



REPORT OF ACTIVITIES

2013-14

Introduction

At Maths on Toast, we transform attitudes to mathematics by making it family fun. Our creative events and activities broaden perceptions of what maths is; showing it as social, human, and, above all, fun and achievable.

During our second year, we have focused on consolidating what we do, broadening our audiences and building our networks. We have become more financially sustainable, and improved the mechanisms we use to measure the impact of our work. We have increased our profile within the mathematics community, and we have built new partnerships, which are enabling us to bring maths to families in unusual, innovative and, of course, fun ways.

Attitudes to maths are often inherited, so we work with children, their parents, teachers and the community, using arts and craft-based projects to create positive experiences of maths. We continue to draw on extensive research which documents the positive impact of parental involvement in children's learning, and we have deliberately partnered with schools and community organisations in order to attract people with a range of backgrounds.

A highlight of the year has been our partnership with the London Borough of Camden, which has enabled us to bring our event, the 'Festival of Triangles', to over 200 people in a major London borough. This opportunity enabled us to develop the event to run successfully in a range of community settings, and start building what we hope will be long-standing relationships with Camden organisations and residents.

Only **62%** of parents signing into one of our Camden events said when asked about their feelings towards maths that they 'Love it – wish I did more'. The others were either neutral, actively avoided maths, or didn't answer.

91% of parents who completed a feedback card at the end of an event said they had enjoyed it. When asked if the activities had been related to maths, **94%** of parents answered 'Yes' or gave a 4 or 5 rating.

When asked about 'one thing you intend to do as a result from attending Festival of Triangles', over **65%** stated that they planned to carry out similar activities at home, talk about maths with their children or help their children to learn more about maths, in a variety of ways. Their ideas included:

'Do more at home ... will try to do other things with straws not only triangles.'

'Continue with fun maths activities with my children.'

'Bring more fun to my two year olds maths.'

We are enormously proud of our achievements so far – but we know there is still a lot more to do. This report will tell you more about our work this year.

Making maths fun – for more people, in more ways

Maths on Toast runs events and activities for children, mainly aged between 5 and 12, and their families. We develop our activities through collaboration with mathematicians, artists, designers and the public, and deliver them in community contexts, such as schools, community centres, museums and libraries. We aim to reach broad audiences from a range of backgrounds, working with our partners within schools, museums and community organisations to achieve this diversity.

In 2013-14, we have broadened and developed our activities through a number of channels.

We have **taken our activities to new communities**. Our funding from the London Borough of Camden enabled us to take the Festival of Triangles on tour around Camden, culminating in a finale event. In doing so we were able to work with seven community-based organisations, who supported us in engaging with those communities. By working with schools as part of our marketing process (through Camden's Family Learning Team) we engaged parents who might not otherwise have attended the event. This included parents for whom English is a second language, in particular a group of families from one school who came to an event together.



The Mayor of Camden learns about triangles with visitors, Kentish Town Community Centre, August 2014



The Festival of Triangles tour poster

We have *run a wider variety of events*. We developed a series of activities on 'Cracking Codes' for HMS Belfast (part of the Imperial War Museums), which ran during the February 2014 half term and on two additional weekends in June and July.

We have *broadened our audience* beyond our initial primary school target age group. Our main focus remains children aged 5-12 and their families, but our visitors have told us that their younger siblings would like to get involved as well! With the support of the London Borough of Camden, we ran a pilot event for Under Fives at the Holborn Community Association in July 2014, where visitors participated in a range of activities including maths-based potato printing and giant tangram floor play.



Piloting fun maths for under fives – Holborn Community Association, July 2014

Case study: London Borough of Camden

We were delighted to be awarded funding from the Innovation and Development Fund, which, for its third round of funding, sought *'new and different projects that help build resilience, both in individuals and communities.'* (London Borough of Camden, 2013). The Festival of Triangles visited seven community centres around the borough, attracting in excess of **223** visitors (calculated based on sign in numbers). We also held a preparatory family learning event, received tetrahedrons made by 60 children from a local school, and ran a triangles-based animation workshop with 8 children, making and animating shapes - the animations were shown at the Finale. Through these initiatives we were able to extend the reach of the Festival of Triangles beyond just the families who were able to attend an event.

