

# ASE Annual Impact Report 2023/24

Promoting Excellence  
in Science Education



[ase.org.uk](https://ase.org.uk)



# Welcome & Introduction

This past year has been transformative for ASE, marked by significant change, growth, and a sharper focus on our strategic direction. In a time of considerable flux in the education sector, ASE has demonstrated adaptability and leadership. We've launched new membership subscriptions, introduced tailored webinars and communications, streamlined our journals and publications activities, and strengthened our engagement with early career teachers, all while continuing to cultivate a vibrant and inclusive community that spans the breadth of the science education sector.

*ASE has demonstrated adaptability and leadership*



## A transformative year for the ASE



*We are deeply grateful to everyone who has supported the ASE this year*

We are proud to have worked together as Co-chairs of the Association over the last year, representing the organisation at national and international events and supporting the CEO and staff team during this period of transition.

We are deeply grateful to everyone who has supported the ASE this year. A special thank you to our outgoing Chair, Helen Harden and Conference Secretary, Chris Harrison, as well as our Trustees, committee members and volunteers, whose dedication and generosity make our work possible.



**Professor Leigh Hoath**



**Dr Alex Sinclair**

# About the ASE

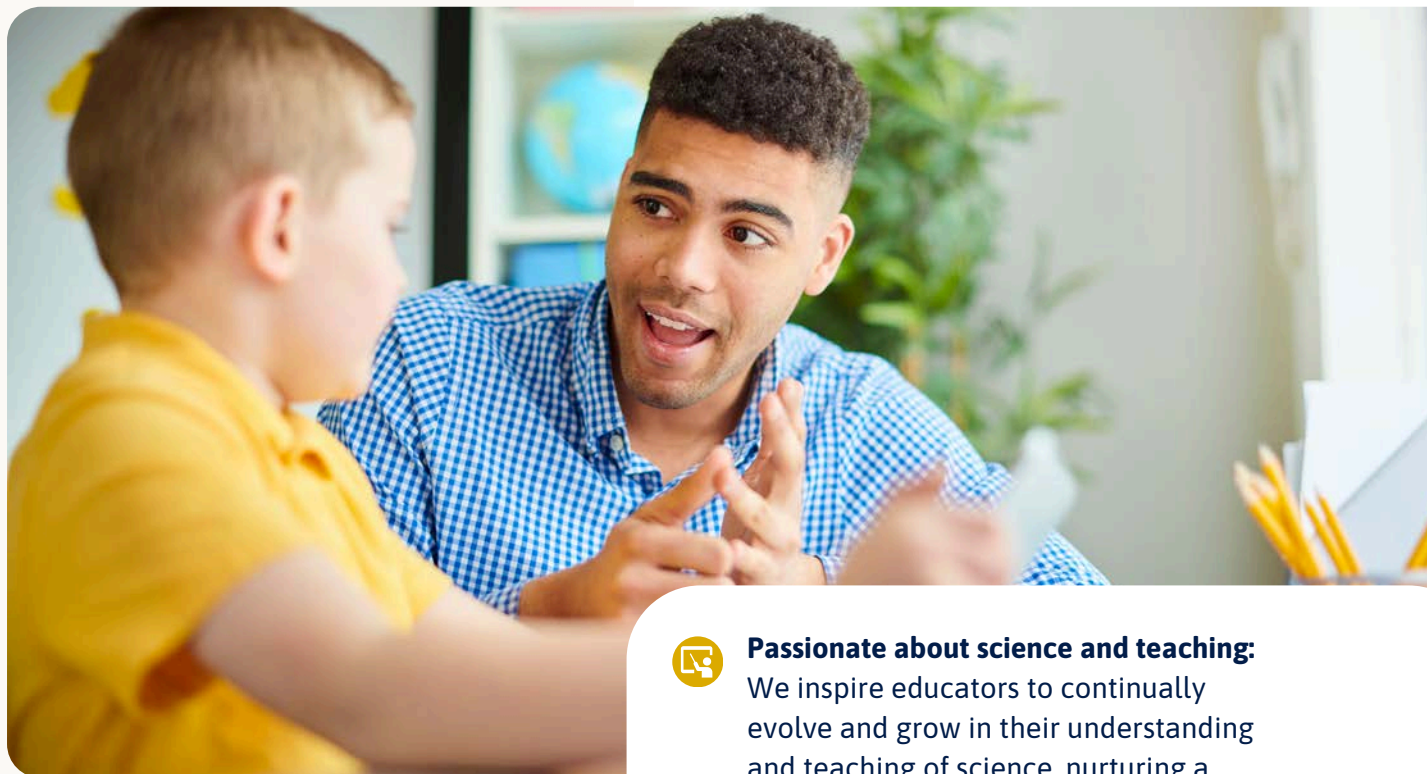
The Association for Science Education (ASE) is an active membership body that has been supporting all those involved in science education from pre-school to higher education for over 100 years; members include teachers, technicians, teacher educators, researchers and others involved in science education. We play a significant role in promoting excellence in teaching and learning of science in schools and colleges.

