



# ANNUAL REPORT 2012-2013

MATHEMATICAL ASSOCIATION



supporting mathematics in education

## President's Report

When I went up to my secondary school, the thought of becoming a mathematician hadn't crossed my mind. I'd decided at an early age that when I grew up I wanted to become a spy. If I was going to be able to talk to my fellow agents across the world, I realised I was going to have to be good at languages.

So when I started school I signed up for every language possible. They taught French, German and, unusually for a comprehensive at the time, also Latin. The BBC started running a Russian course on television and my French teacher offered to help me with it. I thought the Russian would be especially useful for my dream to become a spy.

But the truth was that I found learning languages very difficult. There didn't seem to be any logic to explain why certain verbs behaved the way they did, and why certain nouns were masculine or feminine. And I was hopeless at spelling, even in English. The Russian course was a disaster. I could never get my mouth around saying hello – Zdravstvuyte. Since this was the name of the programme and even after eight weeks of following the course I still couldn't say it, I began to despair.

Latin did hold out some prospects, as the strict grammar appealed to my emerging desire for things which made logical sense and weren't just apparently random associations. Or was it that it was always my name that the teacher used for second declension nouns: Marcus, Marce, Marcum...

Then at the age of 12 my mathematics teacher pointed at me during a class and said: "du Sautoy, see me at the end of the lesson". I thought I must be in trouble. When he took me round the back of the maths block I knew I was really in trouble. But then he took out a cigar from his pocket. He explained that this is where he came to smoke at break-time. The other teachers didn't like the smoke in the common room. He lit the cigar slowly and turned to me: "I think you should find out what mathematics is really about".

I don't quite know even now why he singled me out from all the others in the class to get this revelation. I was far from being a maths prodigy and lots of my friends seemed equally talented at the subject. But something obviously



made Mr Bailson think that I might have an appetite for finding what was out there beyond the arithmetic of the classroom.

He told me I should read Martin Gardner's column in *Scientific American*. He gave me the name of a few books which he thought I might enjoy, including G H Hardy's *A Mathematician's Apology* and one called *The Language of Mathematics* by Frank Land. Just the effect of a teacher taking a personal interest in me was enough to spur me on to find out what he was talking about.

*The Language of Mathematics* particularly intrigued me. I'd never thought of mathematics as a language. At school it just seemed to be a load of numbers that you could multiply or divide, add or subtract with varying degrees of difficulty. But as I looked through this book I realised what my teacher had meant: "you should find out what maths is really about". It was those books and his interest that I have to thank for inspiring my love of mathematics.

During my year as president of The Mathematical Association I've been greatly encouraged to see how many other 'Mr and Mrs Bailsos' there are out there in the teaching profession. The future of mathematics as a living, breathing subject depends on teachers giving

students the key to the secret garden of mathematics. It is with much gratitude that I thank The Mathematical Association for having me as its President this year. Supporting teachers is as important as nurturing students. The future of our subject is in the hands of those teachers who can share with students the powerful language that is mathematics.

**Marcus du Sautoy (President 2012-2013)**

### **Chair's Report from Council**

Council meets quarterly on Saturdays at MA Headquarters. The normal pattern for a Council meeting is to start at 10.30 and finish at 15.30, with a lunch break of roughly 30 minutes. Five hours is about the limit for intense discussion as thereafter fatigue sets in. During that time a huge amount of business has to be transacted. Major items come at the top of the agenda. Later on in the meeting, some reports from committees might be accepted without debate when there are no major issues.

In between each Council meeting there is a meeting of Standing Committee which again typically lasts for about five hours. Each such meeting reviews the outcome of the previous Council meeting and prepares the ground for the next. The emphasis tends to be on matters of strategy rather than on the fine detail of reports from committees. Standing Committee has the power to act on Council's behalf if an issue arises which has to be handled quickly but it has to report to the next Council meeting on the action it has taken.

An early agenda item at each Council meeting is Finance. Bill Richardson, in his first year as Treasurer, has presented regular Profit & Loss statements which have enabled Council to analyse the income and expenditure under various headings. The timing of payments can make it difficult to obtain a direct comparison with the previous year. The amount that appears in the accounts for the loss over the financial year 2012 should be viewed in this light. The Association has made considerable progress in cutting expenditure. However increasing income has proved a challenge and much work remains to be done in this regard. Particularly worrying has been a drop in subscription income. Members are the lifeblood of the Association and there have been long debates on how to arrest the decline in membership.

