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**GATEWAY**  
**TO**  
**SKILLS**  
+



**Impact Report**  
March 2022 - July 2023

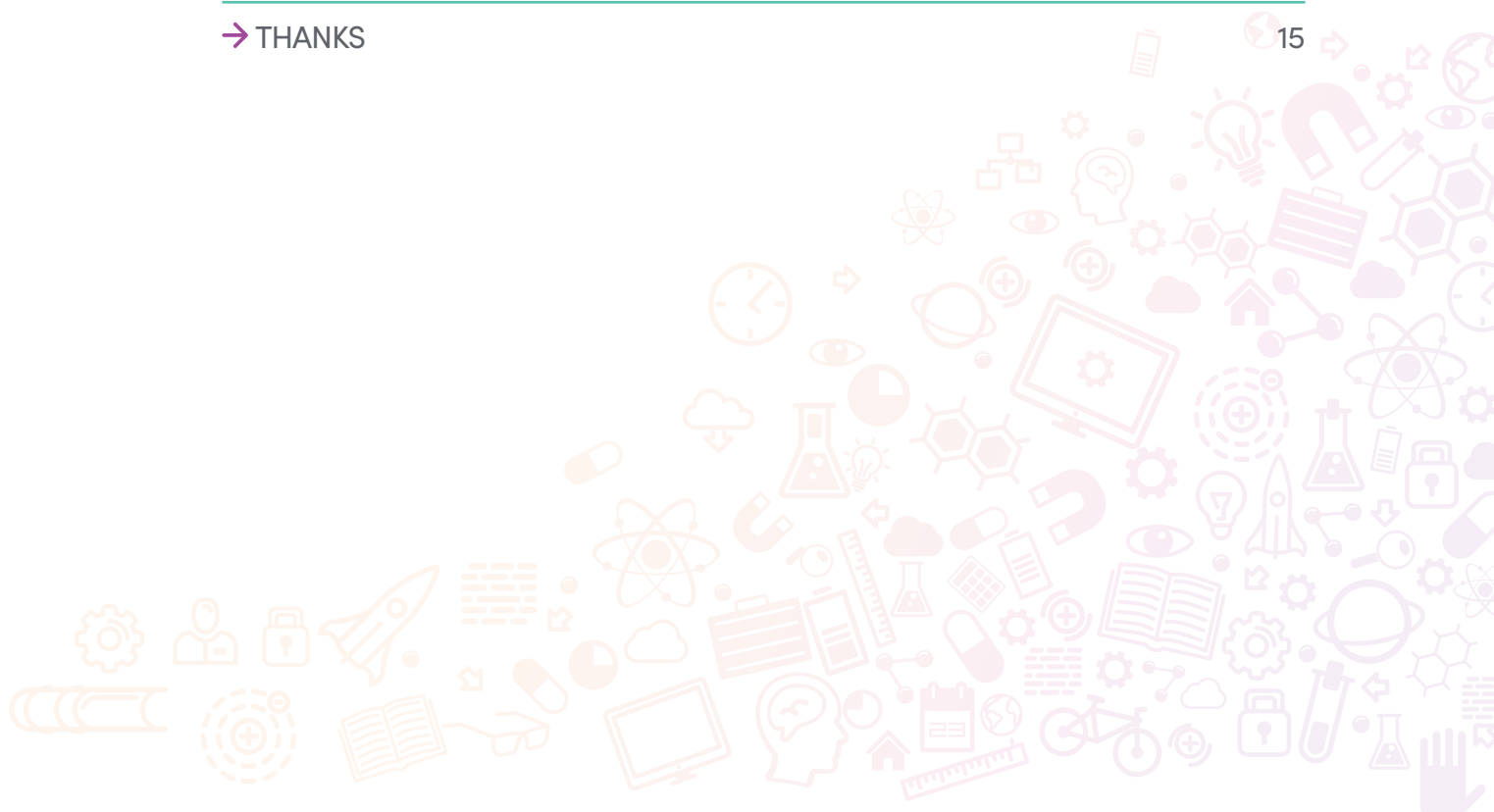
**SEGRO**

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## CEME'S ROLE IN SKILLS DEVELOPMENT

CEME was established in 2003 as a registered charity with the objective of contributing to the regeneration of the Thames Gateway region creating prosperity and jobs. For more than 20 years, the organisation has had strong partnerships in education and business, with local authorities and institutions.

CEME has also become a well-respected business campus providing premium, flexible workspace, workshops and events space for training, conferences and private hire. CEME remains a registered charity aspiring to make a difference to people's lives for the better.

