

# IET Faraday® Challenge Days

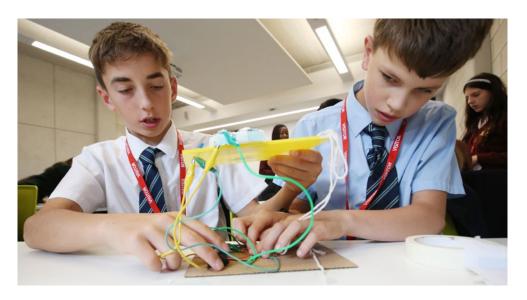


### IET Faraday® Challenge Days 2024-2025 Review

We are extremely proud to have delivered 310 IET Faraday<sup>®</sup> Challenge Days this season, with 740 schools, 1,749 teams and 10,152 students involved.

Our supporters and sponsors this year included GKN Automotive, R C Snelling Charitable Trust, RAF, Sellafield, The Ironmongers Foundation, The Reece Foundation and UKRI.

The theme for the 2024-2025 season was in association with UKRI's Faraday Battery Challenge and tasked teams to design a prototype that was capable of using a battery or batteries and could help someone from one of the following; a person with a disability or specific need, an educational toy for a child aged 2-5 years old or someone who takes part in a sport or outdoor activity whilst considering the sustainability of their product design, including how they will recharge their battery, how long their battery would last between charges and how they will dispose of their battery at the end of its lifespan.





Students were scored throughout the day on their planning and research; development and functionality of the product; use of budget; product engineering; the final presentation, and their teamwork and attitude throughout.

Members of each winning team won a trophy for their school and had their score added to the national league table. At the end of the season, the top six teams took part in the season's National Final.



### **National Final**

The National Final was held on 24th June 2025 at the University College Birmingham with the top 6 teams from the season's league table having to design and build a prototype toy for students aged 2-5 years old which would allow children to play together in one room.

The six national finalists included Rockport School from Northern Ireland, Denbigh School from Milton Keynes, Saddleworth School from Oldham, Cathedral School, Llandaff from Cardiff, and Redland Green School from Bristol and Lady Eleanor Holles School from London.



The final was judged by David Lakin, Head of Education, Events and Learning Services at The Institution of Engineering and Technology, Dr Ben Walsh, of UK Research and Innovation, Pritti Shoker, Battery Manufacturing Skills Pathway Project Manager at University College Birmingham and Mairi Kerin, Operations Manager at the Greater Birmingham and Solihull Institute of Technology. Teams were judged on their planning, development of product, use of budget, product engineering, presentation and teamwork.

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"I enjoyed the STEM Faraday Challenge because it was fun, educating and it made me think of becoming more of an engineer. It helped me to know that I can do more."

12-year-old-male

"It was a fun interactive experience that required a lot of resilience, but it help our team bond as friends and gave us an idea of the engineering world."

13-year-old-male

"Really fun would love it do it again, 100000%"

13-year-old-male

"I loved today. Thank you so much IET!"

13-year-old-female

After a very close competition with impressive presentations this season's winning team was Redland Green School from Bristol. The winning team designed a prototype 'Recycle Rush' which is a shape matching game that teaches children how to recycle.

It was an inspiring event for everyone involved and we are confident this season's challenge has given students an insight into the life of a real engineer, the variety a career in engineering can offer and just how exciting and creative engineering really is.



### **Quotes from professionals**

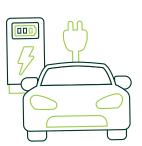
### **David Lakin**

IET Head of Events, Learning and Education Services

"As we conclude the 14th year of the IET Faraday® Challenge Days, the 2024–25 season has marked our most successful yet. We delivered 310 challenge days across the UK, reaching over 10,000 students. Alongside our wider IET education initiatives and support from education delivery partners, this has enabled us to connect with more schools than ever before, helping to spark interest in STEM subjects and inspire young people to consider careers in engineering.

"With the growing demand for strong STEM skills, the Institution of Engineering and Technology remains committed to its mission to INSPIRE the next generation of engineers. Through programmes like the IET Faraday® Challenge Days, we are proud to give students the chance to tackle real-world engineering challenges and develop valuable skills.

"A heartfelt congratulations to all the teams who took part in this year's challenge – we are truly impressed by your creativity and commitment. And a special thank you to UKRI for supporting this season as theme partner, and to all our other funders and whose involvement makes this initiative possible."



### Dr Ben Walsh UKRI's Faraday Battery Challenge

"It's been incredibly inspiring to see the creativity, teamwork and engineering skills demonstrated by these young minds. The IET Faraday® Challenge not only highlights the talent we have across the UK, but also shows how early engagement with STEM can ignite a lifelong passion.

"Congratulations to the winning team from Redland Green School their innovative approach and enthusiasm for problem-solving truly impressed us. At UKRI, we're proud to support initiatives like this that help shape the engineers and innovators of tomorrow."

### Pritti Shoker University College Birmingham

"It was a real honour for University
College Birmingham to host this
year's challenge final. I felt privileged to have
been asked to judge, but it was no easy task!

"The participants demonstrated a clear understanding of the brief and presented some surprising and clever solutions. Their enjoyment of the challenge was obvious to everyone there and the innovative thinking and collaborative working on show bodes well for the future of STEM subjects.

I'd like to wish Redland Green School many congratulations!"



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### Student quotes

"I really enjoyed the challenge today and enjoyed having the opportunity to work with new people. I didn't know I enjoyed STEM before, but I definitely do."

12-year-old female

"I enjoyed today as I liked working in a team I wouldn't usually work in, I enjoyed learning new things and having the chance to make a product to help the battery challenge."

13-year-old female

"The challenge leader was awesome! The IET Faraday Challenge Day was the best!"

12-year-old male

"A very enjoyable experience overall. You should create 3 levels of the challenge so that y7, 8 and 9s can take part just at a higher or lower level."

12-year-old-female

"I really enjoyed today, I am trying my best to be like my dad working in the royal navy as an engineer, thanks a lot."

12-year-old-male

"I loved the IET Faraday Challenge, it was so fun to make designs people have never made before. If I could do this again I would."

12-year-old-male

"I'm very happy after today because I learnt something, I love engineering!!! Want to be a software engineer or data analyst. Many thanks for today."

12-year-old-female



# Student quotes

"This was a very nice and eventful day for me, I love the IET Faraday® Challenge, it is definitely something that I won't regret for the rest of my life."

13-year-old-male

"I'm honoured to have been offered the opportunity to represent my school, and I love that opportunities like these can be given to many pupils. From the bottom of my heart, thank you!"

12-year-old-male

"Best thing so far in yr 8! Overall super fun and engaging!"