Council has been examining the way it conducts its business. Two issues that have received particular attention are the size of Council and the number of meetings held each year. Currently the size of Council is 22 and this number includes the Officers, the Chairs of major committees and 9 Members without Office. There is a view that Council is too big and should be reduced in size by around 3 members. Discussions are ongoing as to how this might be achieved. A feasibility study is also ongoing to see if it would be possible to reduce the number of Council meetings per year from 4 to 3 without affecting the efficiency and effectiveness of Council. Mindful of the demands on members' time, Council has also been considering whether it might be possible to use modern technology in appropriate circumstances.

The website has continued to generate a considerable amount of discussion. As reported last year, the existing

site is being completely overhauled. It is intended to introduce a Members' Area where members will be able to go online to pay subscriptions, register for the Annual Conference, obtain discounts on items in the online shop and gain access to high quality teaching resources. It is fair to say that the development of the new website has not been without its problems and frustrations. However, at the time of writing, there is now a realistic possibility that the new site will be operational very soon.

The various committees form a major part of MA business. Reports on their activities can be found later in this Annual Report and so I shall not duplicate details here. However, I would like to single out Teaching Committee (TC) which has by far the heaviest load. Indeed TC could be regarded as the engine room of the MA. The previous year saw the election of a new government while this year saw changes among the ministerial team at the Department for Education, as well as U-turns in government policy. The deluge of consultations continued unabated, with many being related to the proposed new National Curriculum. Details of some of these were received directly while others were disseminated via the Joint Mathematical Council on which the MA is represented. TC, with the aid of its various subcommittees, was the natural body to scrutinise most of these documents and, where appropriate, to prepare a response or position paper. Most of these can be found on the *We Say* section of the website. Not surprisingly, there are often various shades of opinion among colleagues. Fortunately we are blessed with a number of people who can take a range of disparate views and mould them into coherent and cogent documents.

It is appropriate at this stage to recognise the huge input from Chris Pritchard, who is stepping down as Chair of TC. When he took on this role four years ago, he restructured the main committee, reducing its size, making use of link members for liaison with other committees and establishing a small Advisory Group. This new structure has proved to be well suited to the huge workload of TC.

Invitations are often received to send representatives to the launch of an initiative or a meeting with government officials. Every effort is made to take up such invitations so that the MA maintains a high profile and its voice is heard. In the latter connection the MA has engaged Mango Marketing on a time-limited basis. While it is hard to assess how successful such a venture is proving to be, it can be said that the MA has obtained a number of mentions in the media and some educational journals, as well as in official documents and reports.

The year has seen increased liaison with the Association of Teachers of Mathematics (ATM). Two manifestations of this were a joint response to consultation on aspects of the National Curriculum and joint representation at a proposed meeting with ministers and civil servants at the Department of Education. A possible joint MA/ATM Conference in 2016 is currently being explored.

At each Annual General Meeting, various members of Council come to the end of their terms of office. In addition to Chris Pritchard, those stepping down in April 2013 included Paul Andrews (Immediate Past President) and Liz Woodham (Member without Office). Marcus du

Sautoy stepped down as President and was succeeded by Peter Ransom.

The MA faces many challenges. Nevertheless, with a solid foundation of talented and enthusiastic colleagues on Council and on the various committees, the MA can look to the future with cautious optimism.

***Adam McBride (Chair of Council)***

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#### **Branches Committee**

The Branches Committee met twice during the year, once in October at HQ and also immediately after the MA Conference at Keele in April 2012.

At the October meeting, the morning was spent covering usual 'Branches business'. Individual Branch programmes of events for the academic year were presented; Branch finances confirmed; Committee officers were elected; reports from other MA committees were received. The afternoon session was spent discussing a working paper written by the Branches Chair entitled 'What Future for MA Branches?' This paper tried to highlight the reasons behind declining numbers of Branches and Branch members over the years and to tentatively suggest ideas for reversing this trend over the next few years. It became clear from the discussion that even some existing Branches are experiencing difficulties in maintaining levels of activity and that 'new blood with fresh ideas' would be welcome both locally and at Branches committee. Future plans must target this.

The April meeting reported on the year so far. It was noted that Branch events were similar in number to 2010-11 and audience figures quoted were encouraging. The meeting discussed how *MA News* should be a vehicle for publicising future Branch events and also as a feedback mechanism on the success of recent past events, so that members were fully aware of a thriving and successful local Branch. This applied similarly to the Branches pages of the MA website and further discussion took place relating to the features and functionality a re-designed website must have if it wants to attract more readers. Promotional features such as 'How to set up an MA Branch' are planned to aim at the younger professional teacher audience.

