees about STEM and possible careers.

### **Interest in Pursuing STEM**

Interest in pursuing STEM subjects also saw a significant increase. Participants were asked to rate what their interest in pursuing a STEM career was prior to the event, and post the event. Prior to the event, only 27.3% rated their likelihood at the highest level (5), whereas post-event, this increased to 65.9%. Additionally, the lower ratings (1 and 2) dropped to 0%, indicating a heightened interest across the board.

### Knowledge and Satisfaction Ratings

Following the event, participants rated their knowledge about STEM fields and opportunities from low to high, with 40.9% giving a rating of 4 and 25% giving the highest rating of 5. Satisfaction with the event was similarly positive, with 63.6% rating their satisfaction at the highest level (5), and 22.7% at level 4.

of children increased their understanding of STEM following the Pop-up workshop

87%



# The Comment Wall

The feedback was gathered from 44 parents and class/ group leaders on behalf of the children

"Kids really enjoyed themselves, staff were amazing and my youngest daughter really had fun"

"Appreciated the chance to experience VR"

"Great event, kids loved it and a good selection of activities"

"Lovely and welcoming staff who explained things appropriately for the kids"

"Excellent to get kids interested in STEM"

"Really engaging workshop, both children loved the building and VR activities"

"Lovely setup. Very Inclusive"

"We came with 2 adults and 3 children (9,7 and 3), they were all engaged"

"Lovely experience for all the children and the staff were friendly"

"Nice drop in session, easy to access"

"Really interactive and engaging for all of the children"



# Ongoing Support

Following the success of our initial popup STEM events, Make More continues to support and engage the children who attended by offering additional enriching workshops. These follow-up sessions are designed to deepen their interest and skills in STEM, ensuring they have continuous opportunities to explore and grow.

Two exciting upcoming workshops are the Game Design Workshop and the Robot Wars Workshop, each tailored to spark creativity and technical skills in unique and enjoyable ways.

Game Design Workshop, children will become game designers for a day. They'll sketch characters, settings, and storylines, transform their drawings into digital art, and learn basic coding to bring their game ideas to life. Robot Wars Workshop invites future engineers and tech enthusiasts aged 8-14 to design, build, and code their own robots. Over two hours, participants will plan their robot's design, construct it using various tools and parts, learn coding techniques to program it, and showcase its abilities in a thrilling battle royale.

As an organisation dedicated to bridging the inequality gap, we provide underrepresented members of the community with access to educational opportunities and STEM resources they might not otherwise have access to.

By continuing to offer innovative and engaging programs, we ensure that children have ongoing support and opportunities to pursue their interests in science, tech, engineering & maths.

## **PROJECT TARGETS**

Six pop up STEM experiences with at least 30 different children

85% or more of people surveyed say their knowledge on STEM increased

Provide a free STEM workshop place for 10 children who have visited a pop up event

80% of surveyed people report an increased likelihood to study STEM subject

### **PROJECT RESULTS**





## We thank you for your support of the programme

## Acknowledgements

We extend our heartfelt gratitude to the venues across the Black Country that opened their doors, making our free pop-up STEM event possible for children in six locations. Special thanks to the dedicated Make More staff and leadership for their tireless efforts, and to our project funders for their generous support. Your collective contributions have been instrumental in inspiring the next generation of scientists and engineers.

#### **Venue Facilitators:**

YMCA Black Country, Dudley Provision House, Wolverhampton Mander Centre, Halesowen Cornbow Shopping Centre, Walsall Leather Museum, Nova Training

### **Project Co-ordinators:**

Simone Stone, Simeon Douglas

#### Make More Team:

Ell Worthington, Paul Dhami, Llewellyn Livingston, Israa Mohammad.

### **Project Funders:**

National Grid, Local Giving, Community Matters Fund

And with thanks to Dudley CVS and Dudley Council.

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