13-year-old-male

"Fun opportunity (would recommend) ☆☆☆☆☆"

13-year-old-female

"This was so different from the science competition I thought was going to take place. Instead of sitting science papers all day, we actually merged ICT, engineering & science all together!"

12-year-old-female

"I think the world needs people with skills, knowledge and creativity to build and create things that will help improve our society."

13-year-old-female



### Headline statistics from the full season

No. of events: 310

No. of schools: 740 including 2 SEND schools and 1 home educated team

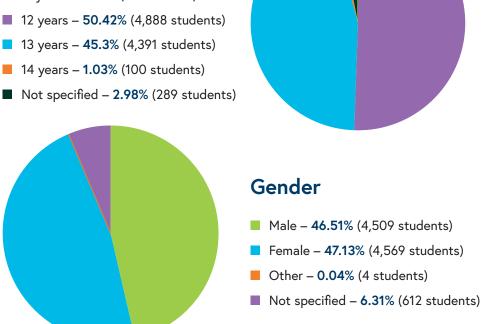
No. of teams: 1,749

No. of students: 10,188

Engaged with 262 schools or 35% schools defined as hard to reach (high percentage of free school meals, rural schools and social mobility indicators).

### Age

- 11 years **0.27**% (26 students)
- 12 years **50.42**% (4,888 students)



### Student feedback

Feedback gathered from 9,694 students. The following stats represent the % of students who were in agreement with these statements:

<ul> <li>I enjoyed the Faraday Challenge</li> </ul>	96%
- I learnt new things	93%
<ul> <li>I now understand more about what engineering is</li> </ul>	92%
<ul> <li>I have a better idea about what engineers do and the skills they need</li> </ul>	92%
<ul> <li>Before today I was considering studying or working in engineering</li> </ul>	33%
- Following this event I am now considering studying or working in engineering	51%
– I'd like to do something like this again	93%

### Student quotes

"Lovely idea, I didn't feel like I was at school with how much fun I had." 12 year old male

"I really enjoyed the challenge, I will be thinking about having engineering as a apprentice option".

12 year old male

"I had a good time today, not only did I work on my science but also my social skills."

13 year old female

"It was a fun day that improved my problem solving. I feel it has benefited me in many ways and improved my understanding of engineering."

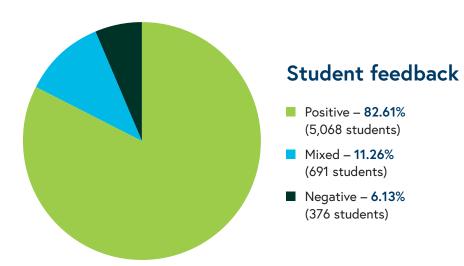
13 year old female

"I enjoyed this event because we don't get many lessons like this."

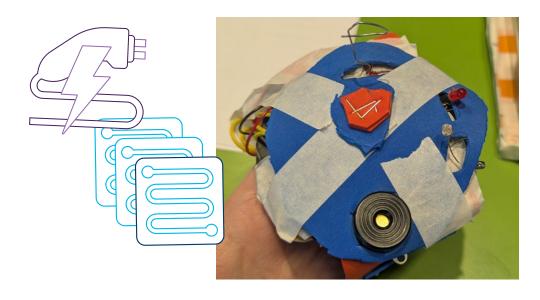
13 year old female



55% increase in students who after taking part in an IET Faraday® Challenge Day would now consider studying or working in engineering.









### Teacher feedback

Feedback gathered from 842 teachers. The following stats represent the % of teachers who were in agreement with these statements:

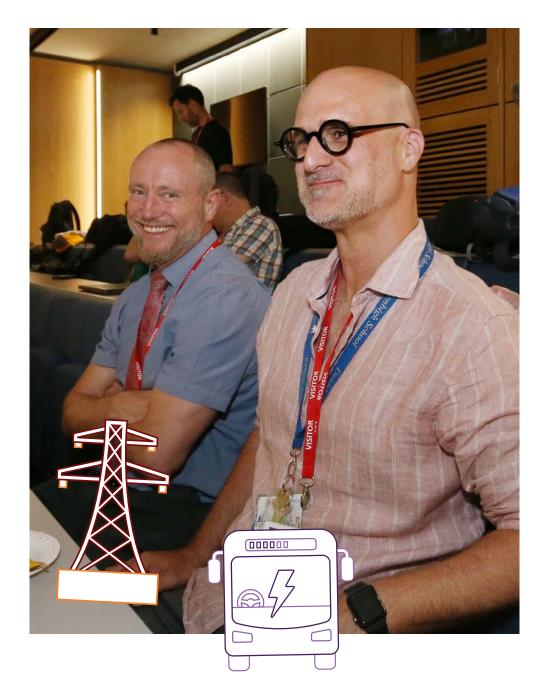
<ul> <li>The level of complexity was suitable for a National STEM challenge at students aged 12-13 years</li> </ul>	e aimed 98%
- The interest of the students was retained throughout the day	98%
- The students learnt new concepts and expanded their knowledge	base <b>98</b> %
<ul> <li>The registration process was straightforward with enough time to for the event</li> </ul>	plan <b>98</b> %
- I would be interested in taking part next year	98%
- I would recommend the IET Faraday Programme to other teachers	98%

# Teacher quotes

"Excellent day all round. This event has been absolutely amazing already! The children have not gone five minutes without telling me how much fun they are having. The staff have been extremely engaging, friendly and enthusiastic. I will definitely be attending another day!"

"Fun! I think my school would make it a full school challenge day as it generates so many ideas!"

"A really fantastic day thanks so much. It was wonderful to see the girls confidence grow throughout the day as the activities and delivery were pitched perfectly so the girls could make progress and really enjoy the challenge. It was a really fun day that got the pupils working in teams and out of their comfort zone! We all had a great time!"





### Theme partner



### National partner



### **Donors**









## Sellafield Ltd

### Special thanks

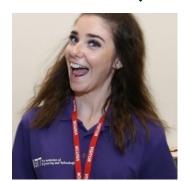
IET Faraday® Challenge Days really do inspire students and raise the profile of STEM overall.

The IET Faraday® Challenge has this year reached more young people thanks to the generosity of companies who have funded individual events or contributed towards the core IET events and online teaching resources.

A huge thank you to you all.

The next generation of engineers will have better skills thanks to their IET Faraday® Challenge experiences and that is thanks to you.







# And not forgetting our 2024-2025 season delivery partners



We are proud to work with some fantastic partners who help bring IET Faraday® Challenge Days to life across the UK.

