



The Association for Science Education - A vision for the next three years (2021-2024)

Introduction



“The Association for Science Education’s new three-year strategy comes at a critical moment for science education, both in the United Kingdom and internationally. The pandemic has brought into sharp focus the importance of science education, both in supporting a strong future pipeline of scientists, technicians, medics, and engineers and in helping to equip all young people to navigate the global challenges they will face through their lives.

However, the impact of COVID-19 on science education itself has also been profound and promises to continue well beyond the pandemic, particularly around issues such as examinations, and access to practical science. The Association for Science Education is committed to supporting everyone involved with science education in the UK and internationally, including

working with policy makers and other stakeholders to help shape the science education landscape.

Our new three-year strategy sets out the key areas we will be focusing on from 2021-2024 and how we will address these. We could not deliver these activities without the ongoing support and dedication of our trustees, committees, volunteers and wider membership. Our thanks go to all these individuals as well as to the many other organisations with whom we work closely.”

**Hannah Russell,
Chief Executive Officer**

“ The pandemic and the climate change crisis have highlighted, as never before, the importance of the dual role of science education: to provide a foundation of scientific literacy for all citizens and to stimulate and nurture the professional scientists and technicians of the future. The ASE, with its broad base among teachers and technicians in primary and secondary schools, is ideally placed to take forward the mission to promote excellence in science education at this critical time.

- Professor Sir John Holman, President of the Association

“ We are continuing to involve teachers, technicians and consultants from across the UK and internationally in all the work we do, so it is grounded in the experiences of our community, whether it’s through our volunteers, committees both nationally and regionally, at our events, our social media interactions or temperature checks on the sector. This new strategic plan gives us a focus to continue to move forward the ASE and ensure that it remains fit for purpose for the education community.

- Simon Quinnell, Chair of the Association

Our mission and vision

ASE's Royal Charter of Incorporation, granted in 2004, states:

“The objects and purposes for which The Association is hereby constituted are the promotion of education by the following means:

- a) by improving the teaching of science and
- b) by providing an authoritative medium through which opinions of teachers of science may be expressed on educational matters and
- c) by affording means of communication among all persons and bodies of persons concerned with the teaching of science in particular and with education in general.”

Our Mission: To promote excellence in science education.

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

Challenges facing our community



Global crises such as the Covid-19 pandemic and climate change underline the need for a strong future pipeline of scientists and engineers, as well as scientific literacy for all. While excellence in science education is clearly crucial in addressing these issues, the challenges facing our community have never been more acute. In order to achieve our mission, we will focus on the following challenges over the next three years, embedding them across our activities:

- **Recruitment & retention** of specialist science teachers and technicians;
- **Access to subject- and context-specific continuing professional development (CPD) for all teachers of science and technicians;**
- **The need for dynamic and fit-for-purpose science curricula, assessment and qualification frameworks** that prepare young people for their future lives, both within and outside STEM careers;
- **Student access to frequent, varied and purposeful practical science**, led by expert teachers, with strong technical support and suitable facilities and equipment;
- Linked to many of these challenges, we believe that there is a particular need to **raise the profile of primary science**, with an engaging, creative and appropriate curriculum and greater support for primary schools to develop science leadership, teaching and learning;
- **Environmental sustainability**, including climate change, as a key challenge for our time, reflecting young people's needs as global citizens and recognising the role that science education can play in understanding the issues and developing solutions.

Our four strategic themes and objectives



**Organisational
Sustainability**



Community



Advocacy



Professionalism

Organisational Sustainability



Organisational sustainability - Ambitions

“ Membership organisations exist in a challenging environment, in terms of both the competition for attention and proliferation of alternative sources of information. In order to continue to best serve our members - and the science education community at large - we must strive not just to survive but to grow. Over the next three years we will continue to refine our systems and processes, pursue a culture of operational excellence and ensure that we are responsive to technological innovation.