## Mission:

to promote excellence in science education

## Vision:

All learners are engaged in appropriate, valuable and interesting science education, supported by a professional science education workforce.



## Our Values



**Welcoming:** we celebrate diversity and **foster an inclusive environment** in which everyone in our science education community is respected, valued and heard



**Evidence-informed:** we value **good research**, data analysis, evaluation feedback and expert opinion and use it to shape our activities



### **Passionate about science and teaching:**

We inspire educators to continually evolve and grow in their understanding and teaching of science, nurturing a **culture of life-long learning** and innovation



**Bold:** We aim to push boundaries, **embrace innovation in science education** and set ourselves ambitious objectives in pursuit of our goals



**Environmentally sustainable:** we are dedicated to **reducing our environmental footprint** by minimising waste, conserving resources, and adopting sustainable practices

# Our Impact at a Glance

18,170 

**CPD hours.** Nearly 5000 teachers, technicians and students attended over **82 CPD** events on topics such as AI, SEND, inclusion and practical science.



6,183 

**Supported members.**

Membership grew by 20%. Teachers, technicians, lecturers, academics, researchers, school leaders, teacher developers, consultants, student teachers and early career teachers in membership.



64 

**Newsletter updates.** We sent out 64 newsletters customised and segmented based on teaching background (e.g. primary, secondary, technician) with information on relevant events, CPD and news.

33,000 

**Social media followers.** We saw increased activity, particularly on LinkedIn where followers increased by 15.8% over the year, and we launched a new channel on Instagram.

27 

**News stories.** Including coverage of topics such as ASE responses to the EEF guidance, Teacher Tapp State of CPD report, Royal Society's Science Education Tracker, and our response to the Advanced British Standard.

1 

**New brand launch.** Unchanged since 1973, the ASE launched a new logo, colour pallet and livery to bring the Association well into the 21st century.



605,500 

**Page views.** Our website was visited by over 149,000 unique users, who visited multiple pages and downloaded key resources, journals, guidance, news and events. Our membership page saw an increase of 139% in page views!

# Highlights from the Year

## Building a Thriving and Supportive Community



**Objective:** To create a welcoming community, which supports educators so that they enjoy their profession and stay in education

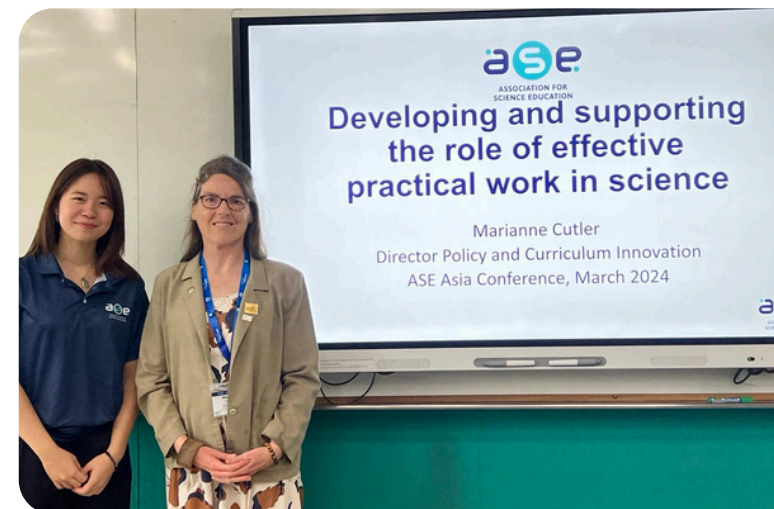
This year, we have strengthened our community by making membership more accessible and expanding opportunities for educators to connect and collaborate. A major overhaul of our membership structure reduced financial barriers, leading to a **21% increase** in individual members, with significant growth among early career teachers, technicians, and classroom educators.