During the 2024 - 2025 season of IET Faraday® Challenge Days we had the following IET Faraday® regional delivery partners:

- All About STEM
- Canterbury Christ
   Church University
- Cognition Creative Learning CIC
- Cornwall Council
- Direct Education
   Business Partnership
   CIO
- Glasgow Science Centre
- Graphic Science
- Leicester Education Business Company

- National Motor Museum
- Newcastle United Foundation
- See Science
- Sentinus
- STFMFirst
- STEMPOINT
- Tablet Academy
- The Inspirational Learning Group
- W5



### The IET funded IET Faraday® Challenge Days

No. of events: 276, No. students: 9,081, No. of schools: 672

Date	Host organisation	Region
05 September 2024	Wallace High School hosting at W5	Northern Ireland
23 September 2024	Clyst Vale Community College	Devon
27 September 2024	Helston Community College	Cornwall
01 October 2024	The Bromfords School	Essex
07 October 2024	St Mary's Catholic High School	Lancashire
07 October 2024	Maynard School	Devon
08 October 2024	The Rural Enterprise Academy	Staffordshire
10 October 2024	North Liverpool Academy	Liverpool
10 October 2024	The Ripley Academy	Derbyshire
11 October 2024	Chulmleigh College	Devon
14 October 2024	Shebbear College	Devon
14 October 2024	Ysgol Henry Tudor	Pembrokeshire
15 October 2024	Liskeard School & Community College	Cornwall
16 October 2024	Academy @ Worden	Lancashire
16 October 2024	Parkfields Middle School	Bedfordshire
16 October 2024	The Ravensbourne School	Bromley
17 October 2024	Neston High School	Cheshire
17 October 2024	Christ the King College	Isle of Wight
18 October 2024	Ysgol Maes Garmon	Flintshire
21 October 2024	St Peter's Church of England Aided School	Devon
22 October 2024	The Watercress Line (Mid-Hampshire Railway)	Hampshire
23 October 2024	Shinma Integrated College	Newcastle
24 October 2024	Arnold Academy	Bedfordshire
24 October 2024	Tarporley High School	Cheshire

### Student feedback

Feedback gathered from 8,640 students.

Age: 11: 26 (0.3%) 12: 4,412 (51.06%), 13: 3,882 (44.93%), 14: 82 (0.95%),

Not specified: 238 (2.75%)

Gender: Male: 3,981 (46.07%), Female: 4,121 (47.7%), Other: 4 (0.05%),

Not specified: **534** (6.18%)

The following stats represent the % of students who were in agreement with these statements:

– I enjoyed the Faraday® Challenge Day	96%
- I learnt new things	93%
<ul> <li>I now understand more about what engineering is</li> </ul>	93%
- I have a better idea about what engineers do and the skills they need	93%
<ul> <li>Before today I was considering studying or working in engineering</li> </ul>	32%
- Following this event I am now considering studying or working in engineering	51%
<ul> <li>I'd like to do something like this again</li> </ul>	93%

Date	Host organisation	Region
24 October 2024	Oasis Academy Don Valley	South Yorkshire
24 October 2024	Norton Hill School	Bath
04 November 2024	Ripley St Thomas CofE Academy	Lancashire
05 November 2024	Darwin Centre	Pembrokeshire
06 November 2024	Oaklands Catholic School and Sixth Form College	Hampshire
06 November 2024	St Olave's Grammar School	Kent
07 November 2024	Fred Longworth High School	Greater Manchester
07 November 2024	Coláiste Feirste	Belfast
11 November 2024	Alsager School	Cheshire
12 November 2024	Fallibroome Academy	Cheshire
12 November 2024	National Motor Museum	Hampshire
12 November 2024	Rednock School	Gloucestershire





Date	Host organisation	Region
12 November 2024	Edmonton County School	Enfield
12 November 2024	Sir John Nelthorpe School	North Lincolnshire
13 November 2024	National Motor Museum	Hampshire
13 November 2024	Nonsuch Nigh School	Surrey
13 November 2024	Treviglas Academy	Newquay
13 November 2024	Trinity Catholic School	Nottinghamshire
14 November 2024	National Motor Museum	Brockenhurst
14 November 2024	Riddlesdown Collegiate	Surrey
14 November 2024	Penglais School	Aberystwyth
18 November 2024	Baines School	Lancashire
18 November 2024	Budehaven School	Cornwall
19 November 2024	Cobham Hall	Kent

Date	Host organisation	Region
19 November 2024	West Coventry Academy	West Midlands
20 November 2024	The Deanery CE Academy	Swindon
21 November 2024	Hethersett Academy	Norfolk
21 November 2024	St Cyres School	Vale of Glamorgan
21 November 2024	Ysgol Friars	Bangor
22 November 2024	Wadebridge School	Cornwall
22 November 2024	Sperrin Integrated College	Magherafelt
25 November 2024	Somerhill School	Kent
25 November 2024	Mary Webb School & Science College	Shropshire
25 November 2024	St Mary's High School	Northern Ireland
26 November 2024	Yateley Manor School	Hampshire
26 November 2024	Belper School and Sixth Form Centre	Derbyshire
27 November 2024	St James School	North East Lincolnshire
27 November 2024	Wellington School	Greater Manchester
27 November 2024	King James Academy	Hertfordshire
28 November 2024	Winterbourne Academy	Bristol
28 November 2024	Elfed High School	Flintshire
29 November 2024	Caldicot School	Monmouthshire
29 November 2024	Pilton Community College	Devon
29 November 2024	Darland High School	Wrexham
29 November 2024	King Edward VI Lordswood School for Girls	Birmingham
02 December 2024	Great Ballard School	West Sussex
03 December 2024	Cefn Saeson Comprehensive	Neath
03 December 2024	Sir James Smith's School	Cornwall
03 December 2024	Down High School	Northern Ireland
04 December 2024	The Reach Free School	Hertfordshire
05 December 2024	West Hill School	Greater Manchester

### Teacher feedback

Feedback gathered from 744 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	The level of complexity was suitable for a National STEM challenge aimed at students aged 12-13 years	98%
-	The interest of the students was retained throughout the day	98%
-	The students learnt new concepts and expanded their knowledge base	98%
-	The registration process was straightforward with enough time to plan for the event	97%
_	I would be interested in taking part next year	98%
_	I would recommend the IET Faraday Programme to other teachers	98%

# Teacher quotes

"Interesting topic, really well organised and the children enjoyed it and produced great prototypes."

"Brilliant day! Super organised. The delivery was great. A great chance for teachers to network too."

"A fabulous opportunity to enrich and engage our students in the real world of engineering!"

"Very impressed with the programme. Students were thoroughly engaged throughout the whole day, and provided great entertainment for the teachers too! :)"

"Would 100% take part again ..... Please!"

