

Midlo[⚗]thian Science Fest[🧪]ival

Midlothian Science Festival 2014 EVALUATION REPORT



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Executive Summary

Midlothian Science Festival ran for the third time from 4th-19th October 2014.

The majority of funding was 'in-kind' in terms of venues and staff time, notably from Midlothian Libraries and the University of Edinburgh. The main cash funding was received from The Scottish Government Science Festivals funding, and the Wellcome Trust Institutional Strategic Support Fund. Our adult lecture programme was kindly sponsored by Councillor Jim Bryant. Other cash donations were received from partners including Midlothian Council Edinburgh College and Midlothian Tourism Forum.

Midlothian Science Festival is a registered charity SC044130 and Ltd company SC446006.

The Festival at a Glance

120+ public events including several gala days, Easter Bush Open Day, creative writing events, glow in the dark workshops and a science ceilidh.

Expanded adults programme of 30+ events including talks by scientists and authors, craft events, outdoor activities and a science tea party.

4 competitions - 2 in main programme: Rocket Blast and Molecule Hunt;
2 Homecoming Scotland: Sci-Ku (science Haiku) and Scoffing Scottish Science

30+ School events including workshops and shows

Over 8000 visitors attended events: 2905 in schools and 5251 at public events (4840 public excluding Homecoming Scotland Events).

Cash cost of approx. £26,500

Midlothian Science Festival has 3 directors / trustees, two of whom who gave over 100 hours of their time on organising and running the festival:

- Philip Wark, Library Services Manager, Midlothian Council
- Sarah Keer-Keer, Outreach and Communication Manager, Wellcome Trust Centre for Cell Biology, University of Edinburgh

Paid staff :

- Iona Beange, Half-time Festival Manager;
- Freelancers, Helen McLachlan (Reading Experiment), Neil McKenzie (activities and website), Lewis Hou (Science Ceilidh), Juliet Ridgway-Tait (Adults talks promotion)

2 further members joined the core committee on a regular basis – Library Manager Rachel Archibald and Public Engagement Professional Kathleen Pullen.

The Festival Committee were provided in-kind by their organisations including Midlothian Libraries, Midlothian Ranger Service, University of Edinburgh, Roslin Institute, Queen Margaret University (and many more)

Over 500 non-festival staff were involved in events.

- Approximately 282 staff from Higher and Further education institutions took part in the festival. Over 20 of these were STEM (Science Technology Engineering and Maths) Ambassadors.
- Staff from industry / businesses were involved 38 times.
- Midlothian Library staff were involved 65 times and Midlothian Rangers 8 times.
- 113 other staff /volunteers took part including youth volunteers from the volunteering centre and adult volunteers from local community groups.

17+ library staff contributed to events at all levels, from participating on organising committee, to organising their own local events.

30+ venues were involved, including libraries across Midlothian, Vogrie Country Park, Easter Bush, The Lasswade Centre and Rosslyn chapel.

Events

There were more than 120 public events at Midlothian Science festival including:

- 6 Gala days, including the Easter Bush Campus Open Day which attracted over 350 people and Lasswade Gala day (500 people).
- 31 library events
- 24 talks / lectures for adults
- 17+ events led by companies and providers such as McTaggart Scott, AOC Archaeology, Our Dynamic Earth & Computer Explorers.
- 9+ book / author events
- 11 outdoor events
- 2 music events
- 2 film events

And over 30 school events:

- 17 workshops/shows in primary schools
- 15 workshops/shows in secondary schools

Partners

We have three tiers of partner, depending on the value of their contribution with principal partners giving the most value to the festival.

Principal partners

Midlothian Libraries
Wellcome Trust Centre for Cell Biology
The Scottish Government
The University of Edinburgh
Midlothian Council
Homecoming Scotland

Major partners

Edinburgh College	Royal Observatory Edinburgh Visitor Centre
Midlothian Ranger Service	The Physiological Society
Our Dynamic Earth	The Roslin Institute
Queen Margaret University	
Rosslyn Chapel	

Partners

AOC Archaeology	MacTaggart Scott
EAE Distribution	Midlothian Tourism Forum
Edinburgh Science Triangle	SCI-FUN: The Scottish Science and Technology Roadshow
GMP Print Solutions	Stewart Brewing
IKEA	
Lab in a Lorry	

Some of the other organisations and people who got involved

- Allie Reid (singer)
- Andy and Flora Munro
- Aubrey Manning
- Bagatelle
- Briony Curtis
- Castle Rock Edinvar
- Computer Xplorers
- Dad's Rock
- Dobbies Garden Centre
- Forest Families
- Glencorse Association
- Ken MacLeod
- Mhairi and Gary Stewart
- Michael Davenport
- Museum of Communication
- Moorflix community cinema
- National Mining Museum Scotland
- Newbattle Abbey College
- Nicolas Boyes (stone mason)
- Penicuik Community Arts Association
- Penicuik Community Development Trust and the Pen-Y-Coe Press
- Penicuik Estate Ranger Service
- Peter Clive, Sgurr Energy
- Pippa Goldschmidt
- Robokid, Heriot Watt University
- Royal College of Surgeons
- Simon Watt
- Stephanie Taylor (author)
- SRUC, Scotland's Rural College
- Volunteer Midlothian
- Waste Aware Team

II Evaluation Report

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Preface - Acknowledgements

i) Funders

See our principal, major and normal partners listed on page 4

ii) Festival organisation

Directors

Philip Wark (Chair), Library Services Manager, Midlothian Council.

Sarah Keer-Keer (Treasurer), Outreach and Communication Manager, Wellcome Trust Centre for Cell Biology, University of Edinburgh.

Fiona Maher, Melville Housing Association.

Festival Manager – Iona Beange

Organisations represented on Committee:

- Midlothian Libraries
- Midlothian Ranger Service
- University of Edinburgh - including Wellcome Trust Centre for Cell Biology, The Roslin Institute, The School of Biology, The School of Geosciences, Department of Psychology,
- Midlothian Council
- Queen Margaret University
- Glencorse Association
- EAE Distribution
- Edinburgh Science Triangle
- Museum of Communication

iii) Other Partners

See our partners list on page 4

1 Introduction

1.1 Background

The Midlothian Science Festival began in 2012 with around 30 events organised in just 4 months. The focus was on bringing science to the local area, with libraries playing a key role as venues and hosts.

In 2013 Midlothian Science Festival became a registered charity (charity number SCO44130) and a company limited by guarantee (Company number SC446006). We held around 70 events and over 6000 people attended.

The 2014 Midlothian Science Festival was held from 4th-19th October 2014. There were over 120 public events, and 30 workshops/shows in schools. A major focus was the extension of our adults programme to include 24 lectures / talks, including a keynote lecture by Aubrey Manning. This was sponsored by Councillor Jim Bryant.

Plans are already in place for the 2015 festival which will run 3th-18th Oct 2015, celebrating International Year of Light amongst other themes.

1.2 Strategy

Midlothian residents are surrounded by cutting edge science and technology, however the science industry is disconnected from the local community, who often feel distrustful of science and scientists.

Furthermore, most of the excellent and interesting science and technology jobs do not go to Midlothian residents – in fact these jobs seem invisible to Midlothian residents. Within schools there is not a culture of aspiration towards these local jobs and careers.

Midlothian faces a number of social and economic challenges including low wages, youth unemployment and a low number of school leavers entering higher education.

With this festival, we aim to:

- Build relationships and trust between local science industries and local communities
- Encourage people to look towards these science industries as places of potential employment
- Encourage communities to understand issues of controversy, empowering them towards active participation in issues that affect them and their community
- Raise the aspirations of local school children

1.3 Key Messages

- Science is **everywhere** and is for **everyone** – regardless of age or background
- Science and technology is a key part of **Midlothian’s cultural identity** and infuses into all areas including our natural and historic environment, our food and drink, our health care and sporting achievements, and our creative arts
- Midlothian has a **rich history** of science and technology and continues to be a **world leader** in this field
- There are lots of **career opportunities** within science, technology and engineering in Midlothian
- Our **local libraries** are key locations for accessing science resources throughout the year.

1.4 Aims and Objectives

- a. to run stimulating and enjoyable interactive science activities for a wide range of audiences in Midlothian;
- b. to provide a non-threatening entry point for local people from a varied demographic area (including rural and deprived areas) to engage with science;
- c. to showcase, in an engaging way, the current and historical science originating from Midlothian;
- d. to provide role models for careers in the form of festival staff, volunteers and presenters who work in STEM in the local area.
- e. To demonstrate Midlothian’s contribution and importance to science and technology at a global level and to broaden the horizons of future generations of scientists.

2 Content

2.1 Programme Structure

This year, Midlothian Science Festival had 2 main strands – public events and schools events. Our public events included a dedicated adult’s programme.

Midlothian Science Festival has a strong geographic focus and aims to bring science events to the doorstep of Midlothian residents. All of the events took place within the Midlothian Council area and as far as possible involved Midlothian or Lothian scientists and organisations.

The programme avoided prescriptive rules on event types or themes, aiming to be as inclusive as possible and promote involvement of local organisations.

2.2 Form of Interaction

Schools: There were over 30 school events, including 17 workshops / shows at primary schools, 15 at secondary schools.

