
Annual Report of the Trustee Body (Council) 2015-16

The Association for Science Education

Contents

Contents	1
Chair’s Introduction	2
Highlights of the year	4
Achievements and performance	5
Plans for 2015/16	10
Honorary Treasurer’s Annual Report 2015/16.....	11
Statement of financial activities for the year ended 31 July 2016.....	12
Balance sheet as at 31 July 2016	13
Notes to the summary financial statements	14

Chair's Introduction

2015/2016 has been a good year for ASE. I would like to start this introduction with grateful thanks to all those volunteers, HQ staff, trustees, and of course, to membership for all that they do to support and make ASE such a vibrant subject association.

My year as Chair has been exciting, interesting, instructional and busy. There have been many highlights.

The Education Group, (previously Assembly), has refocussed its role on education Issues, setting key priorities for the coming year and most importantly listening and being responsive to the issues our members face. Various committees and Special Interest groups have been hard at work to produce guidance documents to support teaching and learning in the classroom.

The primary and secondary groups produced a positional statement (cross phase) on assessment to give colleagues clear guidance on what is good assessment practice. They are currently working on a document to support working scientifically for progression from Early Years to Key Stage 4. The primary group also produced guidance about the teaching of relationship and sex education - a request from membership as this is a new area in the primary curriculum. Members have found both documents very helpful in supporting their work.

We have responded to consultations, both with other science institutions and as an individual association, for example to the EBACC consultation. We have received positive feedback and been consulted about other areas of curriculum as a result.

The Technicians Group have been hard at work and ran a superb technician conference in York. I

was lucky enough to attend and give an introductory speech. ASE is working tirelessly to ensure that the role of technicians is valued and their profile raised in this current climate of cuts. The May 2016 EIS magazine highlighted all that they do to contribute to successful science. It also highlighted the work of the Technician Committee. I would urge all technicians to join ASE to have a voice in responding to Government initiatives.

The National Advisers and Inspectors Group (NAIGS) and the Association of Tutors in Science Education (ATSE) finally merged at their July 2016 conference to become *ASE Futures group: Leading Professional Development in Science Education*. All those involved in supporting science education and training are encouraged to join this group.

The online journal Science Teacher Education (STE) goes from strength to strength informed by the Research Special interest group to ensure that our membership has a good research basis on which to move teaching forward.

The annual conference in Birmingham was very successful and attracted even more attendees than usual. The sessions were well run and the exhibitors' section was very well received, not only by members but also the Chair of Ofqual and visiting headteachers.

This conference, as well as the numerous ASE regional events, teachmeets, techmeets, etcetera

provide excellent opportunities for members to receive up-to-date practical and vibrant professional development.

I was able to attend the NSTA (our US equivalent association) national conference in Nashville, Tennessee. I was very interested to see that the sessions we offer at our annual conference are equal and in many cases surpass the Nashville sessions. It was also interesting to see that we are both facing similar issues in education.

The Language of Mathematics in Science project came to fruition - the response to its release in May 2016 has been phenomenal and awarding bodies are recommending its use. I would like to thank the project team and teachers who put this together for membership. One of ASE's key strengths is its ability to call on a range of expertise from amongst its members to produce practical documents that can actually be used in practice by science teachers.

It has been an amazing year being Chair of an association like ASE and I would like to thank Chris Harrison, as immediate Past Chair for all her support and tireless work for ASE. I am now handing over the Chair to Chris Colclough and wish her an equally successful year.

I would also like to thank Shaun Reason, our CEO, for his dedication, experience, enthusiasm and expertise. He has been a superb support and a wonderful colleague to work with. The ASE is very lucky to have him as CEO to guide ASE forward. The ASE is now in excellent hands at all levels and I look forward to an even more stunning future.

Corinne Stephenson,
Chair of the Association 2015-2016



Corinne Stephenson, Chair of the Association 2015/16, delivering the NSTA/ASE Honors Exchange Lecture on Saturday, April 2nd 2015 in the Music City Convention Centre, Nashville, USA.

Highlights of the year

The following were major highlights of 2015/16.