Pressures on Branch activity continue to mount. For example, some institutions are now charging for room use; some local Branch committees are struggling for members with the effect of an increasing workload on the few; teacher members appear to be under an ever-increasing pressure of work. Despite this, 2012-13 has seen a good number of examples of well-run events, with many teachers and their students responding very positively about the benefits of such events. Local Branch officers remain enthusiastic about what they do. The Branches Committee will do everything it can to maintain and expand the activities of its Branches in the coming years.

***Dave Pountney (Chair of Branches)***

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#### **Annual Conference 2013**

The Annual Conference saw a return to Loughborough and a wide and exciting programme of activities focused on the teaching and learning of mathematics at all levels.

Sadly, which I suspect is a sign of the times, numbers were lower than we had hope for, although all those who went had an enjoyable and rewarding time, both socially and professionally. There were some excellent sessions. However, to avoid apparent favouritism I shall restrict my comments to the plenary talks. Rachael Horsman opened the conference with an account from the front line. Full of energy and enthusiasm, Rachael not only reminded us of the joys of being a teacher of school mathematics but gave us a number of delightful tasks to take with us. Marcus du Sautoy's Presidential Address, in which he told some of the great stories of mathematics that have inspired him, set the tone for the conference. Finally, the conference was closed with David Spiegelhalter's hugely entertaining talk ( but equally worrying when set against human beings' largely false intuitions about uncertainty ) on probability and risk. Between times, the conference dinner was a typically enjoyable opportunity to enjoy good food, good company and good wine, followed by one of the most entertaining and mathematically challenging after-dinner talks I have ever experienced. Art Benjamin's mental mathematical gymnastics were not only astounding and amusing but a measure of what a human mind can do when determinedly focused on mastering a particular challenge; which is probably why most of us were attracted to mathematics in the first place.

***Paul Andrews (Chair of Conferences)***

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#### **Professional Development Committee**

The Professional Development Committee met three times during 2012-13 (the November meeting being convened using the online service GoToMeeting) and the main function of the Committee continues to be concerned with the close monitoring of its professional development projects and events aimed both at members of the MA and at the wider teaching workforce in line with the principal objective of the Association which is "to promote and support the professional development of teachers".

The Committee promotes the award of Chartered Mathematics Teacher status for those actively involved in mathematics teaching and three of its members, Jennie Golding, Liz Woodham and Alison Clark-Wilson continued to represent The Mathematical Association on the Chartered Mathematics Teacher Registration Authority. Full details of the designation and how to apply can be found on The Mathematical Association's website (<http://www.m-a.org.uk/jsp/index.jsp?lnk=150>).

The Committee oversaw two one-day events for teachers of mathematics during 2012-13, and what follows is a brief summary of these conferences.

The committee continues to be indebted to Bill Richardson in his role as organiser of the highly successful Annual Scottish One-day Conference for Teachers of Secondary Mathematics, which held its 7th conference at the University of Stirling on 29th September 2012. The event maintains its position as a regular event on Scottish mathematics teachers' annual calendars and the day was enjoyed by over 160 delegates, which represented an increase on the previous year's conference.

A one-day event, *Foundations for Algebra*, was held at Wycombe High School on Saturday 3rd November 2012. The event attracted 30 participants, who were mainly primary teachers. The event was planned and organised by Peter Ransom and Julia Brown, for which PDC is highly appreciative, particularly as they were under the spotlight of NCETM colleagues who observed the event as part of an NCETM CPD Standard monitoring visit. The subsequent report praised the high quality of the event, whilst also providing some development points to widen and enhance The Mathematical Association's PD provision.

Finally, the Committee said goodbye to its Chair, Liz Woodham, who formally resigned from this role in September 2012. We thank her for her work and wish her well in the future.

**Alison Clark-Wilson**  
**(acting Chair of Professional Development)**

### Publications Committee

The Committee consisted of me, Michael Fox, Paul Harris, Mary Ledwick, Bill Richardson and Sue Waring. Our task is simply described:

*"to publish, at a profit, innovative and exciting publications that further the aims of the association."*

To this end, over the year we have published the following titles

*More Problem Solving – The creative side of Mathematics:* Derek Holton;

*GCSE Revision Cards (Higher Tier):* Mary Ledwick;

*Padlock Challenges (KS 3):* Rachael Horsman;

*Maths Adventures with Two (KS1):* Sue Waring;

*GCSE Posters:* Mary Ledwick.