CEME is based in Rainham, East London, an area surrounded by major urban and industrial developments, including the new Thames Freeport, film and production corridor, a new hydrogen infrastructure route and the relocation of London's famous food markets, all of which are driving the skills agenda with a focus on new green skills needed – both today and in the future.

Across the Thames Estuary and surrounding boroughs, it is estimated that 1.3 million new jobs will be created by 2050. CEME's role is to support local communities through education and upskilling, as well as supporting businesses by helping to deliver the workforce in the short and longer term.

To ensure our local communities benefit from these new jobs, CEME is working with several partners in the education, business, government and the charitable sectors to establish and support a range of key projects and initiatives around green skills.

We are proud to have delivered the Gateway to Skills Programme, which has kindly been sponsored by SEGRO, and supported by SEGRO volunteers. This report sets out the key findings and results from the programme, delivered between March 2022 and July 2023.



## IMPACTFUL STEM LEARNING AND ENGAGEMENT

Many of the new jobs set to be created within our boroughs will be in engineering, construction, technology and manufacturing, which is why it is important to support impactful STEM learning and engagement in our schools, and ensure our young people understand the career opportunities and pathways open to them.

The CEME Gateway to Skills initiative was relaunched at the end of March 2022, sponsored by SEGRO, to give local secondary school students aged 12-15 access to first class training and equipment to develop their science, technology, engineering and maths (STEM) skills.

The aim of this initiative is to complement the national curriculum by bringing STEM learning to school students in a fun, interactive and engaging way, encouraging our young people to follow pathways into STEM careers.

We work with professional STEM tutors to bring an exciting and hands-on experience to students, which includes a range of fun activities including the designing, building, and testing of crash proof and robotic vehicles, wind turbines, bridges, and a Mars landing rover. STEM days are held at our East London innovation campus during term time, providing a new and fun environment for learning outside of the school setting.



## OUR STEM PARTNERS

CEME is working with three STEM organisations to ensure our STEM Taster Days are the high-quality experience our education partners should expect.



### THE SMALLPEICE TRUST

The Smallpeice Trust is an educational charity which encourages young people into engineering careers. The founder, Dr Cosby Smallpeice, was a pioneering engineer who designed the Smallpeice Lathe and donated £1.6 million to start the charity in 1966. The organisation reaches young people through STEM days, engineering courses, scholarships and more.

The charity helps young people from all backgrounds across the UK to explore their interest in STEM subjects and engineering, delivering in-person and virtual STEM days for primary and secondary school students, running multi-day engineering courses at outstanding universities, and awarding prestigious, two-year Arkwright Scholarships to future engineering leaders.

[www.smallpeicetrust.org.uk](http://www.smallpeicetrust.org.uk)

“ At The Smallpeice Trust, we believe anything is possible when you know how, and we’re here to give young people everything they need to fuel their passion for engineering. We couldn’t do that without the support of the charities, parents, teachers, universities and corporate partners we work with every day. ”

## OUR STEM PARTNERS

### HANDS ON SCIENCE



**“** In 2006, we recognised that teachers faced a real challenge – lack of time to develop a range of practical science resources. So, we set up Hands on Science and developed a great catalogue of Primary and Secondary resources. **”**

Hands on Science is a national company providing practical science workshops to primary school children. STEM activities include Newton's racers, Mars landing and egg tower challenges. These activities encourage students to work in teams, and manage the design, building and testing of their ideas.

The organisation recognised that teachers faced lack of time to develop a range of practical science resources, as well as budget challenges and lack of storage, which made buying in experiments prohibitive too.

Hands on Science resources cover the New Primary Science Curriculum, fun Science Enrichment Themes and all four Secondary STEM subjects.

[www.hands-on-science.co.uk](http://www.hands-on-science.co.uk)

## OUR STEM PARTNERS

### JUNIORSTEM



**JuniorSTEM** 

JuniorSTEM provides both infant and junior classes with quality, practical cross curricular STEM workshops using the Lego WeDo and WeDo 2.0 robotics kits programming resources. The activities are highly engaging and encourage problem solving and working in pairs for communication and cooperation skills development.

A Lego robotics workshop by JuniorSTEM is a fun and exciting way to learn programming and engineering. All the activities are hands on, highly engaging and allow children to be creative.