"It is lovely to see our students having a genuine interest in science."

"Great day, well organised and delivered with expertise."

"As always, a really great competition and it was amazing to see the ideas that were produced."

Date	Host organisation	Region	
05 December 2024	Bangor University	Bangor	
06 December 2024	The Royal Liberty School	Essex	
09 December 2024	Fleetwood High School	Lancashire	
09 December 2024	Longfield Academy	Kent	
10 December 2024	Ormiston Bushfield Academy	Cambridgeshire	
11 December 2024	Darwen Aldridge Community Academy	Lancashire	
11 December 2024	Chosen Hill School	Gloucester	
12 December 2024	St Felix School	Suffolk	
12 December 2024	St Aidan's C of E High School	North Yorkshire	
18 December 2024	The Green School for Girls	London	
09 January 2025	Aston Academy	South Yorkshire	
09 January 2025	Portsmouth University	Hampshire	
09 January 2025	Oxford Brookes University	Oxfordshire	
13 January 2025	Kingsley School	Devon	
13 January 2025	Hutton C of E Grammar School	Lancashire	
13 January 2025	St Paul's High School	Northern Ireland	
14 January 2025	Wycombe Abbey	Buckinghamshire	
14 January 2025	National Motor Museum	Hampshire	
14 January 2025	Selwood Academy	Frome	
15 January 2025	Queen Anne's School	Berkshire	
15 January 2025	National Motor Museum	Hampshire	
15 January 2025	Cathedral School, Llandaff	Cardiff	
15 January 2025	Wade Deacon High School	Cheshire	
16 January 2025	Maghull High School	Liverpool	
16 January 2025	Plymouth University	Devon	
16 January 2025	Trinity Academy St Edward's	South Yorkshire	
16 January 2025	National Motor Museum	Hampshire	
17 January 2025	The Tiffin Girls' School	Kingston upon Thames	4-



Date	Host organisation	Region
17 January 2025	Penryn College	Cornwall
20 January 2025	Ribblesdale School	Lancashire
21 January 2025	Croydon High School	Surrey
21 January 2025	Wildern School	Hampshire
22 January 2025	University of Lincoln	Lincolnshire
22 January 2025	Little Heath School	Berkshire
22 January 2025	Castleford Academy	West Yorkshire
22 January 2025	Wells Cathedral School	Somerset
22 January 2025	CBS Omagh	Northern Ireland
23 January 2025	Philip Morant School & College	Essex
23 January 2025	Noel-Baker Academy	Derbyshire
23 January 2025	North Leamington School	Warwickshire
23 January 2025	Coombe Wood School	Croydon
24 January 2025	Blackpool Aspire Academy	Lancashire
27 January 2025	Enniskillen Royal Grammar School	Northern Ireland
28 January 2025	Mosslands School	Wirral
28 January 2025	Saltash Community School	Cornwall
29 January 2025	Dowdales School	Cumbria
29 January 2025	The Costello School	Hampshire
29 January 2025	RGS Worcester	Worcestershire
30 January 2025	Folkestone Girls	Kent
30 January 2025	Granville Academy	Derbyshire
30 January 2025	Thomas Alleyne Academy	Stevenage
30 January 2025	Bridgewater College Academy	Somerset
31 January 2025	Rockport School	Northern Ireland
03 February 2025	Torpoint Community College	Devon
03 February 2025	Fulwood Academy	Lancashire

# Student quotes

"I really liked it today, it was fun to learn about how some small electronics can help someone in everyday life."

### 12-year-old-male

"Whilst I liked the challenge it really stressed me out and made me feel really tired after I did enjoy the creative aspect a lot though."

#### 12-year-old-female

"Great day, very fun and enjoyable. Really liked the concept of managing money and managing stressful situations!"

### 12-year-old-male

"I really appreciate the IET choosing our school, I loved today. Thank you."

12-year-old-female

"Thank you! I really enjoyed it, building and creating a products, I learnt a lot! Thanks again."

#### 12-year-old-female

"I loved today because I was thinking of being an engineer beforehand, but now I am passionate about it! Thanks!"

#### 12-year-old-female

"It was very fun and interesting and gave us a chance to show our creativity."

13-year-old-male

"I loved using creativity and teamwork as they are life skills and could help me in my future career."

#### 12-year-old-female

"10/10 would do again!"

### 12-year-old-male

"I enjoyed today because it was very out of the ordinary and was very fun."

12-year-old female

"I loved today because I got to use my creativity, I would like to do this again."

12-year-old female







Date	Host organisation	Region
12 February 2025	Redruth School	Cornwall
13 February 2025	Southfield School	Northamptonshire
13 February 2025	Djanogly City Academy	Nottinghamshire
13 February 2025	Lancaster Girls' Grammar School	Lancashire
13 February 2025	Sarah Bonnell School	Stratford
14 February 2025	Rhosnesni High School	Wrexham
17 February 2025	Mountain Ash Comprehensive School	Cardiff
18 February 2025	Friends' School Lisburn hosted at W5	Northern Ireland
20 February 2025	John Beddoes Campus – Newtown High School	Powys
24 February 2025	Glasgow Science Centre	Glasgow
24 February 2025	Ballymena Academy	Northern Ireland
25 February 2025	Brannel School	Cornwall
25 February 2025	Glasgow Science Centre	Glasgow
26 February 2025	Glasgow Science Centre	Glasgow
27 February 2025	Prestfelde School	Shropshire
27 February 2025	The Kimberley School	Nottinghamshire
27 February 2025	Ellesmere Port Catholic High School	Cheshire



# Teacher quotes

"Every student got something out of it. The Challenge Leader was great getting the best from students."

"The competitive engaging nature of the challenge was a fabulous match to our students."

"Constructive and enjoyable event once again. Students seemed to gain a lot from it and the adults get to learn/remember things too, so all round good going!"

"Excellent opportunity for the students to combine a variety of disciplines - not something they get to do with most curriculum."

"This was a brilliant challenge for the kids and gave them a chance to learn new skills and processes to take and apply elsewhere."

"A fantastic opportunity for the students to work a real life brief. Great to do this live with other schools. Thank you for your positivity and energy."

"The students were engaged and excited throughout. An excellent activity which was led extremely well. A great day, a great challenge!"

"Once again, a thoroughly well-planned and delivered day. Students gained so much!"