All were published in time for Conference.

During the year we made a significant surplus on our trading. A part of this came from our new sales channel through *Amazon*. We will hope to build our expertise and experience of this important way to market our titles.

We look forward to another year of continuing success, finding new ideas and the people to develop them through to publication. We welcome all ideas.

Again I give my thanks to the Committee for all their dedicated hard work over the last year, and to all the others who give their time and expertise in preparing resources for publication.

**Barry Lewis (Chair of Publications)**  
[barry@mathscounts.org](mailto:barry@mathscounts.org)

### Editorial Happenings

First, I would like to express my gratitude to the editorial and production teams who do such a brilliant job of producing the journals for the Association. In particular I would like to thank the following for their tireless work:

#### Editors:

Jenni Back	<i>Primary Mathematics</i>
John Berry	<i>Mathematics in School</i>
Ray Gibbons	<i>Equals</i>
Ray Huntley	<i>Primary Mathematics</i>
Gerry Leversha	<i>The Mathematical Gazette</i>
Cherri Moseley	<i>Primary Mathematics</i>
Chris Pritchard	<i>Mathematics in School</i>

Peter Ransom	<i>Symmetry Plus</i>
Will Ransom	<i>Mathematical Pie</i> (and Erik Gooding for <i>Pie Notes</i> )
Sue Waring	<i>MA News</i>

#### Production Teams

Helen Morris	<i>Mathematics in School</i>
Bill Richardson	<i>The Mathematical Gazette</i>
Tina Webb	<i>Mathematics in School</i> and <i>Primary Mathematics</i>

#### Advertising

Janet Powell

Without the hard work of the above, and many others who do tasks such as proof reading and editing the reviews, the Association would not have such a wide range of excellent journals. I would also like to thank the staff at HQ for all the assistance that they give to the editors and production teams.

This has been more of a reflective year for the Editorial Board than perhaps the previous years have been. The Association has carried out a review of the work carried out by the editors to investigate relative sizes of the workloads of the different editorial teams so that this is reflected in the Honoraria paid to the Editors for the work that they do. In the next year or so, there will be a similar review of relative workloads of the production teams.

Once again I would like to thank the editorial and production teams for their hard work, and I look forward to working with them in 2013-14 so that we may continue to produce the high quality journals that the Association can be proud of.

**Paul Harris (Editor-in-Chief)**

### Primary Mathematics Challenge

This year there was a disappointing drop in numbers taking part in the PMC. The number of schools dropped from 2432 to 1880. 7054 packs were sold. The reason for the drop is unknown.

An unusually large number of pupils scored high marks in the November paper. 268 pupils scored 25/25, 585 scored 24/25 and 887 scored 23/25 so 1740 pupils were invited to sit the Bonus round. Either the children are becoming more able or the paper was a little too easy! On the bonus round just 9 pupils scored 25/25, and 515 pupils scored 20+ and will be awarded a medal.

The administrative changes which were brought in last year were continued this year. Packs were all mailed out together. As ever, postal delays caused some problems and some packs were never delivered. Where possible, the MA office arranged for replacement packs to be sent and in some cases a PDF was sent to the school so that they could take the Challenge at the appropriate time. It might be better to offer PMC as a PDF to all schools overseas, with charges varying according to the number of pupils to be entered.

We received feedback from many of the schools which entered, most of which was positive. Generally the administration is considered to be efficient and easy.

The MA office staff suggested that all schools should be required to use the Royal Mail tracking service, so this charge would automatically be added to the order. The

management team considered this, but as the cost of PMC may be one reason for the drop in numbers it was decided to continue as currently for another year and re-consider the matter next year.

More schools are registering on-line, but payment cannot be made on-line. We are investigating whether on-line registrations could automatically generate an invoice for the school.

Peter Bailey has been leading the Problems Team since Rudolf Loewenstein stepped down. Alex Voice has now offered to take on this role and has also offered to prepare the papers and do the typesetting.

The new PMC book is published and available from MA publications.

The current financial situation is clearly affected by the low uptake this year, but nevertheless there is a very clear surplus in the PMC accounts. The MA Sage accounts show a surplus of approximately £40k, although this does not include staffing costs.