There were over 120 public events at Midlothian Science festival including

6 gala days

- Easter Bush Campus Open Day – 389 visitors
- Mayfield Library – 175 visitors
- Science in the Glen, Roslin Glen - 300 visitors
- Science Alive Gala Day (families) and Science Tea Party (adults) Lasswade High School Centre - 501 visitors
- Danderhall Library - 85 visitors
- Glencorse Centre – 237 visitors

30 library events – including:

- Lava lab at Dalkeith Library
- DNA extraction and fluorescence at Danderhall Library
- Fun science activities at Gorebridge Library
- Experimental at Lasswade Library
- Bubble madness at Loanhead Library
- All things bubbles at Mayfield Library
- Science of magic at Newtongrange Library
- Forensics experiments at Penicuik Library

12 outdoor events – including:

- Dens and campfire cooking at Vogrie Country Park
- Woodland Wonders at Newbattle Abbey College
- Bat Walk at Penicuik House
- Botanical Walk at Roslin Glen

25 talks for adults - including

- Mindfulness for depression
- Life and the earth (Aubrey Manning)
- We'd eat GM Meat
- The social brain (autism)
- Turing Test – Man or Machine
- Science of sound at Rosslyn Chapel
- Art of Brewing: yeast and fermentation with Stewart Brewing

9 book related events including:

- Book Clubs in association with Wellcome Trust Centre for Cell Biology.
- Science in Science Fiction with Ken MacLeod
- Graphic Science Stories

- Author talk by Pippa Goldschmidt

4 Competitions:

- Blast off – build and launch a water rocket
- Molecule hunt around Dobbies Garden Centre
- Sci-Ku (science haiku) Competition [Homecoming Scotland]
- Scoffing Scottish Science (photo) [Homecoming Scotland]

Several events led by commercial companies for example

- A history of engineering in Midlothian with MacTaggart Scott
- Go potty for archaeology with AOC Archaeology

2.3 External Venues

More than 30 different venues housed events for Midlothian Science Festival. These included: (* indicates new venue for 2014 festival)

Libraries:

- | | |
|----------------------|------------------------|
| • Dalkeith Library | • Mayfield Library |
| • Danderhall Library | • Newtongrange Library |
| • Gorebridge Library | • Penicuik Library |
| • Lasswade Centre | • Roslin Library |
| • Loanhead Library | |

Higher and Further Education Buildings

- | | |
|----------------------------------------|---------------------------|
| • Easter Bush Campus* | • Newbattle Abbey College |
| • Edinburgh College, (Dalkeith Campus) | • The Roslin Institute |
| • Langhill Farm | |

Business Premises

- | | |
|--------------------------|-------------------|
| • Dobbies Garden Centre* | • The Steading * |
| • IKEA Edinburgh | • Stewart Brewing |
| • Lasswade Papermill* | |

Outdoors

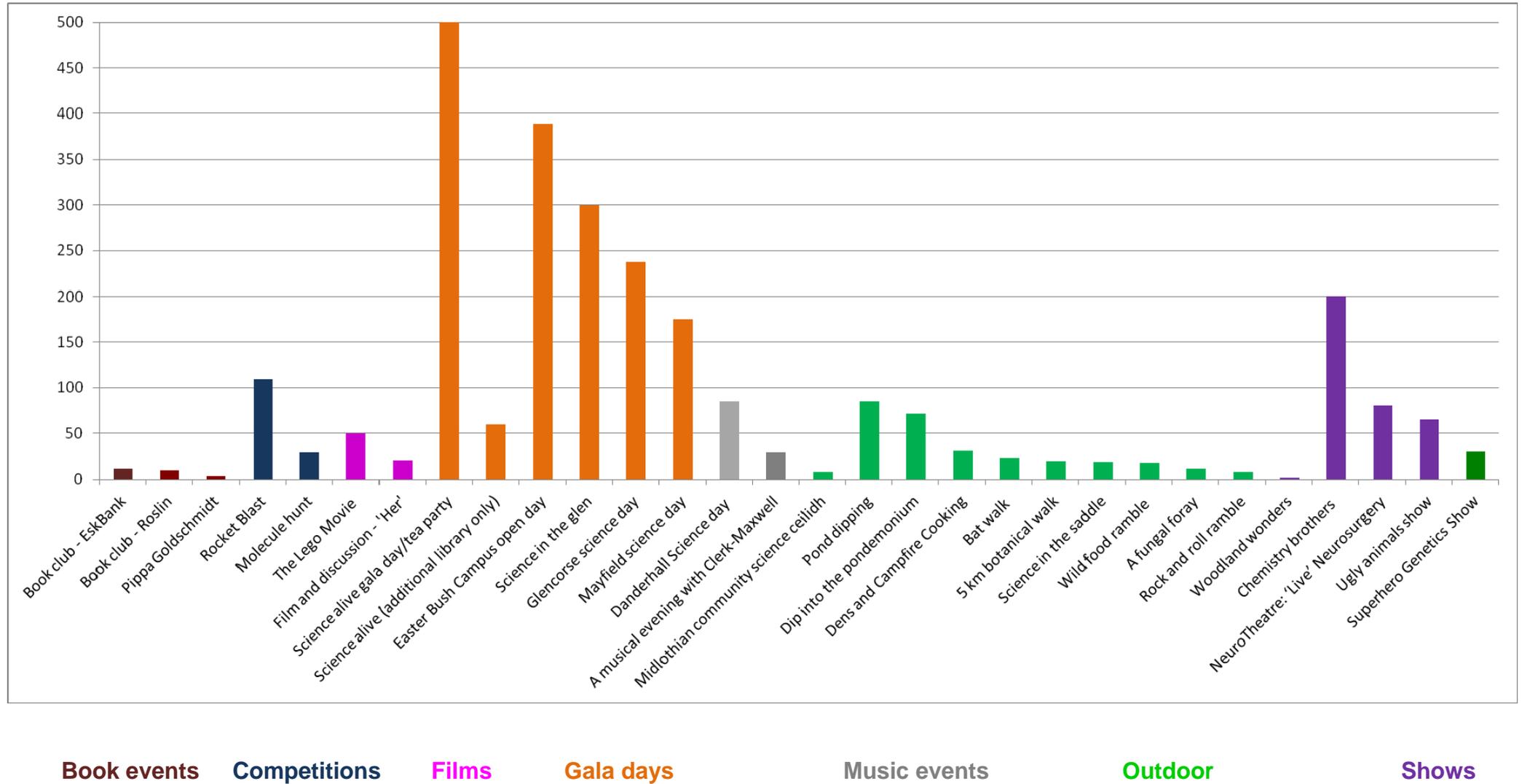
- Roslin Glen Country Park
- Springfield Mill Nature Reserve
- Vogrie Country Park

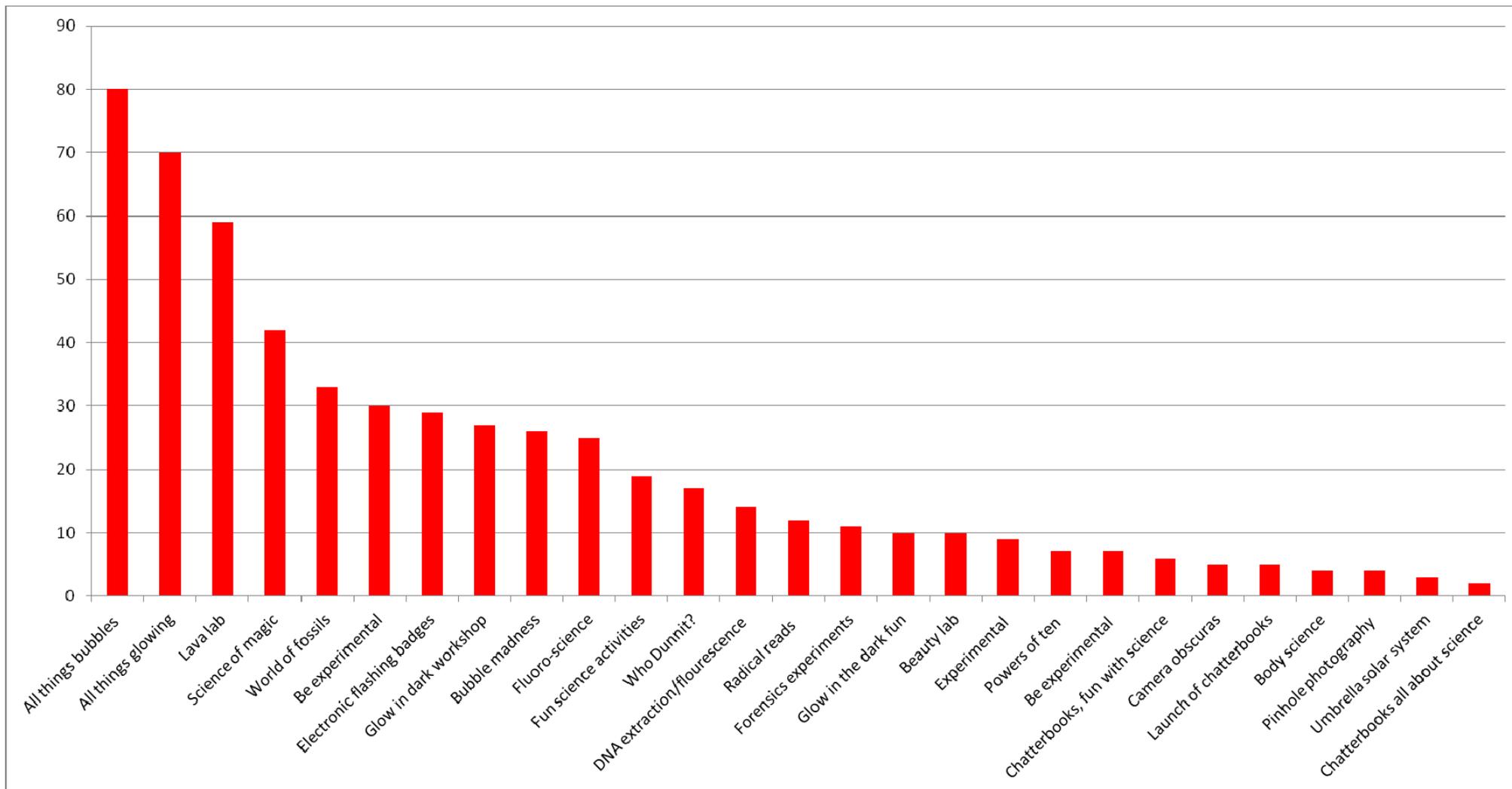
Other

Crystallmount and Heinsberg House sheltered housing*	Private individuals' houses (Book Groups)
Glencorse Centre*	Roslyn Chapel
Penicuik House*	Temple Village Hall, Temple West Street Arts Centre,
Penicuik Town Hall* [Homecoming Scotland]	Penicuik *