Our dedicated local and regional groups hosted 28 events, bringing together over 780 members through TeachMeets, TechMeets, and networking events. While online events remain popular for their accessibility, we continue to foster in-person engagement, recognising its value in building lasting connections.

Across the devolved nations, members have benefited from regional conferences, workshops and networking events, all made possible by the dedication of our volunteers. Through these efforts, we are creating a welcoming and supportive environment that helps educators thrive in their profession.

“I just thought I would contact you to say how much I enjoyed the technician panel online discussion yesterday. It’s a shame that some technicians feel undervalued in their role so I hope they felt more positive afterwards as the guest speakers were very professional in their approach to the role of a technician.”

Sarah S. Technician (South West)





## ASE in Asia

The ASE Southeast Asia Conference, held on March 15–16, 2024, brought together science educators and technicians from across the region. Hosted by Bangkok Patana School in partnership with the Association for Science Education and Philip Harris / Findel International, and sponsored by Philip Harris, Charleston Scientific, and Vernier the conference offered a rich professional learning experience.

A total of **125** delegates from **37** international schools in seven countries attended the two-day event, which was highly praised by participants for its subject-specific focus and impact on science education in Southeast Asia.

## ASE in Northern Ireland

Biennial Conference 2024: Held on June 7th at W5 and supported by sponsorship from Almac, the conference attracted over **200 attendees**, including primary and post-primary teachers, science technicians and exhibitors. The event facilitated **22 exhibitor tables**, providing valuable networking and resource-sharing opportunities. A record number of technician delegates attended, underscoring the strong demand for targeted, practical training and peer interaction.

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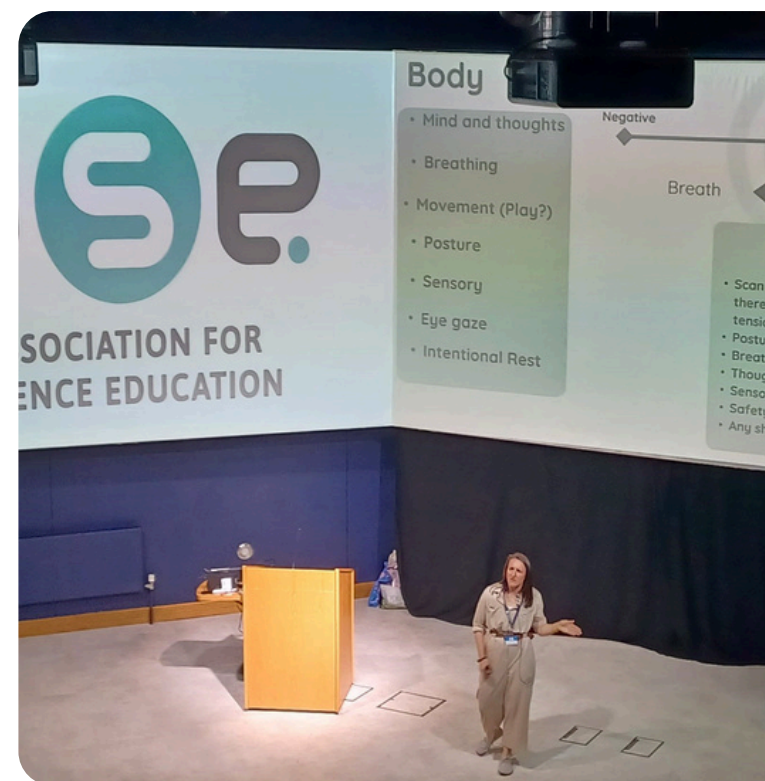
*“...opportunity to connect with others and network on initiatives.” ASE NI Delegate*

*“...really useful to take ideas away and know where to find resources.” ASE NI Delegate*

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Technician workshops on troubleshooting practical issues and lab safety were particularly valued. This conference reaffirmed the essential role of in-person professional gatherings in advancing science education, enabling educators to learn from each other, renew their motivation, and bring fresh ideas back to their classrooms.