We experimented with 'blanket mailings' to two LEAs this year. We mailed 1777 Yorkshire schools and received 130 orders (24 of which had never previously entered). We mailed 380 Surrey schools and received orders from 116 (10 of which had never previously entered). We intend to target two different authorities this year as well as continuing with mailings to schools which have entered in the last five years and to MAST course leaders. We would also like to increase our advertising to independent schools and to identify and target schools which are achieving high SATs results.

*Lesley Jones (Chair of PMC Management Team)*

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### Library Committee

#### Disposal of Books and Archival Material:

A policy for disposal, or otherwise, of all components of the MA Library has been prepared, presented to Council, and agreed in its entirety, bar the Wittgenstein Archive (see below). A small box of duplicate books has been donated to the STEM Centre in York.

#### Wittgenstein Archive of Francis Skinner:

The Library Committee recommended to Council that the Archive should be digitised, at Trinity College's expense, and that the Archive should not be sold. The Council and its Standing Committee are divided on the two issues, and the future of the Archive remains unresolved. The history of the Archive and its links with R L Goodstein (a former Librarian and President) have been incorporated in a presentation by Mike Price and Mary Walmsley given at a commemorative day on 'The Legacy of Goodstein', held at the University of Leicester to mark the centenary of Goodstein's birth. The presentation has been developed to appear as an article in *The Mathematical Gazette* later in 2013.

#### Hersee Book and Manuscript Collections:

A sample of photographs by Mary Walmsley has been added to the pdf file which includes contents listings for nearly two hundred of the Hersee manuscript copy books. Members of the Hersee family have visited over one day both the David Wilson Library and the John Hersee Room

at MA HQ to see how the entire mathematical library of John Hersee – books and manuscripts – has been accommodated by the MA and the University of Leicester. The Hersee manuscripts have been publicised both by Mike Price in an article for *MA News* and by John Denniss in a new monograph, *Figuring It Out* (2012), concerning his own comparable collection.

*MA News* has also celebrated fifty years of MA newsletters in its 150<sup>th</sup> number which features an illustrated article by Mike Price and Mary Walmsley on the changing editorship and format of these newsletters.

#### Storage and Cataloguing:

A complete chronology of all the nineteenth-century publications of The Association for the Improvement of Geometrical Teaching (the MA's original name) has been prepared and added to the MA website as a spreadsheet file, alongside the file listing all the MA's twentieth-century publications.

A review has been undertaken of the condition and value of all the MA books, including some duplicates, over the period 1800-1850, which are still accommodated on the open shelves. In consequence, many books have been identified for transfer to the more secure locations of the David Wilson Library's Special Collections or the External Store. This work is ongoing and is being overseen by Dr Simon Dixon, Special Collections Manager who was appointed in 2012. He is the new University Library staff link for the MA and his strong support in his new role is already evident.

*Mike Price (Librarian and Chair of Library Committee)*

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### Teaching Committee

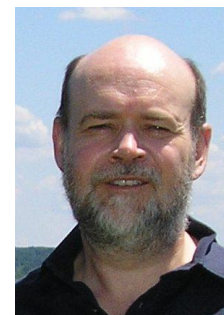
Teaching Committee

tc-chair@m-a.org.uk

*Chair* Chris Pritchard  
chrispritchard2@aol.com

*Secretary* Sue Forrest

*Acting Chair Designate*  
Rachael Horsman



Once more this year, the rate of change within education has been considerable and Teaching Committee, together with its three age-and-stage subcommittees, has been pressed to meet the challenges presented. Since the summer, we have produced the following responses and position papers which can now be found at the *We Say* section of the Mathematical Association website:

- Response to DfE's KS4 Reform Proposals
- Statement on Measuring Performance
- Detailed Position Paper on Measuring Performance
- Commending Ofsted's *Mathematics: Made to Measure*
- Response to Ofqual's A Level Reform Proposals

My thanks to all those who contributed to the construction of these documents, whether from the greater TC family or from Council.

The level of our engagement with various bodies is increasing all the time. Many of our contacts are through a formal process but we are also called on to provide guidance behind the scenes, for example in the case of Jenny Orton's responding to ACME's post-16 strategy. There was high-level contact with the DfE through the attendance of Stefano Pozzi at the most recent meeting of Teaching Committee at the end of January. Stefano is overseeing the current changes to the National Curriculum, both at primary and secondary levels, and we took the opportunity to quiz him on the philosophical background and the practicalities of the latest developments. The discussions have been written up for *Mathematics in School*, *We Say* and *MA News*.