Date	Host organisation	Region
28 February 2025	Saffron Walden County High School	Essex
28 February 2025	Prestwick Airport	Glasgow
03 March 2025	Tauheedul Islam Girls High School and Sixth Form College	Lancashire
03 March 2025	St Dominic's Grammar School	Belfast
04 March 2025	Sharnbrook Academy	Bedfordshire
05 March 2025	Elizabeth Woodville School	Northampton

Date	Host organisation	Region
05 March 2025	Highsted Grammar	Kent
05 March 2025	St Columbanus College	Bangor
06 March 2025	Gosfield School	Essex
06 March 2025	Birkdale High School	Lancashire
07 March 2025	Thomas Estley Community College	Leicester
07 March 2025	UWE	Bristol
10 March 2025	St Oscar Romero	West Sussex
10 March 2025	Parkside Middle School	Worcestershire
11 March 2025	Newbridge School	Caerphilly
11 March 2025	Rainham Mark Grammar School	Kent
11 March 2025	Portsmouth University	Hampshire
12 March 2025	Brian Clarke CE Academy	Greater Manchester
12 March 2025	Bournemouth Uni	Dorest
13 March 2025	Canterbury Christ Church University	Kent
13 March 2025	Ashfield School	Nottinghamshire
13 March 2025	Rydal Penrhos	Conwy
13 March 2025	Kinver High School	Staffordshire
14 March 2025	Malvern St James School	Worcestershire
14 March 2025	Ysgol Clywedog	Wrexham
17 March 2025	Casterton College	Rutland
17 March 2025	St Gabriel's School	Berkshire
17 March 2025	Broughton High School	Lancashire
17 March 2025	Ysgol Glan Clwyd	Denbighshire
18 March 2025	The Marist School	Berkshire
18 March 2025	St John's Marlborough	Wiltshire
18 March 2025	Thomas Gainsborough School	Suffolk
18 March 2025	Everton In The Community	Liverpool

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### tudent quotes



"This was an amazing experience, and I learnt so many new things about engineering! I loved that I was actually able to do something hands-on and it has developed my teamwork and building skills, as well as being able to put together a good presentation."

### 13-year-old-female

"It was brill great learning! It really helps kids learn and maybe start engineering!"

### 12-year-old-female

"I had an amazing time doing this with my form. I would love to do this again 100000000%"

#### 13-year-old-female

"I really liked this and how positive everyone is and if this happened again I would love to do it again - I also loved how I could show my creativity and surprisingly really liked this!"

### 12-year-old-female

"Even though I do prefer working on my own, this challenge has taught me that sometimes teams are going to be the best option!"

### 13-year-old-male

"I really enjoyed today, this was a great experience, and it has made many more opportunities for me and a possible engineering future."

### 13-year-old-male

"I have really enjoyed myself today and am now definitely considering taking GCSE Engineering."

### 12-year-old-female

"I really enjoyed this, and I think it is an amazing thing to do! I am now considering looking further into doing engineering. Maybe we could mix schools together in groups next time!"

### 12-year-old-female

Date	Host organisation	Region
19 March 2025	The Burgess Hill Academy	West Sussex
19 March 2025	Hornsea School	East Yorkshire
19 March 2025	CwmTawe Comprehensive School	Swansea
19 March 2025	Clounagh Junior High	Craigavon
20 March 2025	Peacehaven Community School	East Sussex
20 March 2025	Ballyclare High	Northern Ireland
24 March 2025	Gatwick Airport	West Sussex
24 March 2025	Denstone College	Staffordshire
24 March 2025	Beaumont School	Hertfordshire
24 March 2025	Bangor Grammar	Bangor
25 March 2025	Northampton Academy	Northamptonshire
25 March 2025	Gatwick Airport	West Sussex
25 March 2025	Penair Secondary School	Cornwall
26 March 2025	Abbey Park School	Wiltshire
26 March 2025	Gatwick Airport	West Sussex

# 4

### Student quotes

"I loved today I learnt so many things. This was very fun and I would love to do it again if I got the chance."

### 12-year-old female

"I enjoyed today because it was very out of the ordinary and was very fun."

### 12-year-old female

"I loved today because I got to use my creativity, I would like to do this again."

### 12-year-old female

"I enjoyed this experience as it was never anything I had considered before."

12-year-old female





Date	Host organisation	Region
26 March 2025	Rishworth School	Yorkshire
26 March 2025	Aberdeen Science Centre	Aberdeen
27 March 2025	Gatwick Airport	West Sussex
27 March 2025	Littleover Community School	Derbyshire
27 March 2025	Catmose College	Rutland
27 March 2025	Montrose Museum	Angus
28 March 2025	Horizon Community College	South Yorkshire
28 March 2025	Mounts Bay Academy	Cornwall
31 March 2025	Dominican College	Northern Ireland
01 April 2025	The Gilberd School	Essex
01 April 2025	Armadale Academy	West Lothian
02 April 2025	Perth Art Gallery	Perth
02 April 2025	William Farr School	Lincolnshire
02 April 2025	St Boniface's Catholic College	Devon
03 April 2025	University of Nottingham	Nottinghamshire
03 April 2025	Pontarddulais Comprehensive School	Swansea
03 April 2025	Bodmin College	Cornwall
03 April 2025	The Castle School	Somerset

Date	Host organisation	Region
03 April 2025	Edinburgh College	Edinburgh
07 April 2025	Lagan College	Belfast
09 April 2025	Rawlins Academy	Loughborough
11 April 2025	Ysgol Uwchradd Tywyn	Gwynedd
22 April 2025	Saint Julie's Catholic High School	Liverpool
23 April 2025	Darrick Wood School	Bromley
24 April 2025	Deyes High School	Liverpool
24 April 2025	St George's Academy	Lincolnshire
28 April 2025	St George's Weybridge	Surrey
28 April 2025	DHSG Plymouth	Devon

# Student quotes

"I loved today I learnt so many things. This was very fun and I would love to do it again if I got the chance."

12-year-old female

"I enjoyed this experience as it was never anything I had considered before."

12-year-old female

"It really helped me learn new skills about circuits and engineering."

12-year-old female

"I want to be an engineer now."

12-year-old female

"This event was a joy to take part in today."

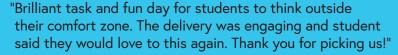
12-year-old male

"A lot of fun, missed a day of school which is very good I would 100% do this again!"

12-year-old male

# <u>66</u>

### Teacher quotes



"Fun day and lovely to see students do science outside of classroom!"

"Another thoroughly engaging engineering day. Schools were busy and enjoyed themselves. A great way to spark ideas of engineering in the future for our young students. The challenge leaders worked really hard with the students and it was a really positive day for us all."

"This challenge was fantastic opportunity for our students. There was enough to keep them enthusiastic and focused throughout the day. I am very impressed with the result of the day."

"Fantastic day, well planned. Pupils got a lot out of it. Many varied skills beyond engineering so has been practical. Thanks."

"A fantastic day - I have been so impressed with the quality of the delivery of the day. You are all fabulous and can't wait until next year!"