*We are enormously grateful to all our members who sit on our regional committees and devolved nation committees and who commit a significant amount of time to our activities in local communities*



## Professional Development



**Strategic Objective:** To create a comprehensive programme of professional learning for science educators that promotes subject knowledge, grows confidence, improves outcomes and encourages educators to remain in education.

In 2023/24, we continued to advance the professional development of our members and the broader science education community through a wide range of events and publications. Guided by our values, ASE offers high-quality CPD designed to support members in promoting excellence in science education. Many of our expert speakers are drawn from our own skilled membership, contributing their insights to a CPD programme tailored to address key topics in science education—from AI to Alpacas, and from professional recognition to hands-on practical work.

### AI Webinars: Exploring the Role of AI in Education

Supported by Century Tech

This year, we hosted a series of webinars examining the impact of AI in education. Priya Lakhani OBE provided a foundational insight into AI, its capabilities, and the importance of critical evaluation and policy. Chris Goodall and the Bourne Education Trust explored practical AI applications in schools, showcasing how AI can enhance lesson planning, personalise learning and improve administrative efficiency. Finally, a panel discussion brought together educators to share real-world experiences of using AI to enrich teaching and student engagement. These sessions highlighted both the opportunities and challenges that AI presents in education.



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*“Great session - has definitely changed my perspective on AI”*

*“I have found the series of AI webinars extremely useful and will use AI more in my teaching practice as a result”*

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## ASE Annual Conference 2024: A Hub for Science Education

The ASE Annual Conference remains a cornerstone event for the science education community, bringing together educators, researchers, technicians, policymakers and industry experts for three days of professional development, networking and knowledge-sharing. Held at the University of Northampton's Waterside Campus, the 2024 conference featured over 250 sessions covering key themes such as Climate Change, Inclusion and Diversity, Practical Science, and Post-Covid Learning. Tailored programmes supported post-16 educators, early career teachers, technicians and international science education.

With 1,419 participants, 45 exhibitors, and overwhelmingly positive feedback—92% of attendees gained ideas to enhance their teaching—the event reaffirmed its impact on professional growth and subject knowledge. Thank you to our conference partners and sponsors, including AQA, Philip Harris, Gatsby, RSC, Vitta, OUP, the University of Northampton and PSTT, for their generous support.

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*"I was amazed at the range and variety of colleagues that I spoke to. It was truly inspiring to meet so many people who all want to provide the best science education for our children"* **Primary Teacher**

*"This was far and away the best organised and filled conference I have attended relating to my job as a secondary school science technician. The whole day of the event was brilliant, on topic, expertly hosted and thoroughly enjoyable. The trade fair was so well laid out and relevant. I received great information and support from everyone I interacted with"* **Science Technician (Nottingham)**

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## Bridging the Gap Between Research and Classroom Practice | ASE Best Bites

Recognising the challenges teachers face in accessing and applying educational research, we piloted ASE BEST Bites - three research-informed, topic-specific, bite-sized online CPD units designed for upper primary and lower secondary science teachers. Developed in partnership with the University of York Science Education Group and the Centre for Industry Education Collaboration, and funded by Wellcome Foundation legacy funding, this project aimed to translate research into practical classroom strategies.

The pilot addressed key barriers to research engagement by offering CPD that was accessible, self-directed, and directly relevant to teaching needs. Teachers, including those from schools requiring improvement or serving disadvantaged communities, found the units valuable and expressed a strong appetite for more.