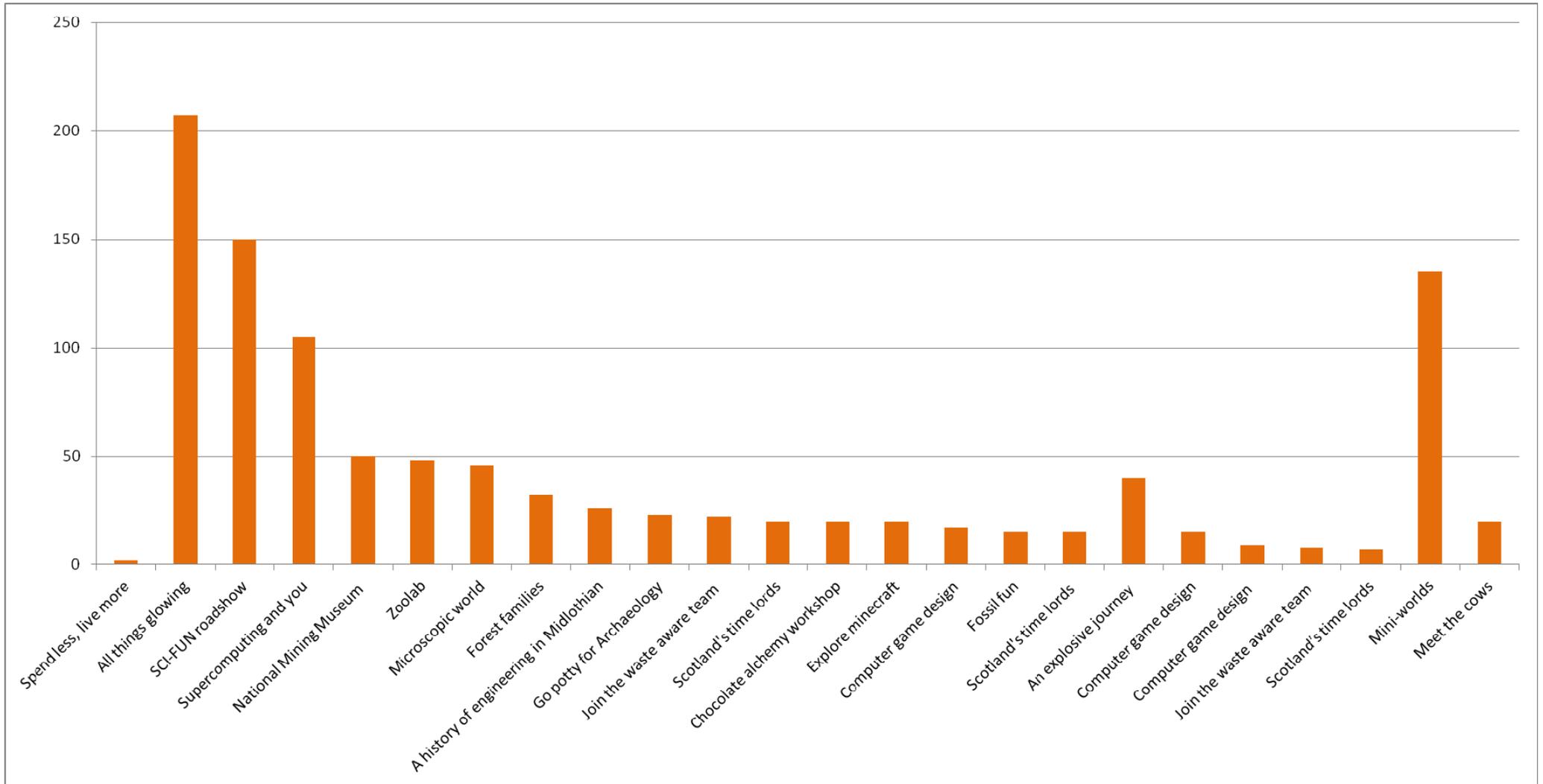
1. Audience Participation

Figure 1 – Audience Numbers, graph split across 5 pages (see Appendix 1 for Table of figures, numbers as reported by event co-ordinators)