- The Trustee Body is delighted to report that ASE made a surplus for the second consecutive year and has strengthened its positive balance sheet.
- The ASE Annual Conference at the University of Birmingham in January 2016 was successful and well received with a 23% increase on the previous year's delegate numbers, and the International Day attracting visitors from 30 countries.
- The ASE Scottish Conference, held in Aberdeen at the Robert Gordon College in March 2016, was also highly successful with 148 registrations and delegates remarking on the excellent range and quality of sessions.
- The 2015/16 year saw an increased programme of regional conferences, smaller events and TeachMeets with volunteer members helping to provide a range of activities supported by the team of ASE Field Officers.
- ASE has continued to have a significant input into science education policy and is a key 'influencer' in major consultations.
- ASE's new guidance publication 'The Language of Mathematics in Science: A Guide for Teachers of 11-16 Science' received wide acclaim when released in May 2016. The guidance, funded by the Nuffield Foundation, was published to support teachers preparing for the increased emphasis on mathematical skills in science for GCSE examinations from September 2018.
- The Chair of the Association, Corinne Stevenson, delivered the ASE Exchange Lecture at the NSTA Conference in Nashville in March 2016.
- The Chief Executive, Shaun Reason, was a keynote speaker at several major events and conferences, including giving the opening keynote presentation at the Global Conversations Conference in Nashville.
- Our presidency overlaps our accounting year. ASE President 2015, Sir David Bell, Vice-Chancellor of the University of Reading, passed the presidency in January 2016 to Professor Danielle George at the University of Manchester. In June 2016, she was awarded an MBE for her services to engineering through public engagement in the Queen's Birthday Honours.

Achievements and performance

For the year 2015/16 ASE continued to operate through its simple strategy of 'Survival – Consolidation – Growth' and its 5-year Strategic Plan 2012-2017, whilst preparations are being made to create a new Plan for 2017-2020.

Under this Strategic Plan 2012-2017 there are three Key Strategic Objectives, which outline the way in which the Association works towards its vision of:

"Promoting excellence in the teaching and learning of science"

These are:

- 1 To provide the high quality support and resources needed by the membership and the profession in general to allow them to deliver excellence in the teaching and learning of science
- 2 To provide clear outlets for the views of the Association and to raise the positive profile of the science teaching profession
- 3 To sustain the organisation so that it can continue to take forward its objectives

The Association is structured as a charity, registered with the Charity Commission in England and with the Office of the Scottish Charity Regulator in Scotland and incorporated by Royal Charter. As such, ASE is obliged in law to confer public benefit – it does this through its aims, which are wholly concerned with education. The aims express a commitment to improving science education for all young people, primarily but not exclusively across the

UK. This is achieved by supporting teachers and others concerned in the provision of science education in schools and colleges and by influencing components of society, including government, such that science education can flourish.

With the appointment of a new Chief Executive in May 2014, Council agreed that the Strategic Plan 2012-2017 would remain in place in the interim and that, following a critical review of the Association, a revised future strategy would start to be developed during the 2015/16 financial year.

The Chief Executive has visited regions, attended committee meetings and organised an external 'Strategic Review of ASE' meeting in May 2016 with key partners, chaired by Professor Sir John Holman. Key partners congratulated ASE on what has been achieved in the past 2 years. Finances are now stabilised, numbers at the recent Annual Conference were up on the previous year with greater teacher presence, membership numbers have stabilised and there is optimism and increased engagement of current members, particularly at committee level. The new Strategic Plan 2017-2020 will be presented to members at the January 2017 Annual General Meeting (AGM).

Key Strategic Objective 1 – ASE resources and support

Membership

Recruitment, retention and support of members remain key priorities. ASE regions, with exceptional volunteer member support alongside help from field officers, organised a variety of activities at which ASE membership was promoted. The Field Officers and ASE members with direct links to Initial Teacher Training continue to promote the benefits of membership to student teachers.