Our intended outcomes for the tour were:

Camden residents enjoy the events; engage and persist with activities; realise the event was maths as well as fun; see maths as enjoyable and achievable.

Parents were asked whether they had enjoyed the activities, rating them from 1-5 with 5 being the highest. **91%** of respondents (43 out of 47 respondents in total) gave the activities a 4 or 5 rating. When asked to give a 'yes or no' answer to the same question, **95%** of children (35 out of 37 respondents in total) answered 'yes'.

'... my daughter did not want to come because she thought it would be boring but at the end she loved it.' (Parent)

'Thank you for teaching me maths. I loved making triangles.' (Visitor, aged 6)

Camden residents interact with others in the community whom they might not otherwise have met.

We invited visitors to provide postcode and ethnicity data. The data indicates that we attracted a diverse audience, from many ethnic backgrounds and different parts of the borough. When asked 'Did you meet and interact with new people?', **70%** of adults (33 out of 47 respondents in total) gave a 4 or 5 rating, and **65%** of children (24 out of 37 respondents in total) answered 'yes'.

Camden parents and children feel more inspired and able to explore maths ideas beyond the event itself, contributing in the long term to greater attainment.

We asked visitors what they intended to do as a result of the event - below are some examples of their responses.

'Try to find things at home (objects) to show my son geometric shapes and how they can be built.'

'Make more triangles and build bigger shapes with them.'

'Continue with fun maths activities with my children.'

And from one of our younger visitors: *'I will show this to mummy. If (we) have straws at home I will make some more.'*

Case study: Imperial War Museums – HMS Belfast

We were approached by the Imperial War Museums to develop a series of activities on the 'Secret Maths of Spies', to run during the February 2014 half term on HMS Belfast. Building on the success of the initial week of events, we further developed the activities to include a 'D-Day' theme, enabling HMS Belfast to run 'Cracking Codes' weekends in June and July. In total, **899** children and **488** adults participated in the activities over the course of 12 days.

'You learned something this weekend – bet you weren't expecting that!' (Father to his 7 year old son)

'Thanks @[mathsontost](https://www.mathsontost.org.uk) for a brilliant code-cracking workshop at HMS Belfast which my maths shy son and myself thought was ace.' (Twitter, 18th February 2014)

'Alexandra's session it is safe to say, is a hit with the team and the public ... Whenever I visited the teaching room was full and the visitors enthralled.' (Client feedback, Imperial War Museum)

Consolidating, evaluating and increasing our impact

As a relatively young organisation, we are constantly seeking ways to enhance our work, improve the way we do it and measure the impact of our activities and events.

Building our financial sustainability has been a key aim for us during our second year. We delivered the Festival of Triangles tour in Camden on time and within budget, allowing us to reach even more Camden residents through a series of additional activities during the coming year. This increased efficiency is in part due to the ‘bulk booking’ of several events which made our marketing and purchase of materials very efficient, and in part because, through delivering more events, we continue to improve our understanding of our costs and how they can be managed more effectively.


We have worked with a team of designers to **enhance the materials** used to deliver the Festival. We are re-launching the Festival to schools in autumn 2014, using our newly-designed ‘kit’. The updated kit is high quality, durable and easily-replicable, and will give schools all the materials they need to prepare for the Festival of Triangles, whilst enabling us to run a highly professional, effective event ‘on the day’.



Our triangular packaging, custom-designed for Maths on Toast

We aim to run events which will have **as broad an impact** as possible, by working towards outcomes which our audiences will genuinely value. There is a clear link between confidence and aptitude in maths, and **economic success and resilience**. However, we also seek to develop **social resilience**, by opening our events to families (who work together at our events to create positive memories of maths), communities (bringing together people who would not otherwise have met) and, in all cases, a diverse range of people.