- Ensure operational excellence across the Association through effective use of governance, information technology (IT), marketing & communications, finance and human resources.
- Continue to build our reputation as a welcoming and inclusive organisation, both as a workplace and for our community.
- Continue to review our IT to make best use of systems and infrastructure.
- Continue to develop and embed a culture of evidence-based decision-making across our activities.
- Continue to review the Association's portfolio of activities to ensure that we are maximising return on investment and delivery of our mission.
- Consider new commercial opportunities that align with the ASE's mission, vision and expertise.

Organisational sustainability - Deliverables

Strong governance:

- Review our national committees to clarify the roles and responsibilities of each, maximise impact and improve links, both with other committees and with ASE Head Office.
- Help to ensure a strong future pipeline of committee members through better communication of what it means to be on a committee and increased recognition for committee members.
- Increase regional provision to ensure that we are providing support across our community. Continue to strengthen links between Head Office, Field Officers and region committees.
- Increase representation from early career members. Introduce a new online Early Career group, with representatives from across different target audiences. Aim to include an early career representative on at least 80% of national committees and 70% of regional committees by 2024.
- Develop a network of international hub leaders, to help represent and co-ordinate activity in their region.

Responding to wider challenges:

- Continue to respond to the implications of the COVID-19 crisis, exploring new ways to deliver our activities, support our community and ensure financial sustainability.
- Review the Association's equality, diversity and inclusion (EDI) practices to incorporate EDI across our activities and processes.
- Strive to increase diversity on committees and at conferences and events to ensure that we are representing our community.
- Develop an ASE Environmental Sustainability strategy across the activities of the Association and Millgate House Education, based upon the outcome of an environmental sustainability audit.



Organisational sustainability - Deliverables

Operational excellence:

- Develop consistent branding and engaging messaging across our activities, ensuring that we have a clear value proposition, increasing our profile and visibility and exploring new ways to engage teachers.
- Building on the success of our online activities to support our community through the COVID-19 crisis, further develop our digital activity, including social media, blogs, webinars and podcasts, to ensure that we are maximising our reach.
- Continue to review and refine the Association's systems, infrastructure, processes and operating procedures.
- Review our membership processes to ensure that we are collecting the data we need to inform decision-making, for example around membership offerings, including regularly surveying, analysing and reviewing opinions of joining, exiting and returning members.
- Keep under review our business model for publishing books through the Association and Millgate House Education, to ensure that we continue to provide a valuable benefit for members, while also supporting organisational sustainability.
- Build organisational capacity to support the breadth of our activities.
- Continue to manage the Association's finances prudently, to grow our reserves and ensure sufficient buffer against adverse risks.
- Evaluate all project opportunities against their financial implications, educational benefits and likely impact on the reputation of the Association.





Community

Community - Ambitions



The strength of the ASE lies in its community - thousands of science educators collaborating and supporting each other. The breadth of knowledge and experience held by the ASE membership is unparalleled, and we must do all we can to make sure that it can be shared with those who need it most...

- Ensure our membership offerings are fit for purpose, with a membership structure that supports and attracts those involved with science education across all sectors and career stages, in the UK and internationally.
- Expand our support for early career teachers in primary and secondary education, building engagement with these audiences to understand their needs.
- Increase our engagement with heads of science departments and science co-ordinators, highlighting our value for these audiences, particularly for those new, or aspiring, to these roles
- Explore opportunities to improve primary-secondary collaboration.
- Continue to increase our international links and networks, supporting members to network and share best practice on a global scale as well as increasing access to and awareness of our events, activities, publications and resources.
- Increase the profile of our teacher educator and consultant (Futures) membership category, ensuring a clear offering for this target audience.
- Introduce a retired membership category, recognising the significant expertise and support that this group brings to our community.
- Continue to expand the Association's offering for our community of technicians.
- Work with further education stakeholders to better understand this audience and ensure that we are meeting their needs.
- Increase our engagement with school and college Senior Leadership Teams, recognising the significant influence that these groups have on teacher and technician recruitment and retention.
- Explore new ways to engage with Multi Academy Trusts (MATs) and ensure that we are responding to different models of initial teacher education to support those coming to teaching through both school-based and university routes.