There are challenges that ASE faces given the current recruitment and retention issues being experienced nationally with evidence that science teachers have a heightened risk of leaving the teaching profession. Similarly, financial pressures in education are leading to reductions in the working hours and number of science technicians. ASE has welcomed the formation of an independent College of Teaching; although there is some work to do to ascertain how subject associations, like ASE, work in partnership with the College.

On a positive note, the number of members recruited to Registered Science Technician, Registered Scientist and Chartered Science Teacher is healthy compared with other organisations offering the designations under the Science Council remit.

Professional development

ASE's largest professional development event, the four-day Annual Conference, was held at the University of Birmingham in January 2016 and was very well received.

- A total of 2,892 delegates attended over the four days, which was a 23% increase on the University of Reading numbers of 2,350 in 2015.
- Delegate income increasing by 12.3% compared with the previous year, although exhibition income was down on 2015 due to

a reduction in sponsorship income from the major sponsors.

- Visitors were able to access over 440 sessions / workshops and more than 120 exhibitors.
- The International Day attracted 319 international visitors from 30 countries.

There was a well-received presidential address from Professor Danielle George and an excellent range of high profile speakers including Sir John Holman, Lord Baker, Professor Steve Jones, Dr Paul Roche, and Professor Iain Stewart.

Honorary membership was awarded to Professor Danielle George, John Lawrence, Colin DuQueno and Valerie Wood Robinson.

2015/16 saw an increased programme of regional conferences, smaller events and TeachMeets (a means of providing peer-led CPD at low cost) across the four nations emphasising the importance that the ASE places on the diverging education systems now appearing across our four nations. ASE volunteer members continue to provide a great range of activities supported by the team of Field Officers. However, teachers are finding it harder to be released to attend events during the school day, which is why most of events are now twilight or held at weekends.

The two-day ASE Summer Conference 2016: Sharing Practice and Driving Change held in July 2016 at the University of Hertfordshire received positive feedback with several keynote speakers, including Wynne Harlen OBE and Mary Whitehouse (University of York) Project Director of Embedding Formative Assessment.

The Technicians and Primary Science Committees were highly involved in joint conferences with the STEM Centre in York. The National Technicians' Conference in July 2016 was the 20th and ASE marked the occasion with free gifts to delegates.

Web-based resources and support

ASE's main website, the shop window for the Association, has a revised look and the ASE 'schoolscience' resources website remains well supported by external sponsors. Social media (#ASEchat, Facebook and Twitter) continues to grow in popularity and is used routinely to enhance communication and promotion.

Books and journals

Bestselling books include Be Safe (4th edition) and the ASE Guides to Primary, Secondary and Research in Science Education. ASE's new guidance publication 'The Language of Mathematics in Science: A Guide for Teachers of 11-16 Science' received wide acclaim when released in May 2016 and is likely to be a best seller during 2016/17.

The various ASE membership committees continue to contribute carefully crafted articles for our house journal, Education in Science (EiS), published four times per year and supplemented by web-based articles in EiSExtra. ASE receives great support from members and editors in the production of the following:

- School Science Review ran several themed editions during 2015/16. In September 2015 the focus was on 'Practical Work', in December 2015, the theme was 'Science, literacy and learning' and the March 2016 edition featured 'Mathematics in Science'.
- Primary Science continues to grow in popularity and with five editions per year there is a wealth of new and exciting materials. The September/October 2015 theme focused on 'STEM' and was followed in November/December with a feature on 'Into the melting pot' looking at the various methods and conflicting advice on how to teach science. The three themes in spring and summer 2016 were 'What's out there?', 'Language of Science' and 'Family Science'.
- Science Teacher Education is published online and as always includes a range of items covering research, opinion, debate and

humour, to appeal to all partners in Initial Teacher Education and to provide professional development for members.

- The Journal of Emergent Science is now open access, via the ASE and Primary Science Teaching Trust websites.