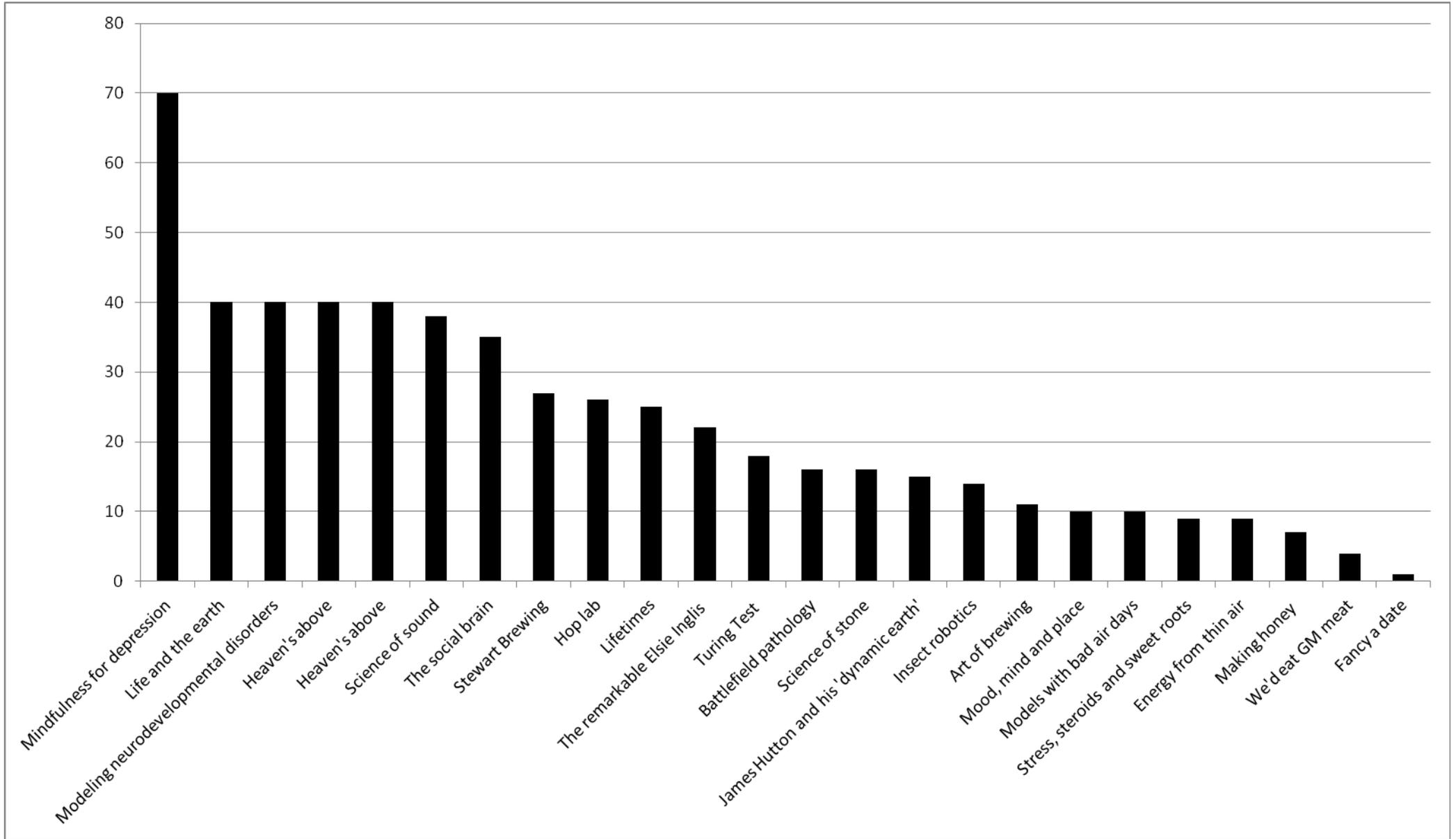




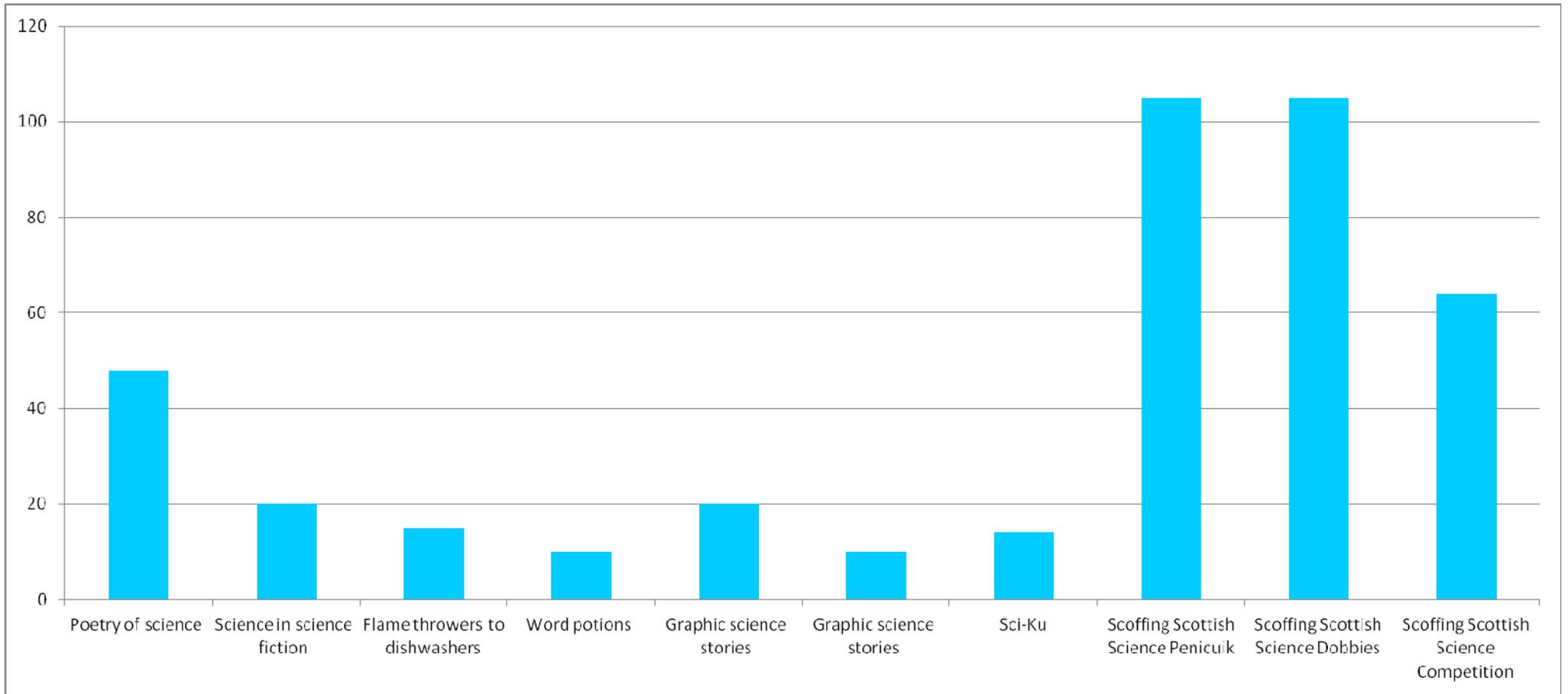
Library Events



Providers (companies, universities, colleges etc)



Talks / lectures



Homecoming Scotland Events (additional funding)

Over 8000 visitors attended events (2905 schools, 5251 public [4840 public events excluding Homecoming Scotland Events]). Public attendance rose by over 1000 people from 2013.

The events that attracted the largest audiences were the family drop-in days, where children and families could participate in interactive hands-on science activities with real scientists/students. These events were free and ran for several hours:

- Science Alive gala day and Tea Party – 501 visitors (with an additional 60 who attended the stands in Lasswade library only)
- Easter Bush Campus Open Day – 389 visitors
- Science in the Glen – 300 visitors
- Glencorse gala day – 237 visitors
- Mayfield gala day – 175 visitors

The shows that take place during the gala days were also very popular. These included Ugly Animals Show by Simon Watt at the Easter Bush Campus open day; Chemistry Brothers and NeuroTheatre at the Science alive gala day.

Other very popular events were:

- All things glowing at IKEA, Edinburgh – 207 visitors
- SCI-FUN roadshow – 150 visitors
- Dobbies mini-worlds – 135 visitors

Surprisingly high numbers were observed at IKEA and Dobbies. Families are used to visiting these venues and the opportunity to combine a festival event with shopping seemed to be appealing. These venues also have large car-parks and other facilities for families (café, play area etc).

Outdoor activities continue to be popular.

The two variants of pond dipping at Vogrie Country Park attracted high audience numbers. Science in the Saddle sold out, as did the Bat Walk.

However, bad weather saw just two brave souls turn up for the Woodland wonders under 5's walk.

The events designed and run by the librarians themselves are to be commended and attracted over 500 people in total. These worked particularly well when the librarians took ownership of the design, running and advertising of the event. The highest numbers of participants were achieved at All things bubbles at Mayfield Library and Lava lab at Dalkeith library. However, numbers only tell half the story, and challenges around staffing made things particularly difficult for some libraries this year.

2014 saw a great expansion in our adults talks programme thanks in part to a cash donation by Councillor Jim Bryant. The most popular talk was Mindfulness for depression, which attracted people from as far afield as Glasgow and Durham! Other popular talks included Life and the earth by Aubrey Manning and Science of Sound at Rosslyn Chapel. Heaven's above returned for a second year, this time with BSL interpretation and continues to be popular. A surprising hit was The Social Brain (autism) talk at IKEA, Edinburgh. There seems to be an appetite for mental health related talks and events within Midlothian.

22 events were run by outside providers ranging from local companies to professional science communicators.

- Supercomputing and you attracted 105 people to Gorebridge Library. Many of these were from local primary schools, who were specifically invited by the Gorebridge Librarian.
- A history of Engineering in Midlothian was a talk by McTaggart Scott which attracted 26 people, which was as many as the library could hold!
- Go potty for archaeology with AOC Archaeology attracted 23 people which was a good number for the space available in Loanhead Library.
- Our Dynamic Earth ran their Scotland's time lords event at several venues, as well as at the Gala days. Some of their later events were cancelled, as it seemed they had saturated the interested audience by that point.
- Computer Xplorers planned to run 6 workshops. The Minecraft one was fully booked. However, 2 other workshops had to be cancelled. It is unclear what exactly caused this.

The rocket blast (water rocket) competition was popular again this year, attracting over 100 entries. The molecule hunt at Dobbies Garden Centre attracted 29 completed entries, though more people took part, but did not hand in the form.

This year we received additional funding for two sets of Homecoming Scotland Events

a) The Reading Experiment (with Edinburgh [lead] and Dunbar Science Festivals)
From the central resources created by the lead group, the main resources we used were the postcards and the Sci-Ku competition, though these and the other resources were perhaps not best suited to our region and festival. The Sci-Ku competition attracted 14 entries. We also organised 5 reading based events for adults and children with our portion of the event budget. These were moderately successful, in particular the Science in Science Fiction event and the Science in Poetry event. These were supported well by their venue library and had good stake-holder involvement.

b) Scoffing Scottish Science (with Dundee and Orkney Science Festival)
Midlothian Science Festival was the lead festival on this project. The gala event in Penicuik Town Hall featured food and drink researchers, alongside local companies and attracted 105 people. The insect snacks and cakes brought along by the Bugs for Life were very popular! The second gala event was in Dobbies Garden Centre where 105 people engaged with food and drink researchers. The play with your food photo competition attracted 64 Midlothian entries. In addition several thousand beer mats (featuring food science activities and facts) were distributed to bars and cafes around Midlothian.

Due to the expansion in the programme, many more events overlapped this year. Timetabling procedures will be reviewed for 2015.

In order to increase attendance at all events, we will continue to review our promotions and advertising procedures (see section below).

3.2 Schools Programme

30 Events were held for Primary and Secondary School pupils as part of Midlothian Science Festival. This added 2905 young people to our festival numbers. This represents a rise of over 1000 pupils since last year's festival.

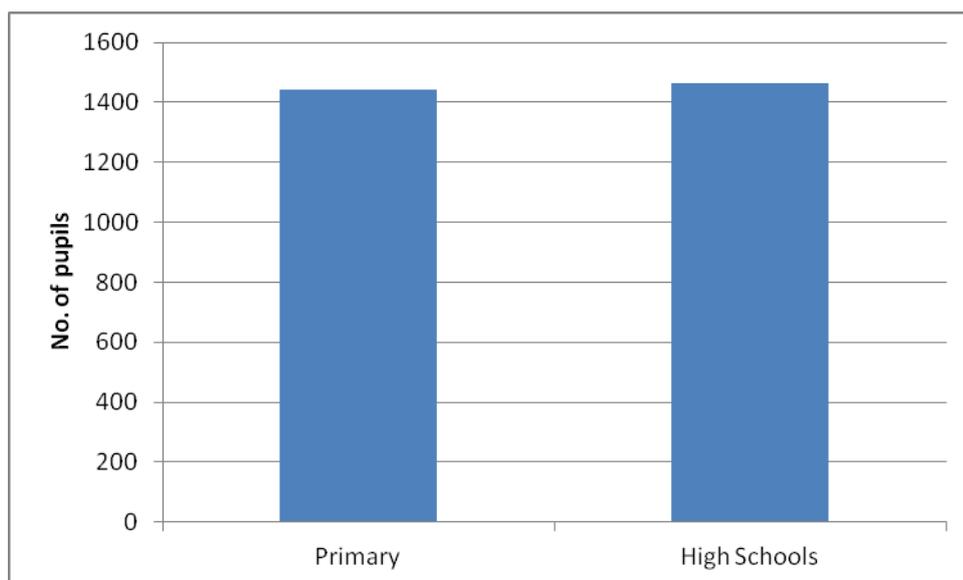
The majority of the school visits were carried out by existing workshop providers within Edinburgh, whom we encouraged to attend Midlothian Schools during the festival period. This ensured the events we provided were of high quality. This is a strategy we intend to repeat in future years. Workshops ranged from Chocolate Alchemy with School of Chemistry, University of Edinburgh, to Scotland's Time Lords with Our Dynamic Earth. A full list can be found in appendix 2.

Simon Watt (TV personality and professional science communicator) was paid to provide Ugly animals and Superhero Genetics shows to 772 primary and secondary school pupils. Lewis Hou (local science communicator) was paid to provide Fiddling in the Brain workshops to 605 primary and secondary school pupils.