[www.juniorstem.co.uk](http://www.juniorstem.co.uk)

“ Children are encouraged to play, experiment and try things out within a structured and organised learning environment. It’s great fun and packed full of learning. ”

## GATEWAY TO SKILLS STEM DAY IMPACT

Between March 2022 and July 2023, we have delivered our Gateway to Skills STEM day to:

**1,002 students**



**46%**  
Female



**48%**  
Male



**3%**  
Other

3% prefer not to say

### Local Authority student breakdown:

#### HAVERING

A total of  
**408**  
students

#### BARKING & DAGENHAM

A total of  
**402**  
students

#### NEWHAM

A total of  
**120**  
students

### Students that would now consider a career in STEM:

Male

**73%**

Female

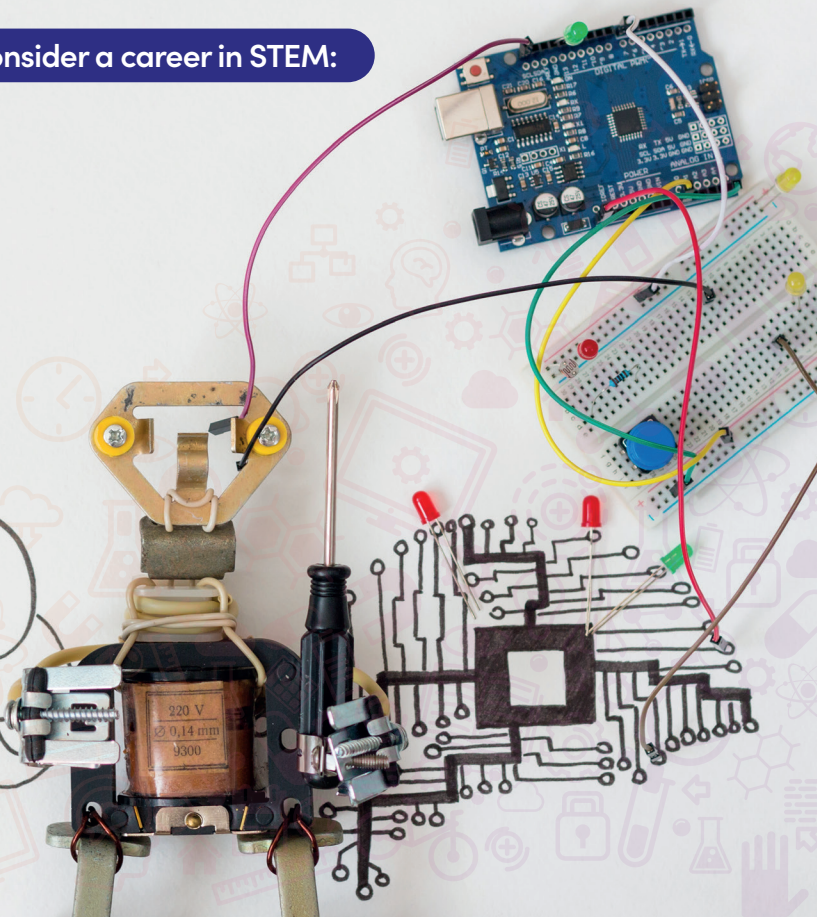
**49%**

Other

**58%**

Prefer not to say

**65%**





## HAVERING DATA



33 per cent of children in the borough lived in households with an income of less than 60 per cent UK median after housing costs have been subtracted in 2020/21. This was around the same as the average London borough.

In Havering, 21.6 per cent of residents were estimated to be earning below the Living Wage in 2021. This was around the same as the average London borough.

71.6 per cent of students achieved GCSE grades 9–4 in Maths and English in the 2021/2022 academic year, this is lower than the total for London boroughs of 74.3 per cent of all state educated students.

In 2022–2023, 15.4 per cent of school children are receiving free school meals, with 20.1 per cent of students eligible to receive them.

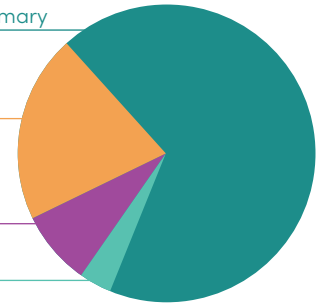
Havering has a total of 87 schools:

59 Infant, Junior and Primary

18 Secondary

3 Special Schools

7 Independent



## HAVERING DATA POINTS

480 students

Male

51%

Female

44%

Other

2%

Prefer not to say

2%

On a scale of 1 to 5 (5 being the highest), how enjoyable did you find today's session?