Projects and Initiatives

During 2015/16 there were a number of projects and initiatives, including:

- Timstar-funded schemes of learning to strengthen practical and investigative science which have been very well received.
- Wellcome Trust-funded 'Why You'll Never Catch Smallpox' project to develop teaching resources around Jenner's vaccination work.
- A Global Learning Project (in partnership with the Royal Geographical Society and with funding from DfID) to produce three primary activities on the Primary upd8 homepage and two secondary activities on the website of our partner, Practical Action.
- A new guidance publication, funded by the Nuffield Foundation, 'The Language of Mathematics in Science: A Guide for Teachers of 11-16 Science' which received wide acclaim when released in May 2016.
- Research Council UK-funded project to increase the visibility and profile of research on the main ASE and schoolscience websites with the main output being ten activities.
- A school-based research project on the potential use of Google Expeditions in secondary science and geography. The project involves the Field Studies Council, the Open University, the Geographical Association and ASE.
- ASE's Green Tick programme is gaining momentum as a gatekeeper of evaluative reports. Not all the resources submitted by publishers and education suppliers are being awarded, but suggested changes to materials are being welcomed and encouraging closer partnerships.

Project opportunities are regularly evaluated against their financial implications, their educational benefits and their likely impact on the reputation of ASE. When appropriate, bids

are submitted. A recent successful proposal is an Erasmus Plus (EU) project over three years known as I SEE – Inclusive STEM Education to Enhance the capacity to aspire and imagine future careers.

Key Strategic Objective 2 – ASE's voice and profile

Influencing external policy

It is the large membership that provides the confidence that ASE is the authentic voice of the profession. This year has seen no let-up in the number of consultations launched, or requests for ASE comment. The membership committees have actively responded to the consultations appropriate to their areas of interest.

The complexity of the science education environment across the UK has resulted in the need to address education policy in different ways. The ASE attempts to ensure that it represents the interests of all members be they from England, Northern Ireland, Scotland or Wales, as well as maintaining an international perspective. ASE produces its own separate responses to many of the issues our nations face, as well as working alongside other partners within the science community.

As a member organisation of the Alliance [previously SCORE (Science Community Representing Education)] ASE has contributed to consultation responses, supported by our national committees and taking into account the views from our Regional committees and/or directly from members.

Representation including international profile

ASE is represented by the Chief Executive on a number of national bodies; he is regularly asked to speak, to chair external science meetings and write on behalf of ASE.

Representation of the ASE is also provided by the Chair Trio, the Director of Curriculum Innovation and other staff, Trustee Body and Education

Group members, as well as members from the various committees of ASE.

In England, ASE has contributed to key consultations. In Scotland, ASE has been represented on the Royal Society of Edinburgh's Learned Societies' Group on Scottish Science Education. In Northern Ireland members have contributed to reform discussions with CCEA and have actively engaged with the Assembly Education Committee at Stormont. ASE Cymru has a high profile with regard to the Welsh Government and has been active through meetings, with the DFES and with elected members of Welsh Assembly Government.

The ASE has many links with science associations from other countries, as much of our work has international relevance. Many international links have been maintained by members as individuals or as representative of committees and in the past year we have worked closely with the British Council. As a result, ASE has presented at the International MARCH (MAKING science Real in sCHools) Education Conference in Berlin in November 2015, at a STEM education policy dialogue in Colombia in March 2016, and at the World Federation of Associations of Teacher Education conference in Barcelona in April 2016. ASE has hosted international visitors including Uruguayan teacher trainers and science educators from the Beijing Association for Science and Technology (BAST)

In March 2016, the Chief Executive and the Chair of the Association took part in the NSTA Conference in Nashville; NSTA delegates attended the ASE Annual Conference in January 2016 along with delegates from 30 countries.

By developing these networks the ASE can gain insights into professional practice that can be used to benefit our members and education in other areas of the world.

ASE policies

Reviewing ASE policy documents is organised by the Education Group (previously known as Assembly), with contributions from relevant committees; when adopted they feature prominently on the ASE website.

Key Strategic Objective 3 – Sustainability of ASE as an organisation

This strategic objective covers the governance of the Association and the systems that support it, including the finance operations.

Trustees working closely with the Chief Executive are delighted to report that the Association made a surplus for the second consecutive year and has strengthened its positive balance sheet.