This was a difficult year for Midlothian secondary schools with the loss of the 'Subject Head' positions (i.e. there is no longer a head teacher for biology, chemistry, physics etc, instead one Head of Science has been appointed to cover all of these responsibilities). This requires a period of adjustment.

Feedback suggests that secondary schools would like workshop planning to occur earlier in the year (before Easter), but that primary schools are happier with a later planning schedule (June or August).

Figure 2 - Number of attendees in Schools Programme
(see appendix 2 for table of figures)



Economic Impacts

Table 1 - Total [cash] Cost of Staging the Festival

Expenditure 2014 festival

Iona Beange, festival development	£9,560.00
Helen McLachlan Great big Science Read project	£2,105.77
Neil Mackenzie freelance organising , delivery & website	£252.00
Neil Mackenzie freelance website	£180.00
Neil Mackenzie freelance organising & delivery	£360.00
Lewis Hou deliver science ceilidh to schools and public	£450.00
Lewis Hou science busking with Scout groups	£150.00
Hire of Simon Watt for schools	£1,000.00
Hire of Simon Watt for Roslin Open Day	£450.00
Contribution to SCI_FUN for event costs	£250.00
Juliette Ridgway-Tait talks for adults project	£675.00
Catering for speakers nights	£850.00
Photography of events	£450.00
labels printing	£90.00
Midfest fee	£20.00
GMP design brochure	£768.00
GMP Brochure printing and design	£2,490.00
GMP Design and print posters	£358.00
Midlothian News advertising insert	£800.00
MSF balloons 300 and helium and string	£201.68
EAE distribution	£324.48
Rocket launcher consumables	£45.83
cake cases	£6.97
Helium	£11.00
microscope bulbs	£8.04
Molymod models	£85.90
Molymod models	£20.00
Chemistry of the cupcake (awaiting new invoice)	£150.00
Library event consumables	£27.49
UV light Consumables	£190.88
Van hire	£369.90
other van hire for posterboards	£74.54
volunteer bus travel tickets	£126.00
Sarah Mileage	£99.00
Mileage Kathleen	£45.45
Computer Xplorers	£559.00
Feather Flags	£812.40
flag bases	£72.00
Science in the Glen day marquee hire	£800.00
van hire for Rocketers	£200.00

van hire for Rocketers	£25.00
purchase weighing scales x4	£20.00
website costs	£527.50
Protozoa for microscopes shows	£22.50
Materials for Lasswade High School	£125.00
Volunteer food and drink	£99.88
Volunteer food and drink	£29.00
Gloss paint	£13.98
Bicycle pump for rockets	£13.00
Maggots mixed	£6.55
Platform trolley	£27.00
Folding trolley	£25.19
Electrical extension leads	£80.97
TOTAL expenditure	£26,504.90

Please note, the majority of our costs were met 'in-kind' by partners.

4.2 Table 2 - Total Income for Festival

Income 2014 festival

Wellcome Trust-ISSF grant	£9,560.00
Midlothian Tourism Forum	£1,000.00
Support For Midlothian Science Festival from Midlothian council economic development	£1,000.00
Midlothian Council, Councillor O'Brien money for speaker event	£2,000.00
Homecoming Scotland (part grant, Great Big Science Read)	£2,000.00
Scottish Government Science Festival Funding	£10,000.00
Support from Edinburgh College	£1,000.00
TOTAL incoming	£26,560.00
Total outgoing	£26,504.90
Balance brought forward	£55.10

4.3 How the Scottish Government Grant was Allocated

Table 3 - Allocation of Scottish Government Grant

Expense	% allocated to Scottish Government Grant	Total Cost	Total Cost Allocated to Scottish Government Grant
GMP design festival brochure	100	£550.00	£550.00
GMP festival brochure printing	100	£2,239.00	£2,239.00
GMP Design and print posters	100	£400.00	£400.00
Midlothian News advertising insert	100	£800.00	£800.00
MSF balloons 300	100	£319.88	£319.88
EAE distribution	100	£150.00	£150.00
Neil Mackenzie freelance organising , delivery & website	100	£252.00	£252.00
Neil Mackenzie freelance website	100	£180.00	£180.00
Neil Mackenzie freelance organising & delivery	100	£360.00	£360.00
Lewis Hou freelance deliver science ceilidh to schools and public	100	£350.00	£350.00
Lewis Hou freelance science busking with scouts groups	100	£150.00	£150.00
Hire of Simon Watt for schools	100	£1,000.00	£1,000.00
Hire of SCI_FUN (this is a contribution , not full cost)	100	£200.00	£200.00
Photography of events	100	£450.00	£450.00
Mileage 1	100	£99.00	£99.00
Mileage 2	100	£45.45	£45.45
Van hire for volunteers and equipment	100	£369.90	£369.90
van hire for Rocketers	100	£225.00	£225.00
Volunteers - bus tickets	100	£126.00	£126.00
Molymod models	100	£85.90	£85.90
Molymod models	100	£20.00	£20.00
Science in the Glen day marquee hire	100	£800.00	£800.00
Website costs	100	£527.00	£527.00
contribution to materials for Lasswade High School	100	£125.00	£125.00
UV light Consumables	92.5	£190.88	£176.56
TOTAL expenditure		£10,015.01	£10,000.69

NB: Finances for Homecoming Scotland Events are detailed in separate reports, as these projects were joint between multiple festivals.

4.4 Content Provision

Almost all of our events were provided by project partners or local organisations. The only 'external' paid providers for our public events were 'Simon Watt' and ComputerXplorers.

In our schools programme, schools visits were donated in-kind to the festival with the exception of the shows done by TV presenter Simon Watt and the Fiddling in the brain workshops presented by local freelance science communicator Lewis Hou.

4.5 Total Number of Paid Staff

The main member of staff was Iona Beange, half-time Festival Manager.

Freelance staff were also employed for a small number of hours to assist with specific tasks: Helen McLachlan (The Reading Experiment and publicity), Neil McKenzie (website content, and activity development), Lewis Hou (Science Ceilidh and Fiddling in the Brain School Workshop) and Juliet Ridgway-Tait (adult talks programme)

4.3 Committee members were provided in-kind by their organisations including:

3 Public Engagement Professionals worked over 100 hours each on organising and running events for the festival. Their time was donated in kind by the University of Edinburgh and The Roslin Institute

2 members of staff from Midlothian Libraries worked over 50 hours each on organising and running events. Several other members of Midlothian Council spent time on the committee and assisted with organisational aspects such as schools liaison.

2 Senior Rangers from Vogrie Country Park organised a significant number of events and contributed to the committee

Several companies are represented on the committee including EAE and Edinburgh Science Triangle.

Table 4 Total number of Staff / volunteers

Library	65
Industry/business	38
Higher/further Education	282
Rangers	8
Other	113

NB: Figures based upon co-ordinator evaluation forms which were not completed at all events. The same member of staff may be counted more than once in the above graph if they attended more than one event.

Over 500 people were involved in the delivery of festival events. The majority of the volunteers (282) were researchers and students from Higher / Further Education Institutions especially University of Edinburgh, The Roslin Institute and Queen Margaret University.

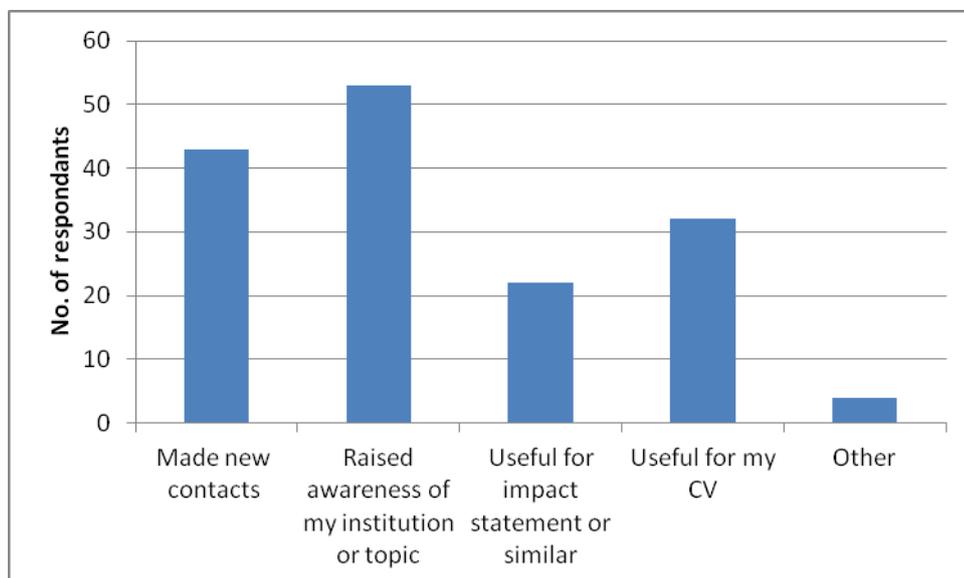
'Other (113)' included staff from the venues / specific event providers (eg writers, authors, workshop leaders etc. Volunteer Midlothian also provided young volunteers for an event. 55 of the volunteers in the 'other' category represent community organisations who were involved with Science in the Glen.

A large number of library staff (65) took part in festival events, alongside some staff from local Industry (38) eg AOC Archaeology, McTaggart Scott Engineering and businesses e.g. Our Dynamic Earth.

Young volunteers (aged 14-20) from the Transform Project run by Volunteer Midlothian assisted with a number of Science Festival events across two days. 8 young people helped with a variety of workshops at two of the venues - Crystallmount Sheltered Housing in Dalkeith and Danderhall Library

At least 23 of volunteers / staff were STEM Ambassadors. Midlothian Rangers were involved 8 times.