"Excellent day! These pupils had an amazing experience and have shown me what their capabilities are! Thank you."

"Really great session. It was well run and timed really well. The children were very engaged and seemed to really enjoy themselves. This gave the students an opportunity to use their knowledge and expand upon it. It allowed for a lot of teamwork and creativity."

"Got students to consider a career and get involved with engineering. Brilliant opportunity for students to be a creative and to overcome setbacks and handle challenges."

"A fantastic day - students were challenged and learned lot of transferrable skills."

"Very well led and good variety of pathways. Thank you."







# GKN Automotive funded IET Faraday® Challenge Days

No. of events: 1, No. students: 36, No. of schools: 3

Date	Host organisation	Region
23 January 2025	Aureus School	Oxfordshire

### Student feedback

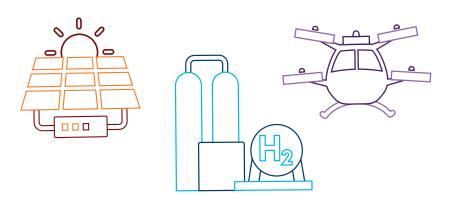
Feedback gathered from 36 students.

Age: 12: 18 (50%), 13: 18 (50%)

Gender: Male: 20 (55.56%), Female: 14 (38.89%), Not specified: 2 (5.56%)

The following stats represent the % of students who were in agreement with these statements:

_	I enjoyed the Faraday Challenge	94%
_	I learnt new things	91%
_	I now understand more about what engineering is	97%
_	I have a better idea about what engineers do and the skills they need	94%
_	Before today I was considering studying or working in engineering	44%
_	Following this event I am now considering studying or working in engineering	<b>57</b> %
_	I'd like to do something like this again	100%



# Student quotes

"I enjoyed the day, meeting new people was fun!"

13-year-old female

"I think this was a really interesting learning experience."

13-year-old female

"Very good would definitely do again! Been thinking of doing engineering since I was about 10."

12-year-old male

"Very interesting seeing the flow of the project."

12-year-old female

"I had a lot of fun - it was a good day. Now I understand more about circuits and engineering."

12-year-old female

"Amazing!!!!!!!"

12-year-old male



### Teacher feedback

Feedback gathered from 4 teachers. The following stats represent the % of teachers who were in agreement with these statements:

_	The level of compl	lexity was suitable for a National STEM challenge
	aimed at students	aged 12-13 years

The interest of the students was retained throughout the day
 100%

- The students learnt new concepts and expanded their knowledge base 100%

 The registration process was straightforward with enough time to plan for the event

I would be interested in taking part next year

I would recommend the IET Faraday Programme to other teachers



# Teacher quotes

"It was remarkable how varied, intricate and inventive their engineering prototypes were. It was a really great day!"

"It was a pleasure to host as all very organised and communication was brilliant. Fantastic day!"

"Very well organised. Presenter was very good, clear instructions and expectations."













# R C Snelling Charitable Trust funded IET Faraday® Challenge Days

No. of events: 2, No. students: 69, No. of schools: 4

Date	Host organisation	Region
28 March 2025	Downham Market Academy	Norfolk
29 April 2025	Alderman Peel High School	Norfolk



# R.C.Snelling Charitable Trust

### Student feedback

Feedback gathered from 69 students.





Age: 12: 24 (34.78%), 13: 44 (63.77%), Not specified: 1 (1.45%)

Gender: Male: 33 (47.83%), Female: 34 (49.28%), Not specified: 2 (2.9%)

The following stats represent the % of students who were in agreement with these statements:

<ul> <li>I enjoyed the Faraday Challenge</li> </ul>	100%
- I learnt new things	94%
<ul> <li>I now understand more about what engineering is</li> </ul>	96%
<ul> <li>I have a better idea about what engineers do and the skills they need</li> </ul>	93%
<ul> <li>Before today I was considering studying or working in engineering</li> </ul>	<b>19</b> %
- Following this event I am now considering studying or working in engineering	<b>37</b> %
- I'd like to do something like this again	94%

# Student quotes

"I found the day enjoyable as I was able to work in a team and use our imaginations to create a project."

13-year-old female

"I liked working in a group to create something together."

13-year-old male

"I enjoyed it. I'm thinking of doing engineering for my GCSE's and now I know what it is like, I would do it again."

13-year-old male

"Thank you for this opportunity, it really inspires me to believe that you can make nearly everything if you put your mind to it. I love inventing things!"

13-year-old female

"I enjoyed making the prototype and I learnt more about engineering and the skills required."

12-year-old female

"I liked managing the money for my team and buying things because I felt responsible."

12-year-old male

"I really enjoyed this day, the staff was really helpful and supportive, and it was overall a very interesting experience."

12-year-old female





### Teacher feedback

Feedback gathered from 6 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	<ul> <li>The level of complexity was suitable for a National STEM challenge aimed at students aged 12-13 years</li> </ul>	100%
-	- The interest of the students was retained throughout the day	100%
-	The students learnt new concepts and expanded their knowledge base	100%
-	- The registration process was straightforward with enough time to plan for the event	100%
-	- I would be interested in taking part next year	100%
_	- I would recommend the IET Faraday Programme to other teachers	100%

### Teacher quotes

"Great challenge, please can we do it again next year!"

"Thank you for running a fantastic STEM session."

"Challenge leaders and ambassadors presented and supported well. Loved watching dynamics of teams and seeing them work together."

"Fantastic day, students really rose to the challenge!"





### Sellafield funded IET Faraday® Challenge Days

No. of events: 2, No. students: 46, No. of schools: 6

Date	Host organisation	Region
19 March 2025	Sellafield	Cumbria
20 March 2025	Sellafield	Cumbria

### Student feedback

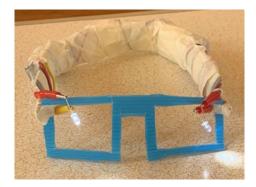
Feedback gathered from 46 students.

Age: 12: 5 (10.87%), 13: 23 (50%), 14: 18 (39.13%) Gender: Male: 26 (56.52%), Female: 20 (43.48%)

The following stats represent the % of students who were in agreement with these statements:

I enjoyed the Faraday Challenge	100%
I learnt new things	100%
I now understand more about what engineering is	98%
I have a better idea about what engineers do and the skills they need	96%
Before today I was considering studying or working in engineering	48%
Following this event I am now considering studying or working in engineering	<b>57</b> %
I'd like to do something like this again	98%
	I learnt new things I now understand more about what engineering is I have a better idea about what engineers do and the skills they need Before today I was considering studying or working in engineering Following this event I am now considering studying or working in engineering





## Student quotes

"I thought that today was very educational as well as fun!"