Feedback is crucial in enabling us to measure our impact, develop our activities and continuously improve everything we do. We have enhanced our mechanisms for **collecting feedback** and **evaluating our events**, by introducing rapid feedback cards for both parents and children to complete (usually taking just a couple of minutes) as they leave an event. We have run pilot versions of our new events, engaging closely with our ‘testers’ of all ages to understand which activities are working well and which need further development before their official launch. And we continue to collaborate closely with our community partners to understand what will be most effective for their audiences, and what will inspire them to attend.

Yes	1. Poor 2. Fair 3. Average 4. Good 5. Excellent					1. Poor 2. Fair 3. Average 4. Good 5. Excellent
	Did you enjoy the activities ?					
						
Maybe	Time spent at event: _____ Age of child: _____					
No	Rapid Feedback Please TURN OVER					

Parents' instant feedback form, designed and used during the Festival of Triangles in Camden, summer 2014

Through all of the above, we have *sought to respond* to what our audiences have told us, allowing us to offer events which are enjoyable, innovative and meet the need for family-friendly, accessible maths based activities.

Building relationships, networks and partnerships

Our focus at Maths on Toast is on bringing maths to as broad and diverse an audience as possible, through easily accessible locations such as schools, community centres and libraries. Our work would not be possible without the support of a wide range of partners and funders, and we are hugely grateful to everyone who has helped us to get this far.

During our second year, we have formed, built and developed relationships with museums, educational institutions, funding bodies and a number of community organisations.

As detailed earlier in this report, our grant from the [London Borough of Camden](#) allowed us to take the Festival of Triangles on tour around the borough, which is the largest in London and home to residents from a vast range of backgrounds. We built relationships with community organisations including the [Holborn Community Association](#), [The Winch](#), [Pancras Square Library](#) and the [Pirate Castle](#), who, through providing venue space, assistance with logistics and marketing support, enabled us to reach diverse audiences, contribute towards strengthening community networks, and build resilience.

In awarding our grant, the London Borough of Camden invited us to ‘*create additional progression and partnership opportunities*’ to extend our work beyond the initial Festival of Triangles tour. We have further events planned for the spring of 2015 and we are hugely excited about continuing and deepening our relationships within the borough.

We have formed a collaboration with theatremaker Sarah Punshon to develop ‘We’re Stuck!’. Towards the end of our second year of operations, we received confirmation that the project would be partially funded by the [Ernest Cook Trust](#) and supported using public funding by the [National Lottery through Arts Council England](#).

We have begun exploring ways in which we can partner with museums to highlight the maths stories contained in the collections, experiences and activities they already offer. As detailed earlier in this report, our collaboration with the [Imperial War Museums](#) and [HMS Belfast](#) brought our code-cracking activities to nearly 1,400 participants. As our second year drew to a close, we began developing a programme of family learning events to be run during the autumn of 2014 at the recently refurbished [Bletchley Park](#) museum.

We continue to build relationships with schools and other educational bodies. We see inherited, negative attitudes towards maths as one of the key barriers to improving numeracy in the UK – which is why our events are targeted at parents as well as their children. Continuing the theme of increasing adult confidence in maths, our Creative

Producer, Alexandra Fitzsimmons, was filmed as part of a short video for students, and supported a training day, at [Westminster Kingsway College](#) in London.

Finally, as we have extended our reach to an increasingly broad audience, we have raised our profile within the mathematics world, and our networks with other organisations seeking to develop numeracy and confidence in maths within the UK. By way of just one example, we continue to work with [National Numeracy](#). Alexandra sits on the panel of National Numeracy's [Parental Engagement Expert Group](#), which aims to share experience and expertise relevant to strengthening parental engagement in children's maths learning - and is therefore very closely aligned to Maths on Toast's objectives and plans.

Coming up! Our plans for 2014-15

A huge amount of activity is underway at Maths on Toast as we plan and start to deliver our activities for 2014-15. We are hoping to further extend our audiences, especially within primary schools, develop a major new event to run alongside the Festival of Triangles, and continue several exciting partnerships.