Figure 3 – How the festival has assisted the staff / volunteers



154 staff / volunteers responded regarding how the festival had assisted them. Many had made new contacts or raised awareness of their topic / institution:

- “Helped me develop activities for younger people.”
- “Put my degree knowledge to good use.”
- “Good experience”
- “Personal development”

5. Evaluation

Aims and Objectives

- a. to run stimulating and enjoyable interactive science activities for a wide range of audiences in Midlothian;
- b. to provide a non-threatening entry point for local people from a varied demographic area (including rural and deprived areas) to engage with science;
- c. to showcase, in an engaging way, the current and historical science originating from Midlothian;
- d. to provide role models for careers in the form of festival staff, volunteers and presenters who work in STEM in the local area, and
- e. to demonstrate Midlothian's contribution and importance to science and technology at a global level and to broaden the horizons of future generations of scientists.

5.1 Measures of Success

1. Run enjoyable events (objective a)

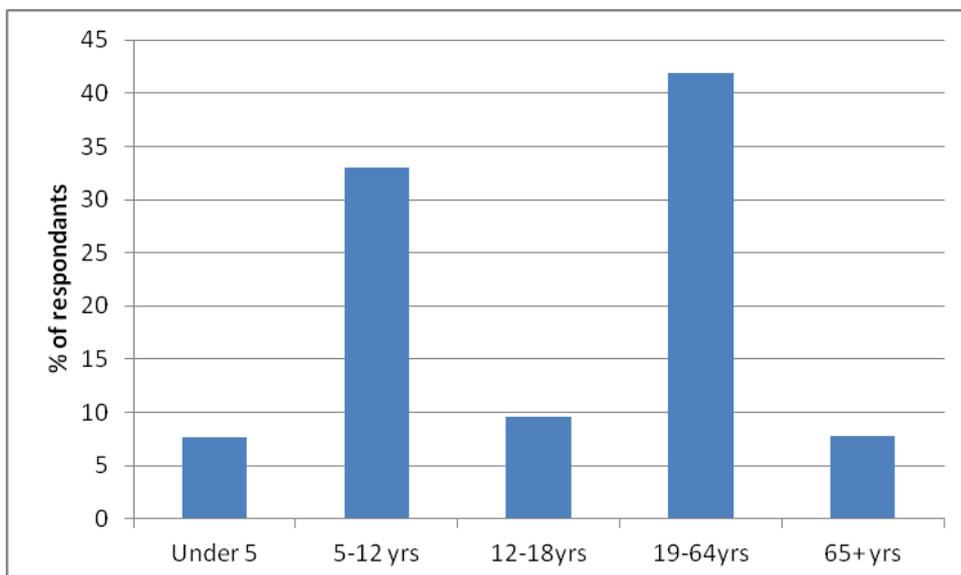
The evaluation data indicated a high level of enjoyment and satisfaction with the events (see appendix 3). Almost all events scored an average of between 4 and 5 (out of 5).

Thank you to all event providers for running such enjoyable events.

2. Engage a wide range of audiences (objective a)

The evaluation data suggests that we are engaging with a wide range of ages.

Figure 4 – Public events - visitor age distribution



NB: The data in this chart is from the evaluation forms, which only 30% of visitors completed.

Table 5 - Audience Distribution

Age in years				
Under 5	5-12	12-18	19-64	65+
8%	33%	9%	42%	8%

The age distribution (based on evaluation data) is largely as expected.

We have two main groups that typically attended our events;

- a) Family groups with adults and primary school age children attending together;
- b) Adults for our adults programme.

The graph shows a gap in the 12-18 year old category. This age group are difficult to attract to public events, however, they were targeted directly with our secondary schools programme and a couple of specific events (eg Beauty Lab)

Another gap is seen in the Under 5's category. We had just one event specifically targeting this age group (Woodland Wonders), although they were welcome to attend other all age events.

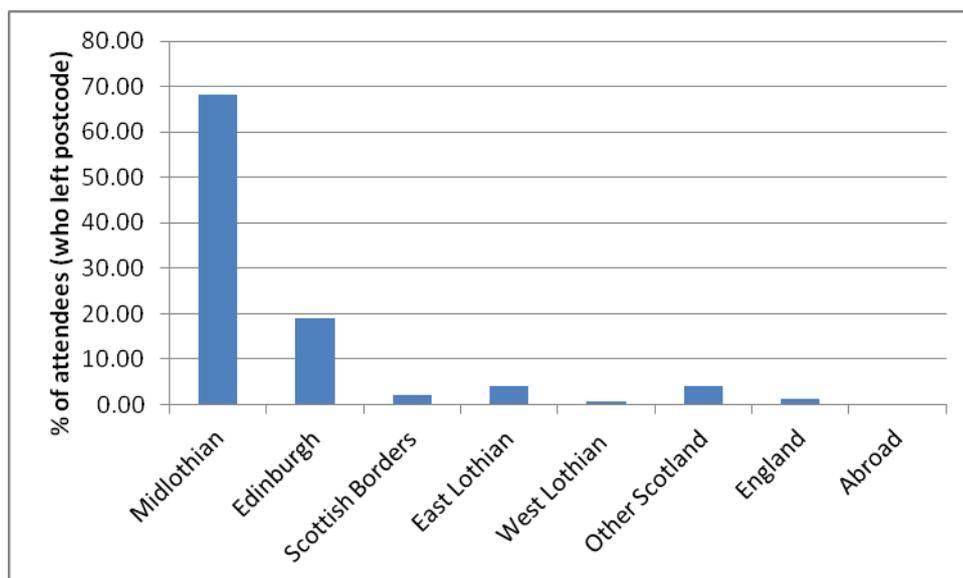
The figures show just 8% of our audience were in the 65+ age group. This year we trialled two events at sheltered housing complexes (Microscopic World and Mobility, mood and place [closed event for residents]). These were very well received and set a model for 2015.

| In 2015 it may be worth considering targeting events specifically towards under 5's and 12-18 year olds.

Our schools programme also had an even distribution across Primary and Secondary schools (1443 primary pupils and 1462 secondary pupils engaged with our school programme).

2. Engage a Local Audience (objective b), as well as day-trippers and holidaymakers.

Figure 5 - Percentage of audience residing in each geographic area



NB: The data in this chart is based on 627 postcodes obtained via evaluation forms.

Table 6 - Breakdown of visitors by area

	Midlothian	Edinburgh	Scottish Borders	East Lothian	West Lothian	Other Scotland	Other UK	Abroad
%	67.8%	19.5%	2.1%	5.4%	0.6%	3.4%	1.1%	0.1%

In 2014 our focus remained predominantly on engaging the local Midlothian people. This goal was achieved, with 68% of public programme attendees residing in Midlothian. This is important for us, as nearby Edinburgh has a well-established Science Festival, which struggles to attract visitors from the Midlothian area.

However, we did make efforts to advertise events in neighbouring regions (Edinburgh, East and West Lothian, Borders), and indeed over a quarter of our audience came from these regions. These people may be classed as 'day-trippers'. The remaining 5% came from further afield and are likely to have been on holiday or visiting relatives in the area. The distribution across regions is very similar to that observed in 2013, thus we have not changed our demographic significantly this year.

Thus, we have demonstrated that running science events in Midlothian is a successful way to engage with both Midlothian residents and those visiting the area.

Most events had a mix of Midlothian and non-Midlothian residents attending. Gala days attracted a combination of Midlothian and non-Midlothian attendees. Gala days may be particularly attractive to 'day-trippers' as there is several hours of entertainment available.

It is interesting to note that the Easter Bush open Day and Science in the Glen events attracted more people from outside of the Midlothian area, than within it. These venues seem to be particularly attractive to day-trippers. However, the Easter Bush open day still attracted more Midlothian residents than in any previous year.

Table 7 – Breakdown of gala day attendees by area

	Easter Bush open day	Science in the Glen	Science Alive gala day (Lasswade)	Mayfield gala day	Glencorse gala day	Danderhall gala day
Midlothian	36%	33%	83%	76%	80%	92%
Non-Midlothian	64%	67%	17%	24%	20%	8%

3. Engage people from rural and deprived areas (objective b)

This year, for the first time, we collected postcode data with our evaluations. Not everyone provided an evaluation or a postcode, so there may be some inherent bias. We did struggle this year to get evaluation from participants attending library-run events, and this may have affected our data. We should aim to improve this next year.

Data was available on the database for 493 of the postcodes collected. Of those 23% (115) were classified as 'rural' according to the SIMD 2012 Postcode lookup. Thus, Midlothian Science Festival is engaging people from rural areas.

According to the Scottish Index of Multiple Deprivation (SIMD), Dalkeith is amongst the 10% most deprived areas in Scotland. We ran 11 public events in the Dalkeith area which engaged over 400 people. We also ran schools events in Dalkeith which engaged 358 primary school pupils and 300 high school pupils.

Similarly, Mayfield is amongst the 10% most health deprived areas in Scotland. We ran 8 public events in Mayfield, which were attended by over 400 people. Several of these included topics around health and wellbeing. Queen Margaret University also ran their workshop 'The human body and the food we eat' at St Luke's Primary School, Mayfield, where 60 pupils learnt about how the body functions and the effect different foods can have on health.

Using the SIMD 2012 Postcode lookup, 5.5% (27) of the evaluation postcodes fall into the category of 20% most deprived datazones in Scotland. However, there are only small areas of Midlothian that actually fall within the most deprived 20%. A larger proportion of the population are in the 2nd quintile (20%-<40%). Overall, 36% of Midlothian datazones are in 0-40% category. Our data shows that 21% (105) of our attendee postcodes are in the 0-40% category. Thus our figures are largely in line with the population figures for Midlothian. Since science festivals nationally have found it very difficult to attract people from this category, this is a good achievement, although there is still room for improvement.