“There was clear evidence of enthusiasm and support for research-informed resources and CPD tailored ... around the KS2/KS3 transition, which seemed to be an attractive aspect even to teachers who were not already familiar with the BEST project or who had not previously engaged with the ASE”

“It's made me think about science in terms of understanding and applying, and about uncovering those misconceptions and thinking about how to talk through them. I think there's something really good in being able to have the pedagogical content knowledge to explain why something is wrong and that being part of classroom practice. So, it's not just explaining why the right thing is right, but through each of the examples explaining why different things are wrong and then having that knowledge to be able to put that into initial explanations”

**Teacher interviewed for the evaluation report on ASE Best Bites**

## Maths for Teachers of A-level Biology

Now in its fourth phase of funding, this initiative aims to develop the capacities and confidence of biology teachers in their use of mathematics within the post 16 context, and to encourage more students to study Level 3 mathematics during the post-16 phase. A CPD course, followed by 47 participants, consisted of eight 90-minute online sessions from November '23 to March '24. The project is funded by the Department of Education in partnership with ASE and Mathematics in Education and Industry (MEI) as part of the Advanced Mathematics Support Programme (AMSP).



## Our Professional Registers

As a licensed body of the Science Council, ASE administers Professional Registers for Chartered Science Teachers, Registered Scientists and Registered Technicians. This year, our Registration Board focused on enhancing compliance with Science Council standards, transitioning to remote workflows, and promoting registration as part of professional development.

Our registrant numbers grew from 302 in April 2023 to 307 by October 2024. We are pleased to report that the Science Council renewed our licence, confirming full compliance and validating our commitment to best practices.



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*“I was thrilled to receive the notification that I was a CPD award winner. Being a chartered science teacher (CSciTeach) means so much to me. As a primary teacher with a GCSE in Human Biology, I have often felt a huge sense of imposter syndrome and that my peers are more 'science-y' than me. The charter mark had a huge effect on my self belief that my work is valued and has parity with colleagues in the sector. Achieving this award has made me feel this all over again and I am so proud to be recognised in this way”*

**Bryony Turford - CPD Award**

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## Projects that Promote Excellence and Innovation in Science Education

### Keeping Science Practical (funded by the Wolfson Foundation)

Over the past year, we have supported more than 50 schools in our *Keeping Science Practical* programme, which aims to boost teachers' confidence and skills in delivering practical science. CPD sessions received high ratings, with 98% of attendees rating them as "good" or better.