As to future work, we are hoping that a proposed collaboration with Oxfam and Think Global will attract funding from the Nuffield Foundation. On Oxfam's website there are already a number of cross-curricular resources for teachers to incorporate in their lessons. Our role would be to ensure that mathematical or statistical aspects are handled according to the latest pedagogical advice and in line with the needs of the curriculum. If the funding does not come through, we would likely continue to work with Oxfam but on a smaller scale.

There have been additions to our membership in Alison Parish, Caroline Clissold and Jim Simons, and Teaching Committee has already been bolstered by their attendance and contributions. Our Primary Subcommittee, which forms part of a substantial, joint MA/ATM Primary Group under Viv Townsend, is especially strong and increasingly influential. The 11-16 Subcommittee has had another fine year under Rachael Horsman but, with her attention moving elsewhere, a new Chair is needed for this group. Meanwhile, the Post-16 Subcommittee, temporarily led by Tom Button, is actively seeking new blood. If you would like to be involved with any of our groups, please speak to the respective Chair or to Sue Forrest as TC Secretary. You will be made most welcome, especially if you're keen to roll up your sleeves. There remains much to do, and at pace.

This is my last Annual Report as Chair, so I would like to comment very briefly on the four years I have had the privilege to lead this most important of MA Committees. Our work during this time has featured an initial period of structural change which saw the primary representation strengthened and a greater capacity to produce position papers and respond to the unrelenting political agenda for change. My thanks go to the subcommittee Chairs and their members, to our small Advisory Group and to Council. TC members have worked tirelessly to meet the challenges we have faced and the contributions of Peter Thomas, then Sue Forrest and David Miles, have been noteworthy. I trust that the whole Association will provide the incoming Chair with every support.



Primary Subcommittee  
tc-121@m-a.org.uk

Chair Vivien Townsend

This year, the group has gone from strength to strength and we now have an astonishing 65 members covering pretty much every possible job in primary mathematics education, and many corners of the UK (and beyond). 15±5 of us meet termly and we are committed in these meetings, and in between them through lively email conversations, to do, further and promote the work of MA and ATM. We would welcome new members – especially practising teachers – who are keen to get involved. If you'd like to join us, please get in touch.

The past 12 months have been largely occupied with the developments to the NC. In June 2012, upon publication of the first draft, we composed a comprehensive, well-referenced and heart-felt response via ACME, which we also sent directly to DfE and other parties. This response is available via association websites. As a result of our response, we were invited to meet with Nick Gibb MP in the autumn. Unfortunately, when he was replaced by Liz Truss, despite our letters requesting that the meeting be kept, it was cancelled. The good news is that we have been recently invited (along with secondary colleagues from MA/ATM) to meet with her in March. Watch this space.

The second draft of the NC for public consultation was published in February 2013 and we are currently busy collating our thoughts in order to respond with the same rigour as earlier. Stefano Pozzi from DfE met with the group in February to hear our ideas and answer our questions about this draft. As we had also been in contact with DfE about changes to the EYFS curriculum (in November), we took the opportunity to ask Stefano about some aspects of this as well.

Looking ahead, we will be considering how we support primary members of MA/ATM in preparing for the new curriculum. We are still working on the joint publication about cross-curricular opportunities ...and Maths and considering how this fits with the new curriculum.

Members continue to promote MA and ATM publications and membership in their professional interactions and the group continues to consider how to encourage primary teachers/schools to join a subject association, as well as how to make the associations more attractive to primary institutions and practitioners. The group has explored various possibilities for joint working over the past year and will continue to do so where it is felt to be beneficial.

Cherri Moseley (MA) and myself (ATM) are part of a newly-formed group of representatives from across all subject associations. This has resulted in the maths associations being marketed with all of the others on the TeachIt Primary website, and has also resulted in closer working between the different associations. We have been invited to talk at NAPE and ASPE events and there is

a possibility of us being involved in a series of conferences covering all subject areas in the future.



11–16 Subcommittee

*Chair* Rachael Horsman

tc-132@m-a.org.uk

The 11-16 Subcommittee continues to be well attended, with representation from the private and state sectors, retired and numeracy consultant members. The group has had three meetings at MA Headquarters in Leicester during the year, each a full and lively day of discussions and production of papers, responses and resources.

Following on the back of the successful revision cards, the subcommittee has worked on several new publications included an upcoming book *Padlock Challenges*, revision posters about angles rules and geometric proof and a Mathematical Association Calendar (for 2014). Yet again the subcommittee has been involved in a number of CPD events including the Annual Conference and the September Stirling Conference. As opening speaker at the 2013 Conference, I hope that we can further advertise the good work of the Association and its members.