13-year-old female

"The event was fun, I learned how to use different materials and electronics, but I would of liked to learn a tiny bit more of the company."

13-year-old male

"I enjoyed the experience and loved making our product. I was a bit scared during the presentation part but overall I loved the time I have spent here."

13-year-old female

"I really enjoyed solving problems and making our prototype work."

13-year-old male

"The IET Faraday challenge was very fun and educational. The staff were very friendly and helpful."

14-year-old male

"It was an interesting experience and showed how much teamwork is valued in engineering jobs."

14-year-old female

"It was a great experience and memory that my parents will like hearing about!"

13-year-old male

### Teacher feedback

Feedback gathered from 8 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	The level of complexity was suitable for a National STEM challenge	
	aimed at students aged 12-13 years	

- The interest of the students was retained throughout the day

- The students learnt new concepts and expanded their knowledge base

- The registration process was straightforward with enough time to plan for the event

- I would be interested in taking part next year

- I would recommend the IET Faraday Programme to other teachers

100%

100%

100%

100%

100%

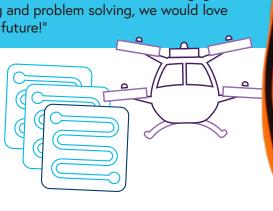
100%

# Teacher quotes

"Excellent day - well organised. Clearly presented."

"Would be great to offer this to older students too!"

"Brilliant day led by a super team! Students have been engaged all day in practical learning and problem solving, we would love to participate again in the future!"









# The Ironmongers Foundation funded IET Faraday® Challenge Days

No. of events: 3, No. students: 108, No. of schools: 6

Date	Host organisation	Region
28 November 2024	Sheffield Springs Academy	South Yorkshire
23 January 2025	King's Leadership Academy	Liverpool
12 February 2025	Kings Heath Secondary School	Birmingham

### Student feedback

Feedback gathered from 335 students.

Age: 12: 62 (60.78%), 13: 34 (33.33%), Not specified: 6 (5.88%)

Gender: Male: 58 (56.86%), Female: 39 (38.24%), Not specified: 5 (4.9%)

The following stats represent the % of students who were in agreement with these statements:

- I enjoyed the Faraday Challenge	100%
- I learnt new things	<b>97</b> %
<ul> <li>I now understand more about what engineering is</li> </ul>	97%
<ul> <li>I have a better idea about what engineers do and the skills they need</li> </ul>	97%
<ul> <li>Before today I was considering studying or working in engineering</li> </ul>	40%
- Following this event I am now considering studying or working in engineering	58%
<ul> <li>I'd like to do something like this again</li> </ul>	95%

# Student quotes

"This was a fun way to learn more about engineering."

12-year-old male

"You should offer to older years because it would be a great opportunity."

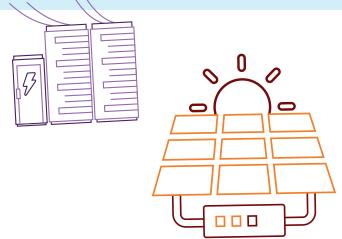
12-year-old female

"It was really fun, and we pushed ourselves to the hardest and as far as we can work and also teaches us that teamwork is important, and it was a good opportunity to discover another career."

13-year-old female

"It was a good opportunity to experience some engineering for once giving me an amazing learning opportunity."

12-year-old female

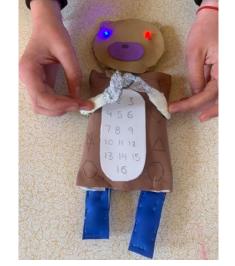


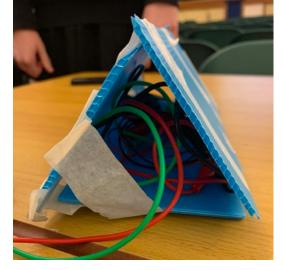


Feedback gathered from 8 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	The level of complexity was suitable for a National STEM challenge aimed at students aged 12-13 years	100%
-	The interest of the students was retained throughout the day	100%
_	The students learnt new concepts and expanded their knowledge base	100%
-	The registration process was straightforward with enough time to plan for the event	100%
_	I would be interested in taking part next year	100%
_	I would recommend the IET Faraday® Programme to other teachers	100%







# Teacher quotes

"The leader on the day was fantastic. He gave very clear instructions to the children, he helped them as much as he could and the whole day was very well organised."

"Brilliant day! Great to see the student's confidence grow throughout the project."

"Well thought out activities. All students challenged and involved."

"Brilliantly planned, fantastic direction, welcoming and friendly hosting, worthwhile experience."







# The Reece Foundation funded IET Faraday® Challenge Days

No. of events: 16, No. students: 480, No. of schools: 21

Date	Host organisation	Region
23 October 2024	Grace College	Gateshead
22 November 2024	Emmanuel College	Gateshead
31 January 2025	Gosforth Junior High Academy	Newcastle upon Tyne
10 February 2025	Gosforth Central Middle School	Newcastle upon Tyne
14 February 2025	Consett Academy	County Durham
17 February 2025	Kingsmeadow Community School	Gateshead
18 February 2025	Jesmond Park Academy	Newcastle upon Tyne
20 February 2025	Benfield School	Newcastle upon Tyne
03 March 2025	Wellfield Middle School	North Tyneside
21 March 2025	Durham Cathedral School	Durham
28 March 2025	Great Park Academy	Newcastle upon Tyne
07 April 2025	George Stephenson High School	Newcastle upon Tyne
02 May 2025	Newminster Middle School	Northumberland
09 May 2025	North Gosforth Academy	Newcastle upon Tyne
16 May 2025	Jarrow School	South Tyneside
23 May 2025	Cramlington Learning Village	Northumberland

### Student feedback

Feedback gathered from 480 students.

Age: 12: 215 (44.79%), 13: 250 (52.08%), Not specified: 15 (3.13%)

Gender: Male: 220 (45.83%), Female: 220 (45.83%), Not specified: 40 (8.33%)

The following stats represent the % of students who were in agreement with these statements:

<ul> <li>I enjoyed the Faraday Challenge</li> </ul>	96%
- I learnt new things	91%
<ul> <li>I now understand more about what engineering is</li> </ul>	90%
- I have a better idea about what engineers do and the skills they need	88%
<ul> <li>Before today I was considering studying or working in engineering</li> </ul>	32%
- Following this event I am now considering studying or working in engineering	48%
- I'd like to do something like this again	91%

# Student quote

"It was great! I loved that and definitely wouldn't mind doing something similar again. I am grateful I got the opportunity and chance to do this. I got challenged with this and it was awesome.