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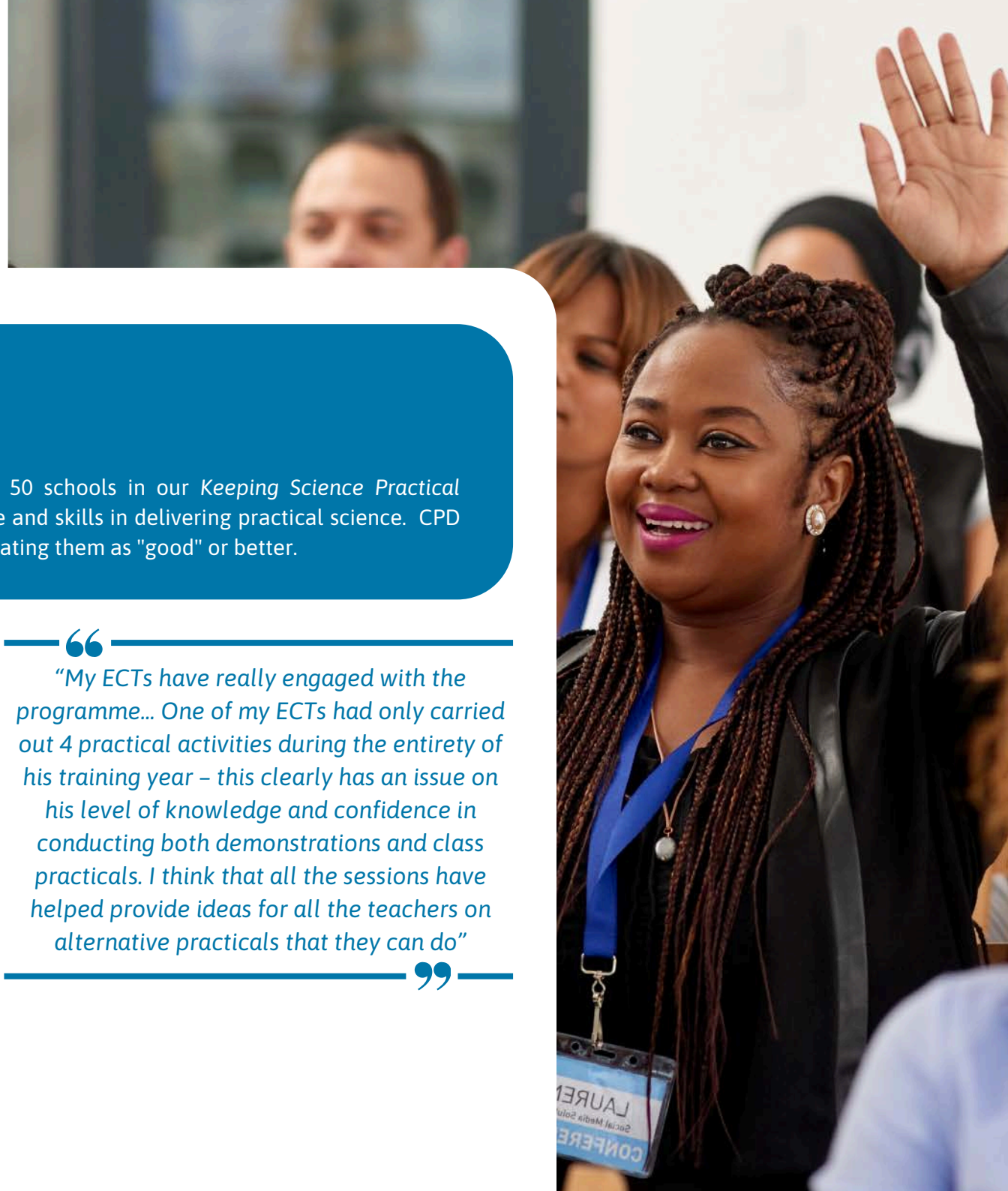
*“It has promoted professional discussions and prompted a deeper reflective practice. Lots of ideas for systems change for our technicians too. Sadly, as we have only 2 working labs, we are having difficulty in doing any practicals at the moment. But it definitely promoted a deeper thought of why you do a practical and can we do one in a carpeted cabin that is safe but has the same learning outcomes?”*

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*“My ECTs have really engaged with the programme... One of my ECTs had only carried out 4 practical activities during the entirety of his training year – this clearly has an issue on his level of knowledge and confidence in conducting both demonstrations and class practicals. I think that all the sessions have helped provide ideas for all the teachers on alternative practicals that they can do”*

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## Promoting Inclusion in Science Education

The Inclusion in Science programme, funded by the Department for Education, offers online CPD for science teachers and leaders in state-funded schools across England. Targeting Key Stages 3, 4 and 5, the programme focuses on promoting inclusivity in science education, particularly for students facing engagement and attainment challenges. In the 2023-24 academic year, 235 teachers participated in the programme. Independent evaluation by Impact Ed found significant positive impacts, with 96.9% of participants feeling confident about making students feel welcome, 60.2% reflecting on and changing departmental practices, and participants reporting a 48% increase in knowledge of inclusive practices. The evaluation recommends maintaining interactive elements and adding more resources on inclusive careers.

The ASE Inclusion in Science Conference 2024 featured a range of expert speakers, practical sessions, and discussions aimed at providing science educators with strategies and resources to enhance inclusivity in their classrooms. The event was well-received, with participants praising the high-quality content and practical takeaways that could be immediately implemented in their teaching practices.