ASE's financial viability was a key issue during the 2013/14 financial year, and a number of measures were put in place to stabilise the financial position of the Association. There has been a continued emphasis on prudent, managed monitoring of finances under a quarterly reporting system with interim area and monthly updates as appropriate. Cash-flow has continued to be keenly monitored by the Chief Executive, Finance team and Trustees.

The governance structure of the Association has continued to follow best practice of the charity sector, with performance against budget managed and reported regularly. All legislative reporting and other requirements were met promptly and efficiently. The major control documentations of the Association (the Strategic Plan, the Risk Register, the Operating Procedures and financial documentation) were kept up-to-date as appropriate.

Potential new partnerships are being actively developed. Consultants, rather than permanent employees, have been used to meet needs, such as in the organisation of the Annual Conference.

Plans for 2016/17

With the appointment of a new Chief Executive in May 2014, trustees had agreed that the Strategic Plan 2012-2017 would remain in place and that, following a critical review of the Association; a revised future strategy would start to be developed during the 2015/16 financial year

The Chief Executive has visited regions, attended committee meetings and organised an external 'Strategic Review of ASE' meeting in May 2016 with key partners, chaired by Professor Sir John Holman. Key partners congratulated ASE on what has been achieved in the past 2 years. Finances have improved, numbers at the recent Annual Conference were up on the previous year with greater teacher presence, membership numbers have stabilised and there is optimism and increased engagement of current members, particularly at committee level. The new Strategic Plan 2017-2020 will be presented to members at the January 2017 Annual General Meeting (AGM).

The Trustees are committed to providing improved services for members, whilst limiting operational costs and providing appropriate levels of customer service from the small administrative hub in Hatfield. The emphasis is on working towards an organisational model that is 'fit-for-purpose' with more flexible and integrated working, including greater use of volunteers, associates and consultants. This requires a coherent strategy to ensure that ASE members remain supported and engaged and that they feel part of a very special professional community at regional, national and international levels - members are the lifeblood of any membership organisation.

The Chief Executive stated on appointment that 2013/14 would be about survival, 2014/15 would

be centred on consolidation, with growth plans developed during 2015/16. The ASE is actively assessing new markets and new partnerships. There is recognition that these need to be considered on a wide geographical basis across our four nations, and internationally, to improve influence and raise ASE's profile. Supporting functions will need to be flexible enough to underpin future plans. ASE will ultimately need to increase its income by providing further services to science educators and by building on its ability to secure and take on development and research projects.

On the competitor front, the ASE is competing against larger and, in some cases, more influential organisations, as well bodies with powerful infrastructures and resources behind them. Procedures are in place to minimise risk and trustees recognise the threats of shrinking membership numbers and the unpredictability of delegates attending the Annual Conference.

Growing membership will remain the number one priority alongside continued professional support, the learning and recognition of members and the promotion of the importance of science education.

The ASE values and its commitment to science education will continue to guide direction as we continue to focus on promoting excellence in the teaching and learning of science.

Honorary Treasurer's Annual Report 2015/16

As the new Honorary Treasurer from August 2016 I wish to thank Des Dunne for his commitment and support as treasurer from August 2013 to July 2016.

On behalf of the Trustees, I am delighted to report that the Association continues to consolidate its position and is moving to a more secure position and into a phase of new development. Membership, Conferences and Projects (Initiatives) and to a lesser extent book-sales continue to be the core income streams of the Association.

The Trustees manage the monitoring of finances under a quarterly reporting system with monthly updates as appropriate. They actively monitored the budget and cash-flow on a regular basis during 2015-16. Cash-flow will continue to be keenly monitored by the Chief Executive, Finance team and Trustees to ensure the Association and its members can concentrate on the strategic aims and objectives of supporting science education across the UK and beyond.

With a reduced staffing the Association is now a fitter and leaner organisation, and through

effective working practices, has completed all necessary functions. Current staff worked very hard to make sure the Association provides high quality service for the membership. The Remuneration Committee believe conditions are such that trustees should now work towards restoring staff salaries to previous levels.