4. Showcase current and historical science originating from Midlothian and demonstrate its importance at a global level (objective c and f)

Many of our events showcased current science originating from Midlothian and gave the public the opportunity to meet practising scientists and engineers with a world renowned reputation. The following is just a taster:

- Easter Bush open day – over 100 researchers, vets and staff from the University of Edinburgh were on hand to interact with the public.
- Several talks for adults e.g. Stress, steroids and sweet roots by Dr Karen Chapman from University of Edinburgh.
- Mindfulness for depression with researchers and clinicians from Neuroscience, University of Edinburgh.
- Fancy a date with AOC Archaeology of Loanhead.
- A history of engineering with MacTaggart Scott of Loanhead.
- Stewart Brewing – 2 talks, and a tour of their premises in Loanhead.

Some of our events showcased historical science originating from Midlothian e.g.:

- A musical evening with Clerk-Maxwell, who had family links to Penicuik.
- Rock and roll ramble with geologists from the University of Edinburgh.

Our schools programme also showcased current science and gave pupils the chance to meet practicing scientists e.g.:

- Café Sci junior with The Roslin Institute.
- Chocolate Alchemy (for International year of crystallography) with School of Chemistry, University of Edinburgh.
- Get Connected with Edinburgh Neuroscience, University of Edinburgh.

5. **Provide role models for careers in the form of festival staff, volunteers and presenters who work in STEM in the local area (objective d and f)**

Over 250 active scientists and engineers assisted with our public events, acting as role models as they presented their science to the public, for example:

Over 100 researchers and vets assisted at the Easter Bush open day. Volunteers from Industry and local business assisted with several events including people from IKEA, MacTaggart Scott and AOC Archaeology. Researchers from the Wellcome Trust Centre for Cell Biology assisted with events such as book groups and the Science Alive Gala day. 23 registered STEM Ambassadors assisted with events such as the Easter Bush open day and Meet the cows.

Furthermore, the majority of presenters involved in the schools programme were practising scientists or engineers from research institutions. By interacting directly with school pupils these researchers provided inspiration to future generations.

5.2 **Evaluation Comments**

Magical Moments Comments from Visitors

“That's me? That's what my cells look like? I never knew. That is amazing. Can I look again?” (sheltered housing resident's reaction to viewing her cheek cells under microscope). [Microscopic world at Crystallmount sheltered housing]

[what did you enjoy most?] “everything especially with BSL interpreters making info accessible for deaf people.” [*Heavens above*]

“Found talk very interesting. Inspired me to gen up on the subject.” [*Heavens above*]

“Next year can't come soon enough!”

Comments from event organisers

- “A woman brought a photo album of her 80th Birthday trip to Siccar Point - the subject of our talk!” [James Hutton and our dynamic earth]
- “Two of the boys just kept going at the end with the magnifying glasses, ruler and fingerprints and kept coming back with new 'evidence'. “ [Who dunnit]
- “We were particularly pleased that the autistic society contacted us to enquire about sending a group - a group of 19 attended with them much enjoying interacting.” [SCI-FUN]
- “A huge in-depth explanation of DNA by a very small boy!” [DNA extraction]
- “The young lad who forgot to eat his lunch because he was so excited, and persuaded his friends to come to the Gala Day instead of playing computer games - he brought his Mum and sister too!” [Danderhall gala day]
- “We had a lady visit from the Borders so that her younger son could participate in a Forest Families event in the same way as his older brother had when they (the family) had lived in the area.” [Forest families]
- “Many of the participants had travelled from other authorities. Many asked what they could do whilst children were involved in the game and were directed to Vogrie Country Park. A great way to promote the local facilities whilst associating the idea of science being fun to the children. “ [Explore Minecraft]
- “There were many ex-employees who seemed to really enjoy it. There was a lot of chat afterwards - great event for the community.” [History of engineering (McTaggart Scott talk)]
- “I was talking to a mum who came with her two children. They live in Portobello and had been to events in Lasswade, Dalkeith, Danderhall and Loanhead. It just shows the great impact the Science Festival has around Midlothian and further afield.” [Bubble madness]
- “A mother told me a few days after the event that she loved looking in on her daughter asleep in her bed and seeing the jar glowing in the dark beside her.” [Glow in dark]
- “Helped a lady to access the lift to get up to the talk. She had moved back to the area and had not attended a lecture before. She was planning more following this!” [Insect robotics]

Comments from Volunteers

“Some children went out of their way to further look at crystals on the computers”

“I will be attending further educational festivals when I can and getting a library card!”
[Danderhall gala day]

“Lots of people staying a LONG time. Numbers are useful, but local events like this lead to very long dwell times for visitors. Much evidence of that today.” [Mayfield gala day]

Selection of quotes from the evaluation forms

Adult events

“Congratulations to all involved, and particularly for the adult programme which was varied, interesting and successful.”

“Particular praise for the mindfulness event which engaged a very wide audience on difficult and sensitive topics perfectly, the Elsie Inglis talk at Mayfield which was extremely interesting and well presented in a cosy environment that suited the tone of the event, and for the Stewart's brewery hop lab which tasted great.”

“this event totally exceeded my expectations, it was brilliant” [Science in the saddle]

“Good to be treated like an intelligent adult. So many of these events are too simplistic/pitched at kids” [Mindfulness for depression]

“Being reminded about the bigger issues and being challenged to think. Loved listening to Aubrey. Fantastic speaker” [Life and the earth, Aubrey Manning]

“Clear presentation of something of which I knew nothing but was very interested and that's why I came!” [Stress, steroids and sweet roots]

“Really enjoyed this first class event.” [Beauty Lab]

From author Ken McLeod “Many thanks for putting on such a successful and sociable event. I thoroughly enjoyed giving the talk and was very happy with the size of the audience and the questions asked.”

“The clear concise approach exemplified with sample / exemplar. I'm a home brewer so quite fascinating.” [Art of brewing]

“combination of lecture and music a very refreshing approach. the passion of speakers and performance” [Clerk Maxwell musical evening]

“very up to date info and very high standard. Greatly pleased that I was able to follow it as a non scientist!” [U3A]

“A lovely event in a friendly environment” [Beauty lab]

Family events

- “The kids loved the jars and bringing them into the tent” [Glow in dark]
- "This is mint!"
- “The festival, once again, provided the opportunity for children in our community to access and enjoy science.”
- “brought grandchildren who do not live locally. They did not know any of children, but were very quickly involved in activities” [Glow in dark]
- “seeing the animals and being able to touch”
- “Hands on - both the pot making and handling artifacts” [Go potty for archaeology]
- “How interactive it was & kids having item to take home” [Glow in dark]
- “range of hands on and close up.” [mini-beasts, Dobbies]
- “The experiments - taking part kept daughter 3 year old busy”

Easter Bush open day:

- “All very interesting, amazing to see how technology is advancing research.”
- “So many interesting topics. Thank you for a wonderful day!”
- “I enjoyed the nature of fluorescence.”
- “(enjoyed) Meeting scientists and learning about their work.”
- “(enjoyed) The tour looking at modern labs”

Science Alive gala day

- “Seeing how engrossed the children were. There was something for everyone.”
- “Wow look, look at all these things under the microscope are ALIVE!” [Science alive gala day.]
- [enjoyed most]” Handheld microscopes, giant cell, chemistry brothers, skulls, millipedes.”
- “There was something for everyone.”
- “Good variety, we enjoyed it.”

Mayfield gala day

- “The buzz, so much going on. Planetarium was fab. Shame I have to take them away for lunch now.”
- “All fun facts and activities for everyone to enjoy.”
- “learnt things I didn't know. Looked amazing.”
- “Plenty of visitors, exhibits and staff. All seemed very well organised.” [volunteer]

Glencorse gala day

- “fascinating neuroscientists and spider houses.”
- “Lots of hands on activities for kids.”
- “making things and learn at the same time.”

Danderhall gala day

- Some children went out of their way to further look at crystals on the computers [volunteer comment]
- “the stalls where kids could make things. Staff were excellent and volunteers.”
- “everything, lovely venue and lovely staff who didn't mind mess!!”

Many comments praised the staff and volunteers

- “what a fantastic way to show off Midlothian, with such great ambassadors” [Science in the saddle]
- “The storytelling was first class by David Allison he had the audience spellbound” [Forest Families]
- “Alan and Neil fitted in so well with everyone, as they were so approachable and easy to talk to - this encouraged much discussion.” [Radical Reads]
- “All the children were really delighted with all our experiments this year. Kathleen's DNA extraction from various fruits really amazed the children.” [Be experimental]

- “There were lots of helpers who were fantastic - keep it up!” [Easter Bush open day]
- “everyone very friendly and welcoming.” [Easter Bush open day]

Comments from volunteers

- “Lovely to see older people using a microscope for the first time.” [Microscopic World at Crystalmount Sheltered Housing]
- “I expect I will be doing more public engagement!” [Science Alive gala day]
- “Finding out about the way we improve cattle genetics was a real surprise to several of the adults and they found it v interesting. One visitor's grandparents lived in one of the farm cottages years ago which was a nice personal link.” [Meet the cows]
- Very interesting questions from the public: really good engagement.[Mindfulness for depression]

Summary of Evaluation Findings

Audience numbers rose by around 2000 people this year. Half of that was in the public programme and half in the schools programme.

Our public programme engaged over 5000 people, compared to 4300 last year.

As expected, most of our attendees came as family groups. Our most popular events were The Science Alive gala day, Easter Bush open day and Science in the Glen, each of which highlighted current and historical science originating from Midlothian.