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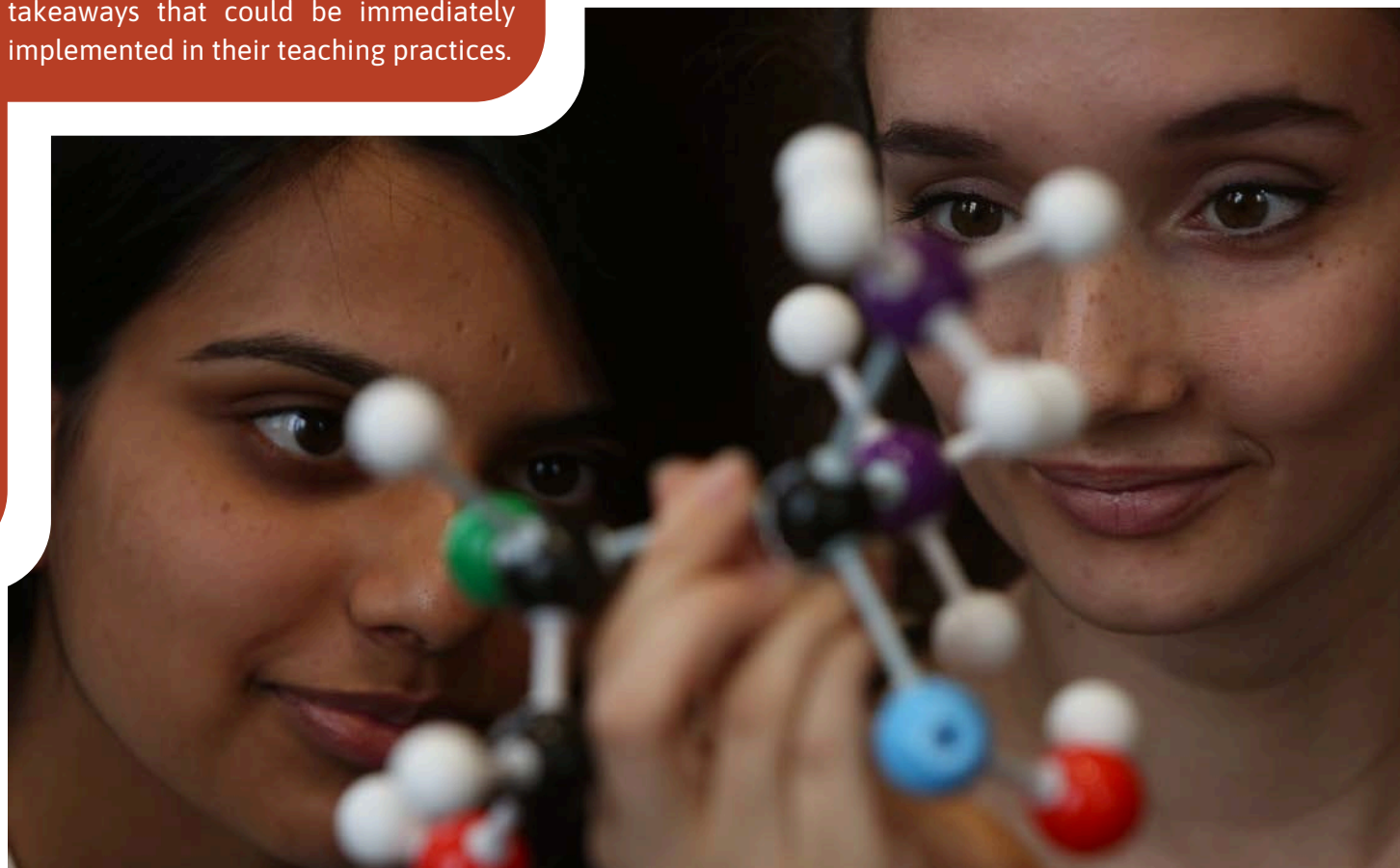
*“This was one of the best CPD opportunities I have had in a while, I am really happy I could attend the whole day to make the most of it”*

**Delegate, Online Inclusion Conference**

*“Really enjoyed today - lots of take-home tips - amazing resources and a wealth of knowledge and experience in the presenters”*

**Delegate Feedback**

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## Key Moments in History & Science



We were delighted to see the expansion of our Key Moments in History and Science programme, featuring film and resources about Mary Anning through a partnership with Museo de Ciencias-Universidad de Navarra in Spain. Starting in October 2023, the 14-month project worked with 20 primary schools, 40 teachers and their students, focusing on increasing knowledge of fossils, evolution and scientific enquiry. Early outcomes include improved student understanding, greater confidence in discussing scientific concepts, and more independent research.