Community - Deliverables

- Review and relaunch our membership structure and benefits, responding to data-driven trends and benchmarking against membership organisations across and beyond our sector.
- Increase membership recruitment and retention across all categories.
- Explore opportunities to introduce a mentoring scheme, linking early career members to CSciTeach members in their region.
- Increase our links with international science education associations, exploring opportunities for reciprocal involvement, for example in journals and events.
- Use working groups, surveys and pilots to identify how the Association can best support those working in further education, school-centred initial teacher education and Multi Academy Trusts and build links with relevant partners already working closely with these groups, developing new lines of communication to meet our shared challenges.
- Introduce technician-specific strands at all relevant conferences.
- Introduce new activities to engage Senior Leadership Teams, including dedicated sessions at ASE conferences.





Professionalism

Professionalism – Ambitions



High quality, relevant and accessible professional development remains a core part of our activity, meeting the needs of our community, across all sectors and career stages, in the UK and internationally. Over the next three years we will continue to support all science educators to develop their skills and expertise, providing learning and networking opportunities and recognising professional achievement.

- Offer a professional learning journey for everyone working to support science education in the UK and internationally, through conferences and events, interactions with our journals, books and resources and participation in Association projects and initiatives.
- Continue to expand our continuing professional development activities to allow us to reach and support our members across the UK and internationally, including both face-to-face events and online CPD.
- Increase the visibility and prestige of our publications, ensuring that our publishing and booksales operations remain relevant and beneficial to our membership and to the Association.
- Continue to offer professional registration and increase the profile and recognition of professionally registered members, providing opportunities to contribute through committees and groups, projects, events, mentoring opportunities and publications.
- Continue to develop and expand our accreditation activities, for example through our Green Tick evaluation scheme.
- Continue to bid for innovative projects and initiatives that support the key challenges facing our community.

Professionalism – Deliverables

Conferences and events:

- Continue to develop our popular national, regional and international conferences programme, increasing our capacity to deliver events partially or fully online to respond to delegate needs and broaden our reach.
- Building on the success of our COVID-19 webinar series, increase the use of webinars and video conferencing as part of our expanding CPD programme.
- Continue to review and refine the Annual Conference, responding to changes in delegate needs as a result of COVID-19 and ensure that we are maximising the potential of this major event for the Association, delegates and other stakeholders.
- Continue to expand our regional provision, including high quality regional conferences and events, as well as workshops and CPD sessions at regional meetings.
- Following the successful trial in the Northern Region, continue to develop and organise further ResearchMeet events with teachers to help develop research literacy amongst teachers and across schools.

Professional recognition:

- Promote our new register for teacher educator and consultant (ASE Futures) members.
- Explore opportunities for greater recognition of those working in technical roles.
- Continue to raise the profile of professionally registered members through Education in Science and other channels of communication and increase opportunities for professionally registered members to get involved with our activities, for example as reviewers or consultants on Association projects and initiatives.
- Increase the number of nominations for our international awards and consider other opportunities to support our members in developing economies with accessing continuing professional development.



Journals:

- Increase the number and breadth of articles published across our journals portfolio and explore new ways to encourage and support authors looking to publish for the first time.
- Explore ways in which to use current and recent journal content to recruit and retain members, making use of a wealth of informative and relevant content currently sitting on our website and in our archives.
- Recognising the importance of environmental sustainability and changing needs of our community, develop an optional online-only offering for our journals supported by an accompanying communications strategy (e.g. Table of Contents alerts) that maintains the visibility of our publications to users.
- Explore the feasibility of making a full international e-membership available to those who wish to receive more than *ASE International*.
- Review our publishing processes, workflows and technology to ensure that we are maximising our value both to members and the Association.
- Continue to explore opportunities to collaborate and partner with other like-minded organisations to increase our Open Access journals offering.

Book publishing and booksales:

- Continue to innovate with formats and outputs across our booksales portfolio, increasing our use of interactive digital books.
- Explore opportunities to expand the international reach of our *Concept Cartoons* titles.
- Increase the number of books published each year while continuing to ensure a high quality offering.
- Explore new opportunities to link and promote ASE and Millgate books and resources through our events, projects and journals.
- Continue to grow the number of entries to the ASE Book of the Year Award across primary, secondary and further education audiences.
- Update and republish the primary and secondary *Science Leaders' Survival Guides* to ensure that these remain relevant to our members.