Trustees agreed to reward staff with a bonus for the 2015/16 year and a 2.5% increase in pay for the 2016/17 financial year; close analysis showed this is affordable without introducing an unacceptable risk. There is still a need to be prudent and the decision to balance increases in pay with one-off bonus payments reflects this approach. A budget has been set for 2016/17 projecting a break-even position with the hope that current efforts will actually improve on that.

The results for the year are set out in summary form with the Trustees Report; the full financial statements are available to members on the website or by PDF on request.

Roger McCune (*Honorary Treasurer*)

Statement of financial activities for the year ended 31 July 2016

	Unrestricted Funds	Restricted Funds	2016 Total Funds	2015 Total Funds
	£	£	£	£
Income				
Donations and legacies	1,555	-	1,555	700
Investments	712	-	712	546
Charitable activities	1,053,575	148,983	1,202,558	1,194,788
	<hr/>			
Total income	1,055,842	148,983	1,204,825	1,196,034
Expenditure				
Charitable activities	902,212	149,483	1,051,695	1,094,178
	<hr/>			
Total expenditure	902,212	149,483	1,051,695	1,094,178
	<hr/>			
Net income/(expenditure) for the year	153,630	(500)	153,130	101,856
Reconciliation of funds				
Total funds brought forward	47,377	10,819	58,196	(43,660)
	<hr/>			
Total funds carried forward	201,007	10,319	211,326	58,196
	<hr/> <hr/>			

The net movement in funds arises from continuing operations.

There were no recognised gains and losses other than those dealt with above.

Balance sheet as at 31 July 2016

	2016 £	2015 £
Fixed assets		
Tangible assets	4,068	10,101
Current assets		
Stocks	7,671	10,463
Debtors	110,005	80,979
Investments	-	436
Cash at bank and in hand	503,207	343,186
	<u>620,883</u>	<u>435,064</u>
Liabilities:		
Creditors: Amounts falling due within one year	(413,625)	(382,901)
	<u>207,258</u>	<u>52,163</u>
Net current liabilities		
	207,258	52,163
Total assets less current liabilities	<u>211,326</u>	<u>62,264</u>
Creditors: amounts falling due after more than one year	-	(4,068)
Net (liabilities)	<u>211,326</u>	<u>58,196</u>
The funds of the charity		
Restricted funds	10,319	10,819
Unrestricted funds	201,007	47,377
	<u>211,326</u>	<u>58,196</u>
Total charity funds	<u>211,326</u>	<u>58,196</u>

Approved by the Trustees on 23 November 2016 and signed on their behalf by
Richard Needham Trustee

Notes to the summary financial statements for the year ended 31st July 2016

	2016	2015
	£	£
1 Incoming resources		
Donations and Legacies	1,555	700
Investment Income	712	546
Registration and Accreditation Income	521,208	528,396
Publications Income	69,073	71,488
Association journal income	107,182	87,013
Conferences Income	343,918	370,833
Other Income	12,194	24,588
Income from sponsored projects	148,983	112,470
	<u>1,204,825</u>	<u>1,196,034</u>
Resources expended		
Members Registration & Services	125,091	120,145
Publications costs	54,988	74,976
Association journal expenditure	246,910	234,125
Conferences expenditure	240,402	289,444
Regional Expenses	77,045	86,638
Other Charitable Activity Costs	124,749	135,449
Project and Initiatives	148,983	112,970
Governance Costs	33,527	40,431
	<u>1,051,695</u>	<u>1,094,178</u>
Net income/(expenditure) for the year	<u>153,130</u>	<u>101,856</u>

- 2 The financial information contained in this Report is a summary of the information extracted from and consistent with the annual statutory accounts.
- 3 The summary accounts do not contain sufficient information to allow for a full understanding of the financial affairs of the charity. For further information, the full annual accounts, the auditor's report on those accounts and the accompanying notes, Trustees report and Annual Report should be consulted and copies may be obtained from ASE, College Lane, Hatfield, AL10 9AA
- 4 The full annual accounts have been audited and carry an unqualified audit report.
- 5 The financial statements were approved by the Trustees on 23 November 2016 and will be presented to members at the 2017 Annual General Meeting.

Richard Needham

Trustee