12-year-old female

"I have really enjoyed working with new people and I had a lot of funusing my newly learned engineering abilities."

12-year-old female

"This was the most fun task I've done in tech and engineering."

12-year-old female

"I really enjoyed it and the staff were very welcoming and nice. I enjoyed it a lot and would definitely do it again."

12-year-old female

# Teacher quotes

"Students were fully engaged and invested. Everyone fully enjoyed the challenge:)"

"A well organised exciting day led by two very professional educators, all pupils were inspired and developed their teamwork skills."

"As a member of staff, it was fabulous to see the students use numerous skills such as communication, budgeting, creating and building. They were enthusiastic throughout and I think they were proud of what they achieved! The challenge leaders were really friendly and knowledgeable engaging the kids."

"Amazing day, well structed and engaging for the students."

"Fantastic day, fully engaged cohort - good delivery, 10/10 day, great for all students!"

"The students loved it and had a fantastic time. The day built upon their existing skills and knowledge. It also allowed them to put science into practice and experience the job of an engineer."

"Students had a brilliant time with a holistic challenge that provided them the opportunity to develop a range of skills."



### Teacher feedback

Feedback gathered from 28 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	The level of complexity was suitable for a National STEM challenge aimed at students aged 12-13 years	100%
_	The interest of the students was retained throughout the day	100%
_	The students learnt new concepts and expanded their knowledge base	100%
-	The registration process was straightforward with enough time to plan for the event	100%
_	I would be interested in taking part next year	100%
_	I would recommend the IET Faraday Programme to other teachers	100%





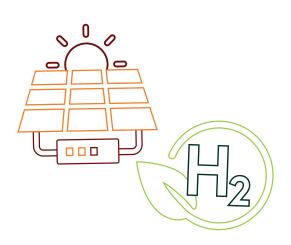




### UKRI funded IET Faraday® Challenge Days

No. of events: 10, No. students: 332, No. of schools: 28

Date	Host organisation	Region
24 October 2024	The Excelsior Academy	London
20 November 2024	Prenton High School	Wirral
16 December 2024	University Collegiate School	Greater Manchester
15 January 2025	Whalley Range High School	Greater Manchester
28 February 2025	Wiloughby School	Lincolnshire
12 March 2025	Thomas Telford UTC	West Midlands
20 March 2025	Winifred Holtby Academy	East Yorkshire
28 March 2025	Sir Herbert Leon Academy	Milton Keynes
09 May 2025	All Saints Church of England Academy	Plymouth
15 May 2025	UTC Plymouth	Plymouth







### Student feedback

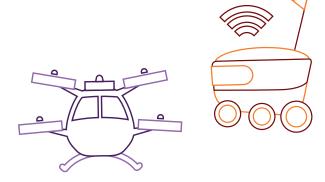
Feedback gathered from 321 students.

Age: 12: 152 (47.35%), 13: 140 (43.61%), Not specified: 29 (9.03%)

Gender: Male: 171 (53.27%), Female: 121 (37.69%), Not specified: 29 (9.03%)

The following stats represent the % of students who were in agreement with these statements:

_	I enjoyed the Faraday® Challenge	95%
_	I learnt new things	92%
_	I now understand more about what engineering is	90%
-	I have a better idea about what engineers do and the skills they need	<b>92</b> %
_	Before today I was considering studying or working in engineering	38%
_	Following this event I am now considering studying or working in engineering	<b>52</b> %
_	I'd like to do something like this again	91%



# Student quotes

"I enjoyed learning about how stressful engineering is."

12-year-old female

"It was very fun, the competition made it even more enjoyable."

13-year-old female

"It was very fun for a chance to do something different and learn more about a potential job opportunity in life."

### 13-year-old male

"I really enjoyed this project and would love to do it again. I loved getting to create something with my brilliant team showing teamwork."

13-year-old female

"I liked how we were introduced and how welcoming it was."

### 12-year-old male

"I would've liked more time and materials, but everything was brilliant, and I would be honoured to return and complete another challenge!"

### 13-year-old female

"Really fun and interactive, one of my favourite school things. However it would have been better if we had more time manufacturing."

12-year-old male

### Teacher feedback

Feedback gathered from 44 teachers. The following stats represent the % of teachers who were in agreement with these statements:

-	The level of complexity was suitable for a National STEM challenge aimed at students aged 12-13 years	93%
_	The interest of the students was retained throughout the day	<b>91</b> %
_	The students learnt new concepts and expanded their knowledge base	<b>95</b> %
-	The registration process was straightforward with enough time to plan for the event	98%
_	I would be interested in taking part next year	98%
_	I would recommend the IET Faraday Programme to other teachers	97%

# Teacher quotes

"Such a great experience for the students, allowing them to develop and use skills outside of the classroom."

"A great day of valuable experience for the pupils as their skills in teamwork, planning and presenting were also challenged."

"The students had an amazing experience, and the challenge was set up to be very thought provoking. It challenged the students while still being fun and creative."

"Fantastic day! Students loved it. Great to see teamwork and collaboration from all groups."

"Great day, very organised, clear messages regarding STEM and career development in the future. Students enjoyed and felt challenged."

"I appreciate this event a lot, thank you! It is a great experience for our students - unique in many ways!"



### Student quotes

"Very fun and enjoyable and held at a good place!"

"I thought it was very fun and educational, and I enjoyed the tour."

"I really enjoyed both Challenge Days and made lots of friends as well as improving my STEM work."

"I think our team of diverse people did well, maybe not well enough to win but we are proud."

"Very fun, I am super proud of myself."

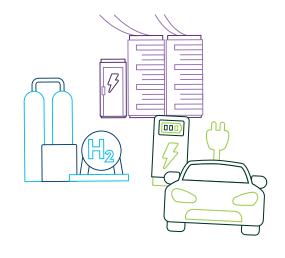
"Had a good time and learned a lot about batteries and engineering."

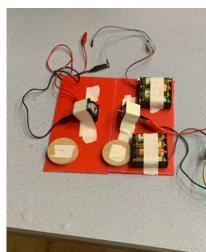
"Loved it and wish you could do it again in Y9."

"I liked the challenge and it was fun to experience."











# Teacher quotes

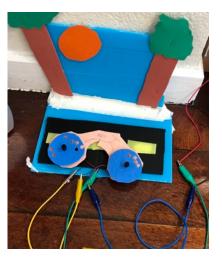
"Inspirational, exceptionally well planned and supported event. Such a valuable experience for all concerned. The leaders of the day were first rate."

"A fabulous day which we really enjoyed."

"A lovely day out with great team spirit and cooperation. Incredibly well organised and looked after thank you."

"Thank you for a great day, the kids have loved it."

"Fab opportunity!"









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