55%



39%



5%



1%



Those who would now consider a career in STEM

Male

75%

Female

30%

Other

78%

Prefer not to say

82%

OVERALL  
56%

Do you feel you have gained new skills today?



88%

Do you feel you have a better understanding of STEM?



94%

Have you learned something new today?



100%

Would you like more STEM activity days?



97%

## BARKING AND DAGENHAM DATA

### Barking & Dagenham

46 per cent of children in the borough lived in households with an income of less than 60 per cent the UK median after housing costs have been subtracted in 2020/21. This was worse than the average London borough.

In Barking and Dagenham, 26.3 per cent of residents were estimated to be earning below the Living Wage in 2021. This was worse than the average London borough.

68.5 per cent of students achieved GCSE grades 9-4 in Maths and English in the 2021/2022 academic year, this is lower than the total for London boroughs of 74.3 per cent of all state educated students.

In 2022-2023, 23 per cent of school children are receiving free school meals, with 28 per cent of students eligible to receive them.

Barking and Dagenham has a total of 69 schools:

45 Infant, Junior and Primary

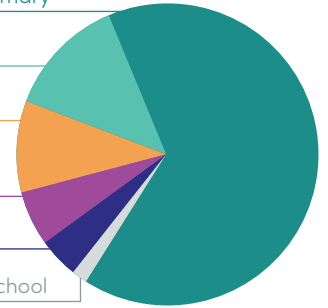
9 Secondary

7 Independent

4 all-through schools  
(Primary and Secondary)

3 Special Schools

1 Technical & Training School



## BARKING AND DAGENHAM DATA POINTS

402 students

Male

49%

Female

43%

Other

4%

Prefer not to say

4%

On a scale of 1 to 5 (5 being the highest), how enjoyable did you find today's session?

53%



30%



14%



3%



Those who would now consider a career in STEM

Male

75%

Female

64%

Other

47%

Prefer not to say

65%

OVERALL  
75%

Do you feel you have gained new skills today?



82%

Do you feel you have a better understanding of STEM?



87%

Have you learned something new today?



84%

Would you like more STEM activity days?



91%

## NEWHAM DATA



49 per cent of children in the borough lived in households with an income of less than 60 per cent the UK median after housing costs have been subtracted in 2020/21. This was worse than the average London borough.

In Newham, 24.5 per cent of residents were estimated to be earning below the Living Wage in 2021. This was around the same as the average London Borough.

76.3 per cent of students achieved GCSE grades 9-4 in Maths and English in the 2021/2022 academic year, this is higher than the total for London boroughs of 74.3 per cent of all state educated students.

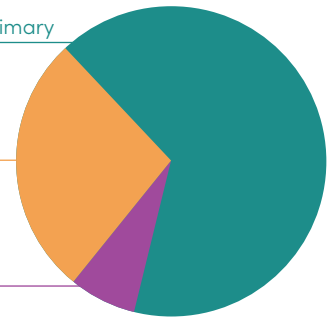
In 2022-2023, 24 per cent of school children are receiving free school meals, with 34 per cent of students eligible to receive them.

Newham has a total of 104 schools:

69 Infant, Junior and Primary

28 Secondary

7 Private



## NEWHAM DATA POINTS

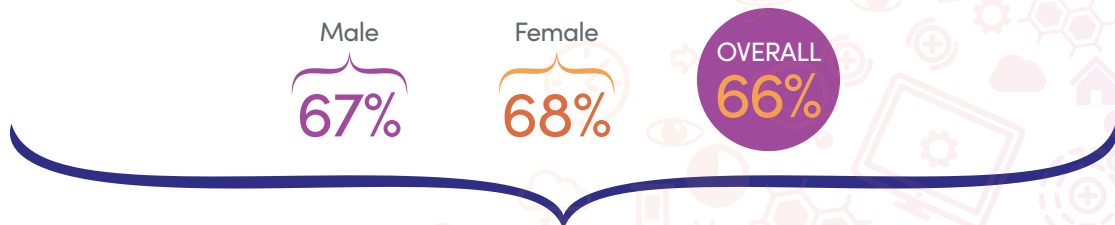
120 students



On a scale of 1 to 5 (5 being the highest), how enjoyable did you find today's session?



Those who would now consider a career in STEM



Do you feel you have gained new skills today? **89%**

Do you feel you have a better understanding of STEM? **85%**

Have you learned something new today? **85%**

Would you like more STEM activity days? **92%**

## TEACHERS' TESTIMONIALS

91% of teachers would like to request another STEM Day and

91% would recommend it to another school.