### Award Winner

The film by film director James Morgan depicting Mary Anning's early life, produced as part of ASE's Mary Anning: a fossil hunter's story primary resource, won two further accolades this year! It was announced that 'Sea Dragon', a 15-minute narrative film about the young Mary Anning and her discoveries, has won Best Short Film and Best Fiction Short Film at the [International Braga Science Film Fest 2023](#) in Portugal.



Teachers have also reported increased class participation and a shift in teaching approaches. The project has also amplified its reach in the UK through articles and social media, resulting in a 3,016% increase in views on the project's webpage.

## Advocacy and Excellence in Science Education Policy

**Objective:** To Influence science education policy at national levels to achieve curriculum reform that meets young people's needs and drives a policy and practical framework that supports science educators, encourages them to stay in practice and helps to improve outcomes.

In 2023/24, we continued to inform national and regional policy on a range of topics including guidance on primary science education, 11-16 education, post-16 education, teacher professional development and new science GCSE qualifications in Wales. ASE works in partnership with the Institute of Physics (IOP), the Royal Society of Biology (RSB), Royal Society of Chemistry (RSC), and the Royal Society, through the influential Science Education Policy Alliance (SEPA), as part of the Learned Societies Group in Scotland, and with a range of partner organisations including Primary Science Quality Mark, Primary Science Teaching Trust (PSTT) and the University of Manchester.

## ASE's manifesto to help transform science education for a brighter future:

In 2023/24 we launched our Election Manifesto; four pledges informed by detailed discussions including with members and stakeholders at the Talking Science Debate held at the ASE's Annual Conference in January 2024.



1

### **National review of the vision for science education**

We call on the next government to undertake a comprehensive national review of science education led by an independent body, inclusive of diverse perspectives from across the education sector.

2

### **Reform of the science education curriculum and assessment**

Utilising the insights from the national review, we urge the next government to seek substantial reforms to the science education curriculum and assessment.

3

### **Increased funding to support training and ongoing professional development**

The next government must take urgent steps to elevate the status of science education professionals, placing their wellbeing and ongoing development at the forefront of the education agenda.

4

### **Support for equity and inclusion initiatives that help to ensure that all young people have equal access to excellent science education**

Addressing inequity and inclusion in schools is a critical aspect of ensuring a fair and just education system. All students should have equal access to quality education regardless of their background or circumstances.

*We will continue to work towards these goals throughout 2024/25 as the Government undertakes a curriculum review.*



# Looking ahead

ASE remains dedicated to supporting the science education workforce through robust professional development, strong advocacy and an active community network. We are passionate about ensuring accessible, high-quality science education for all, empowering teachers, technicians and trainers to deliver exceptional science learning experiences.



## Our priorities in 2024/25 include:

- Enhancing our professional support community, expanding our advocacy and curriculum development efforts, and pursuing greater financial stability. Key initiatives will include:
- Delivery of a range of CPD opportunities, including a partnership with Physics Partners to support non-subject specialists and a series of webinars to support our primary community.
- Strengthening our advocacy and feeding into key government consultations on the curriculum in England, Scotland and Wales. We aim to influence policy decisions and ensure that the needs and perspectives of teachers are considered in shaping the future of education.
- In alignment with our drive to improve our environmental and financial sustainability, the staff team will transition to a fully remote model of work from September 2024.

We will continue to actively pursue new funding sources, partnerships within the STEM sector and from trusts and foundations to support our mission.

*Thank you to everyone throughout this period of transition and change. To our staff team, trustees, chair trio, committee members, volunteers, funders and partners. We look forward to collaborating with you all in 2024/25 as we continue to address the challenges and opportunities within the science education sector.*

**Lynn Ladbroke, CEO**



## Connect with us:



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