A large amount of time has been spent collecting members' views and opinions for the multiple consultations and papers that needed a response. Our thanks go to David Miles, Sue Forrest and Chris Pritchard for all their hard work in putting these together under TC's guidance.

Looking to the year ahead the subcommittee is concentrating on developing more 'pull out' resources for *Mathematics in School*. We are hoping that this will help encourage more teachers to become subcommittee members. We will also be collecting comments on the new KS3 and KS4 programmes of study when the consultations begin. If you would like to add your opinions to our response to the new consultation, or join the subcommittee, please get in touch. We look forward to another productive year!

Post-16 Subcommittee

*Interim Chair* Tom Button

tc-129@m-a.org.uk



I would like to start by thanking Jenny Orton for all her hard work chairing the post-16 subcommittee over the last year. Jenny is taking a break from this role and I am currently standing in for her.

The Post-16 subcommittee has met termly in London this year where he have devoted our time to discussing materials produced for teachers and proposals and reports relating to post-16 mathematics.

We are continuing to work on the 'Hooks' for post-16 mathematics. These are single visual images that can be used by teachers to provoke discussion and investigation and we expect to have these available soon. We are also revisiting the website content in the post-16 area to ensure there is information there to support all members who teach students at this level.

We have recently responded to a number of consultations and reports relating to post-16 mathematics, such as the ACME paper on Post-16 Mathematics and the Nuffield Foundation report on international comparisons in post-16 Mathematics. The quantity of consultations, reports and initiatives in this area is likely to grow in the near future and we will continue to respond and contribute to these, as it is important that the subject associations have a strong voice in all proposed changes to A-Levels and other post-16 mathematics qualifications.

We represent a good range of post-16 environments, but are always interested in any prospective new members so as to be able to strengthen our responses to any consultations and reports. Please contact me by email or find me at the Annual Conference if you are interested in joining us.

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#### **United Kingdom Mathematics Trust (UKMT)**

The numbers of students entered for the Mathematics Challenges this year were as follows: Junior 283,520; Intermediate 245,760; Senior 98,560. There was a record number of entries to the Senior Challenge, and entries to both the Intermediate and Junior Challenges were also up compared to 2011-12. 1,647 teams entered the Team Mathematics Challenge, and 1,100 teams entered the Senior Team Mathematics Challenge, both these numbers up on the previous year. In addition, eight teacher meetings are due to take place in the early summer 2013, in Cardiff, Cambridge, Glasgow, Greenwich, Liverpool, Southampton, Warwick and York, and students continue to benefit from the mentoring scheme. There is an increasing list of mathematical books published by UKMT, with three new books published in 2012-13.

In July 2012, the International Mathematical Olympiad was held in Argentina, and the UK team came back with 1 Gold, 1 Silver and 4 Bronze medals, and came joint 22nd equal out of 100 participating countries. The 54th IMO will be held in Colombia, in July 2013. The second European Girls' Mathematical Olympiad was held in Luxembourg in April 2013. The UK team was awarded 1 silver medal, 1 bronze medal and 2 honourable mentions, and came 11th out of 22 participating countries. EGMO 2014 will be held in Turkey. A UK team was also sent to compete in the Romanian Master of Mathematics in February 2013, where they came 3rd out of 15 teams, behind the USA and Russia.

The UKMT continued to run activities introduced last year. More students were invited to participate in the Senior Kangaroo (which was introduced last year as a new follow on round to the Senior Challenge), and a new set of Primary Team Mathematics resources were launched in January 2013. This set of materials was once again produced with the aim of providing secondary schools with materials to run mathematical events for their feeder

primary schools. The teacher notes accompanying these resources refer teachers to further relevant materials including the Primary Mathematics Challenge, and links to the MA website.

The Mathematical Circles trialled last year are being expanded from April 2013 thanks to new funding from the DfE. The DfE is also providing funding in 2013 and 2014 to expand the Summer School programme and run two new Summer Schools. This is in addition to the new Summer School for Girls supported by numerous colleges at Oxford University in August 2013.

Arrangements for the UKMT to host the international Association Kangourou sans Frontières meeting in Edinburgh in late October 2013 are progressing.