Professionalism - Deliverables

Projects and initiatives:

- Increase capacity for delivery of projects and initiatives, focusing particularly on the key challenges facing our community, and continuing to draw on the expertise of our professionally registered members.
- Ensure that projects and initiatives are relevant to and support the Association Objects and formulate bids such that they are financially contributory to Association costs.
- Continue to develop our reputation as leaders in practical science.
- Place the Association at the forefront of embedding environmental sustainability into science education.
- Continue to develop and expand our accreditation activities through our Green Tick evaluation programme, ensuring a clear and robust process that supports both science educators and publishers/CPD providers.
- Build on our reputation as a gateway to high quality science teaching resources through our schoolsience.co.uk platform and develop the Association website resources area into the 'go to' place for teachers to access resources to support their professional practice and development.





Advocacy



Advocacy - Ambitions



In order to achieve our Mission, we need to make sure that the voice of science teachers and technicians continues to be heard. Over the next three years we will seek to expand this vital area of our work, continuing to listen to and advocate for teachers and technicians and campaign for the science education issues most relevant to our community...

- Raise the profile of science teaching and learning and champion the needs of those working across science education through our marketing, communications, publishing and policy activities, projects and events.
- Work with policy makers and other key stakeholders as a critical friend, informing policy making to help shape science education policy and practice.
- Emphasise the value of our expertise and independence.
- Give a voice to our community to help shape the future of science education, engaging our members with key policy issues and channelling their views into our policy activities.
- Continue to highlight the key challenges facing our community, drawing on research, and commissioning research where appropriate, to inform our policy activities.
- Continue to proactively scan the horizon for changes and initiatives affecting our community.

Communication and partnerships

- Respond to news stories and feed in to relevant consultations, drawing on the views of our members and maximising our influence by working with strategic partners, such as the Education Policy Alliance¹ and Learned Societies Group on Scottish STEM Education (LSG), on communications and broader policy-related activities, including commissioning research to ensure that our messaging is evidence-based.
- Develop new ways to engage and capture the views of our members on policy issues, including clear processes for gathering views to feed into our advocacy work.
- Continue to build relationships with contacts at the Department for Education, Ofqual, Awarding Bodies, Ofsted, Education Scotland, Education Wales and the Department of Education in Northern Ireland, as well as other key policy stakeholders, establishing clear advocacy messages relating to our key challenges.
- Draw on the expertise of our Futures community to develop guidelines on recommended content for primary and secondary science initial teacher training.
- Draw on the expertise of our Research group to promote evidence-based practice, develop partnerships with Research schools, support with horizon-scanning and ensure that our policy activities are research-informed.
- Draw on the expertise of our Education Group to keep the ASE's Best Practice Guidance current, relevant and useful to stakeholders and our community.
- Advocate minimum training requirements for non-science teachers teaching science.

¹ The Education Policy Alliance is comprised of the ASE, Institute of Physics, Royal Society, Royal Society of Biology and Royal Society of Chemistry.



Collaboration



Working in partnership will be vital in delivering our strategy. We value our work with partners and will continue to engage with key stakeholders in the UK and internationally to support our community and achieve our mission. This will include:

- Visibly supporting organisations and initiatives that align with our mission and vision.
- Identifying influencers with whom we can work in partnership to address our key challenges.
- Continuing to expand our work with key stakeholder organisations to amplify our advocacy work, e.g. with our Education Policy Alliance and LSG partners, Chartered College of Teaching, The Council for Subject Associations, NSCL, NAHT and others to respond to national policy initiatives and changes.
- Looking for opportunities to work in partnership on our conferences and events programme.
- Continuing to explore opportunities to work in partnership on new projects and activities that support our mission and enable us to increase capacity while remaining sustainable as an organisation.
- Continuing to explore new opportunities for industry to engage with our events and wider activities.
- Developing a relationship tracker to ensure that our activities are joined up across the organisation.
- Where relevant, offering discounts and incentives to members looking to engage with our partners, for example discounts off external products and services.

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