We're Stuck! (running in the autumn of 2014) has been developed in collaboration with theatre-maker Sarah Punshon, who has brought together a games designer and team of performers to create something for the whole family to enjoy. Mathematicians get stuck all the time. We're Stuck! aims to explore how they deal with that and push on through to make new and exciting discoveries.

Our activities at **Bletchley Park** (running in the autumn of 2014) are designed to bring families together in a historical (and very mathematical) setting to explore triangles, codes and games.

We are aiming to bring the Festival of Triangles to **8 London schools** in 2014-15, significantly increasing that number in 2015-16. Our brand new 'kit' is ready to go and we are in the process of marketing the event, building on the connections we have already built with schools in Camden and other London boroughs.

We are seeking funding to develop our next activity, which will focus on **multiplication**. This is a core area of numeracy and one in which our audiences are already engaged - we have been asked by parents, teachers and our existing community partners in Camden to focus on this topic.

'Times tables – parents are always looking for support in times tables.' Teacher, 2013

The project will seek to deepen and broaden family engagement with multiplication and times tables, turning them into a meaningful and enjoyable experience.

Finally, and perhaps most importantly – we know that to be in a position to continue our work, we need to strive to be as **efficient and financially sustainable** as possible. We will continue to seek to use our resources as effectively as possible, and ensure that we are focusing our efforts in a way which will enable us to have maximum impact. In two years, Maths on Toast has grown from nothing to where we are today, with no 'core funding' - we have received income through trade and through grants for specific projects. However, we recognise that as our activity increases, so will the costs of running our organisation. We are actively exploring funding options which will give us the investment we need to continue growing.

2013-14: in facts and figures

People we reached

Between 1 September 2013 and 31 August 2014:

1,642 adults and children attended a Maths on Toast event

2,073 people visited our website, of which three quarters were new visitors

As of 31 August 2014, we had:

209 people on our mailing list

721 Twitter followers

50 Facebook friends – we're working on growing this number!

Finances

Our income for the year was approximately £17,000, mainly from grant funding, trading income and donations. Full details of our financial position will be contained in our accounts for the year ending 31 August 2014.

Volunteer time and support in kind

From 1 September 2013 to 31 August 2014, we benefited from nearly **64** days of volunteer time, including support with running and evaluating our events, design input and behind-the-scenes/administrative help.

Our **Trustee Board** grew from three to five members, as we welcomed Bhavini Pandya and Holly Marshall to Maths on Toast.

We received support from:

Volunteer Centre Camden: 2 half days of training and help with Trustee and volunteer recruitment

STEMnet: provision of some fantastic volunteers via the STEM Ambassadors network

The **Forward Foundation:** training sessions on a range of topics from Failure to Fundraising

NCVO: free attendance for our Creative Producer at 2014 Conference

National Numeracy: who helped to promote our events

The **School for Social Entrepreneurs:** who offered us room hire at a discounted rate for a marketing event.

We are very grateful to all of the people and organisations who have made our work possible.

Some final thoughts on our work this year

From our visitors:

'Please can I do another one?' Visitor at 'Cracking Codes', HMS Belfast, February 2014

'Building shapes out of straws was really fun - thanks for the fun activity.' Visitor at Festival of Triangles, August 2014

From some parents:

'Watching my children interact, experiment and create different shapes.' Parent at Festival of Triangles, August 2014 (when asked about their favourite memory of the event)

'It's easy once they see the pattern.' Parent at 'Cracking Codes', HMS Belfast, February 2014

And from our volunteers, when asked to comment on their best moments while helping at our summer 2014 events in Camden:

'3 brothers worked to build a bridge together. Seemed excited about it ... The slightly older kids knew what engineering was and were interested in the real applications.'

'Seeing a child persevere, with encouragement to complete the large structure and showing new understanding of how to create it. Also children saying "I like art this makes maths fun."'

Issued by the Board of Trustees, February 2015

Alison Clark-Wilson
Holly Marshall
Bhavini Pandya
Sophie Smith
Paul Wilmott

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Further information

If you would like further information about our activities, would like to enquire about running a Maths on Toast event within your organisation, or have any other queries or comments, please do not hesitate to contact us:

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