The dates for the challenges in 2013-14 are: Junior Challenge (ages 11-13): Thursday 1 May 2014; Intermediate Challenge (ages 13-16): Thursday 6 February 2014; Senior Challenge (ages 16-18): Thursday 7 November 2013. In addition to these three challenges, students who do well are invited to take part in the follow-on rounds, the Junior, Intermediate and British Mathematical Olympiads and the Kangaroos.

The UKMT recently set up a money-giving page and welcomes donations regardless of size. Further information can be found at [www.donate.ukmt.org.uk](http://www.donate.ukmt.org.uk).

UKMT is always looking for more helpers, whether to submit questions or to help at events. There is a form for volunteers at:

<http://www.getting-involved.ukmt.org.uk/>

***John Silvester (MA representative)***

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### **The British Mathematical Olympiad Committee**

The location for the International Mathematical Olympiad in July 2012 was, as it had been in 1997, Mar del Plata in Argentina. The UK team came away with one gold, one silver and four bronze medals, placing the UK 22nd= out of more than 100 participating countries. In September, at the Royal Society celebration of their achievement, Professor Ben Green gave a lecture on "Prime Numbers". Earlier, in April, Turkey hosted the Balkan Mathematical Olympiad; there the UK team won two silver and two bronze medals, with the remaining two members each receiving an honourable mention (for a complete solution by a non-medal winner). The preparatory rounds for the 2013 International competitions included the UK Mathematical Olympiad for Girls in September and BMO1 and 2 in December and January. At the Romanian Master of Mathematics in February the UK put in a very creditable performance (two gold, one silver, one bronze, two honourable mentions), placing them third out of 15. And

at the European Girls Mathematical Olympiad in Luxembourg in April the UK team of four gained one silver, one bronze and two honourable mentions, to rank them 11th out of 22 teams.

As usual there were two Summer Schools in July 2012 in Birmingham for pupils from Years 10 and 11; the Mentoring scheme continued for all age-groups; and training camps for potential Olympiad competitors were held in Oxford, Hungary, Cambridge and Oundle.

***Philip Coggins (MA Representative)***

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### **Headquarters**

#### **At April 2012, the Headquarters Team was:-**

Senior Administrator - Marcia Murray  
Finance Officer - Linda Medhurst  
Membership Officer - Charnjit Seehra  
Administrative Assistant - Lisa O'Donnell  
Clerical Assistant - Emma de Riso

***Marcia Murray (Senior Administrator)***

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### **Association Regulations**

Regulations can be viewed at:  
<http://www.m-a.org.uk/jsp/index.jsp?lnk=850>

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### **The Council from April 2013**

President	Peter Ransom
Immediate Past President	Marcus du Sautoy
President Elect	Lynne McClure
Chair of Council	Adam McBride
Secretary	Catherine Farmar
Treasurer	Bill Richardson

#### Chairs of Committees

Branches	David Pountney
Conferences	Vacant
Editor-in-Chief	Paul Harris
Professional Development	Julia Brown (acting)
Publications	Barry Lewis
Publicity and Membership	Cherri Moseley
Teaching Committee	Rachael Horsman (acting)

#### Members-without-Office

Fiona Allan	Paul Metcalf
Alison Clark-Wilson	Chris Pritchard
David Crawford	Charlie Stripp
Tony Gardiner	

The Company Secretary is Mr Bill Richardson.



**BALANCE SHEET  
31 DECEMBER 2012**

		2012	2011
	Notes	£	£
<b>FIXED ASSETS</b>			
Tangible	6	292,725	298,896
<b>CURRENT ASSETS</b>			
Stocks		17,970	19,736
Debtors	7	15,212	18,369
Cash at bank and in hand		299,114	335,987
		<u>332,296</u>	<u>374,092</u>
<b>CREDITORS: amounts falling due within one year</b>	<b>8</b>	<b>(72,023)</b>	<b>(105,897)</b>
<b>NET CURRENT ASSETS</b>		<u><b>260,273</b></u>	<u>268,195</u>
<b>TOTAL ASSETS LESS CURRENT LIABILITIES</b>		<u><b>552,998</b></u>	<u>567,091</u>
<b>REPRESENTED BY</b>			
Revaluation reserve	10	141,000	147,000
Unrestricted Funds	10	411,998	420,091
		<u><b>552,998</b></u>	<u>567,091</u>

The financial statements have been prepared in accordance with the special provisions of Part 15 of the Companies Act 2006 relating to small companies and in accordance with the Financial Reporting Standard for Smaller Entities (effective April 2008).

The financial statements were approved and authorised for issue by the Council and were signed on its behalf on