Each STEM Challenge Day is an interactive workshop which brings science, technology, engineering, and maths (STEM) to life, complementing the national curriculum.

Teachers have consistently rated their STEM Challenge Day as:

Standard of project:



Delivery of the day:



Teachers have confirmed that the STEM Challenge Day delivers on the following curriculum areas:

Maths

Science

Inclusion

Design and Technology

Learning and Thinking

★ *The event was very engaging, students really enjoyed themselves and learnt new skills.*

Teacher, Plashet School, Newham

★ *The students were engaged through our and loved completing the challenge.*

*Resources and delivery were excellent.*

Teacher, Abbs Cross Academy, Havering

★ *The deliverer was exceptional and was very hands on and patient, the event had clear learning out comes and showed the wider context of learning these skills.*

Teacher All Saints school, Barking and Dagenham

★ *The events are always fantastic!*

Teacher, Barking Abbey, Barking and Dagenham

★ *Fun, engaging and very informative.*

Teacher, Marshalls Park Academy, Havering

★ *Excellent delivery and project.*

Teacher, Redden Court School, Havering

★ *Very fun for young secondary students!*

Teacher, Robert Clack School, Barking and Dagenham

★ *High-quality delivery!*

Teacher, The Brittons Academy, Havering

★ *The event had clear learning out comes and showed the wider context of learning these skills.*

Teacher, All Saints School, Barking and Dagenham



## STUDENTS' TESTIMONIALS

★ *Thank you for helping me learn something new and discover how much I loved engineering.*  
Year 9 student, Redden Court School

★ *It was perfect and if I had another opportunity I would love to attend again.*  
Year 9 student, Barking Abbey

★ *Thank you for this opportunity, I've learnt a lot.*  
Year 8 student, Abbs Cross Academy

★ *Thank you very much its been the best school event ever!*  
Year 9 student, Barking Abbey

★ *I really enjoyed this session.*  
Year 9 student, All Saints School

★ *Thank you for giving us this great opportunity to learn more about careers in STEM. It was a lovely experience.*  
Year 8 student, Dagenham Park School

★ *Thank you for giving us a fun but challenging activity*  
Year 9 student, The Brittons Academy

★ *I learned teamwork and leadership skills.*  
Year 7 student, Plashet School

★ *We were able to build things that could help us in our future career.*  
Year 7 student, Plashet School

★ *We got to work with our friends in a cooperative way for a fun goal.*  
Year 8 student, Greatfields School

★ *I enjoyed the engineering, coding and the activities, we worked as a team.*  
Year 8 student, Greatfields School

★ *I enjoyed it as we learned about engineering and jobs around the world.*  
Riverside Bridge School

★ *I enjoyed being able to express my ideas through a fun and interactive activity.*  
Riverside Bridge School

### GATEWAY TO SKILLS STEM PROGRAMME 2022-2023 SCHOOLS:

- ★ The Brittons Academy
- ★ Hornchurch High School
- ★ Star Primary School
- ★ Dagenham CofE School
- ★ Redden Court School
- ★ Marshalls Park Academy
- ★ Robert Clack School
- ★ All Saints
- ★ Barking Abbey
- ★ Abbs Cross
- ★ Mawney Foundation School
- ★ Riverside Bridge School
- ★ Plashet School
- ★ Greatfields School
- ★ St. Angela's Ursuline

## INSPIRING THE NEXT GENERATION OF ENGINEERS

Research with students by EngineeringUK shows the power of role models.

Young people who met an engineer held more positive views of engineering (81% compared with 64% who did not).

Young people who spoke to someone about a career in STEM were more likely to see a career in engineering as desirable (71% compared to 53%) and have a good knowledge of next steps (73% compared to 54%).

As part of our Gateway to Skills STEM activity day, we provide a careers session inviting people from STEM backgrounds and industries in to talk about their career journey and running a Q&A session with the students.



## THANKS!



The SEGRO team has provided a number of volunteers throughout 2023, who have all given at least an hour of their time to support this programme. We would like to say a huge thank you to the following volunteers at SEGRO, and their Partners, Stantec and Knight Frank:

**Stephen Payne, Ian Turner, Bonnie Minshull, Lee Gibson, Christopher Turton, Ben Green, Emma Jenkins, Stuart McCallion, Piers Windsor, Lana Steele, Natalia Freeman, Charlotte Factor, Charley Davidok, Nick Banton, Paul Mussi (Knight Frank), Rachel Kirkwood (Stantec).**





[www.ceme.co.uk](http://www.ceme.co.uk)

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