2014 saw a great expansion in our adults talks programme. Our most popular talk was Mindfulness for Depression. Life and the earth by Aubrey Manning was another highlight.

We also successfully piloted events at sheltered housing complexes for over 65's.

The majority of attendees came from Midlothian (68%), confirming that we are successfully engaging a local audience. We also attracted many Daytrippers from the surrounding area.

Our schools programme was very successful and allowed us to engage with 2905 young people (a rise of over 1000 pupils since 2013). This brought our total audience figure to just over 8000 people.

Both our public and schools events were scored very highly for enjoyment by participants.

Over 500 staff and volunteers assisted in the delivery of events, including people from industry, Higher / Further education institutions and other groups such as youth volunteers and local groups. At least 23 of these were STEM Ambassadors.

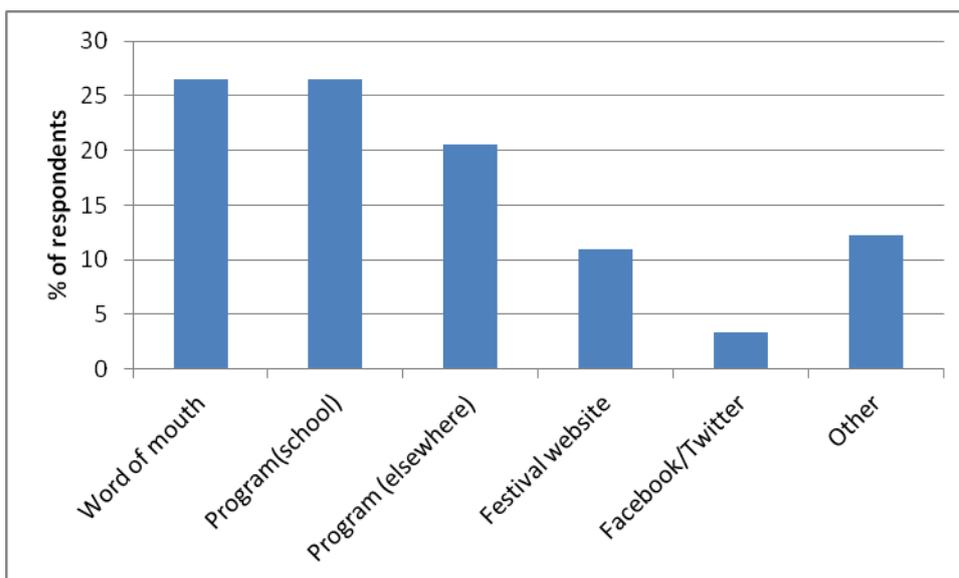
Over 250 of our volunteers and almost all of the presenters in our schools programme were practicing scientists and engineers, providing key role models for young people.

We ran several events in Dalkeith and Mayfield and engaged over 1500 people in these areas which are listed in the Scottish Index of Multiple Deprivation (SMID).

Postcode data confirmed that the festival is successfully reaching people who live in rural and deprived areas.

5.3 Evaluation of Advertisement Methods

Figure 6 – Advertising mediums public visitors reported seeing



This graph is based on evaluation data from public events (631 responses). Respondents were asked to mark all applicable ways they had heard about Midlothian Science Festival.

Similar to previous years, 'Word of mouth' was a key advertising medium. This should grow year on year as the festival becomes known.

Printed programs were also important. These were distributed mainly via schools (primary and secondary) as indicated in the graph. However, they were also put out by libraries, EAE distribution and by festival partners via their own networks.

Within 'other' the following were mentioned:

- Newspaper (eg Midlothian Advertiser, Midlothian News, Glasgow Herald)
- Websites (eg Google, Eventbrite, What's On, school website)
- Employer (University of Edinburgh, SRUC, IKEA, NHS, Midlothian Council)
- Radio
- Local Groups eg book club, Penicuik Community Arts Association, U3A
- Came to events last year
- Library
- Email
- Posters
- Just passing by

Printed programme

The printed programme was designed and printed by GMP Print solutions. We doubled the number of pages from 8 to 16 pages this year, to reflect the increase in events and to give each event a bit more space. However, the style and use of symbols and colours was maintained.

The cover image retained the circular 'science' image, and lots of images of people were added to the cover and throughout. A timetable of events by day was included on the first inside page. Events that would appeal particularly to adults were marked with a star on the timetable and throughout. Inside, the events were listed by area (with nearby areas located proximally within the programme).

Website

The website created in 2013 is working well.

However, there was a problem in June 2014 when a bot gained access to the website just after all the events had been uploaded. Unfortunately, the website had to be taken down for a short period of time and all the photos were lost and had to be reloaded. This was double efforts for Neil our freelancer who was working on the website. However, the website has now been moved to a new host, has additional security measures in place and is backed up more regularly. This seems to have resolved the problem for now and our webmaster is monitoring it periodically.

Google analytics are used to gather website data.
For the figures below, the period analysed was 1st Jul – 19th Oct 2014.

During this period there were 2,308 sessions on the website by 1,499 unique users. 320 of these sessions were completed on a mobile device and 239 on a tablet.

The majority of visitors to the MSF website (1,033 sessions) accessed the site via Google or another search engine. 689 came directly to the site (i.e. typed in the www address). 71 accessed the site via a link on visitscotland.com. 79 came via Facebook and 64 via Twitter.

Most visitors came directly to the home page (i.e. the first page they viewed was the homepage). However, some people navigated directly (probably via an external website / social media link) to specific event pages.

Social Media

Regular tweets / posts were made to Twitter / Facebook in advance of the festival, increasing to daily during the festival.

Midlothian Science Festival has 184 'likes' (followers) on Facebook. Facebook is difficult to use 'free of charge'. The inherent set-up means only a fraction of your followers will see your posts unless you pay to boost them. Nevertheless, if partners or individuals can be persuaded to repost, it can still be an effective mechanism for publicity for the festival.

Midlothian Science Festival has 260 followers on Twitter and has posted 280 tweets. Twitter is set up to automatically repost MSF tweets to Facebook.

Building the social media presence further is something that should be considered for 2015.

Press Coverage

The 2014 Midlothian Science Festival achieved some Press Coverage including:

- Several articles appeared in the Midlothian Advertiser throughout the year to keep Midlothian Science Festival in people's consciousness.
- We paid for a centrefold in the Midlothian News and a few smaller articles also appeared free of charge.
- Nicola Stock appeared on Black Diamond radio to advertise the Easter Bush open day.
- The Times newspaper covered the Mayfield gala day in its 'What to do' section.
- The University of Edinburgh website featured an article on the Easter Bush open day.
- A small item advertising the festival appeared in the Edinburgh Evening News.
- The Midlothian Advertiser photographer attended some events and took photos.
- The List had a general listing and wrote an article on the festival but did not list each event. Our freelancers put some of the events (e.g. adult talks) onto The List website.

Efforts will be made to increase press coverage in 2015.

Summary of Advertising Findings

The website is working well, and is compatible with a variety of platforms including mobile devices. It is now backed up regularly and has increased security mechanism in place. There is no plan to change the website in 2015.

Word of mouth cannot be underestimated as an advertising medium, and building partnerships is crucial to this, as well as to social networking (Twitter / Facebook).

The printed program is a key element of publicity; however, we need to continue to work with schools to ensure these continue to be distributed effectively.

We should continue to engage with the media, but acknowledge the inherent difficulties in getting wide scale coverage for a small festival. All year round coverage in the Midlothian Advertiser was a good step forward.

Advertising and promotions is again an area for improvement in 2015, but great steps forward have been made this year.

6. Overall Conclusion

Midlothian Science Festival continues to thrive. Audience numbers rose again this year by around 1000 in both our public and schools programme (~2000 rise in overall numbers).

The encouragement and support we have received from local businesses and organisations has been fantastic, and the willingness of the local people to participate in our events has been greatly encouraging.

The expanded adults programme was well received, but requires additional promotion and refinement. There seems to be an appetite for topics around Mental Health. The pilot activities in sheltered housing complexes were well received and could be expanded.

The schools programme has gone from strength to strength despite some glitches this year due to council education reforms and the loss of subject heads in high schools. Planning for school workshops will be scheduled into the festival planning calendar from Easter onwards as requested by high schools.

Midlothian Science Festival is becoming a known and anticipated part of the annual community calendar, for families, companies, libraries – in fact everyone! We look forward to October 2015 with anticipation.

Appendix 1 - Table 4 - Audience Breakdown by Event

Type of Event	Title	Venue	Attendance
Homecoming	Poetry of science	Dalkeith Library	48
Homecoming	Science in science fiction	Mayfield Library	20
Homecoming	Flame throwers to dishwashers	Dalkeith Library	15
Homecoming	Word potions	Loanhead Library	10
Homecoming	Graphic science stories	Mayfield Library	20
Homecoming	Graphic science stories	Danderhall Library	10
Homecoming	Sci-Ku	none	14
Homecoming	Scoffing Scottish Science Penicuik	Penicuik Town Hall	105
Homecoming	Scoffing Scottish Science Dobbies	Dobbies Garden Centre	105
Homecoming	Scoffing Scottish Science Competition	n/a	64
book	Book club - EskBank	Book club - EskBank	12
book	Book club - Roslin	Book club - Roslin	10
book	Pippa Goldschmidt	Lasswade Library	4
competition	Rocket Blast	various	109
competition	Molecule hunt	Dobbies Garden Centre	29
film	The Lego Movie	Gorebridge, Temple village Hall	50
film	Film and discussion - 'Her'	Lasswade Community Hub	20
gala	Science alive gala day/tea party	Easter Bush Campus	501
gala	Science alive (additional library only)	Lasswade Library	60
gala	Easter Bush Campus open day	Roslin Glen	389
gala	Science in the glen	Glencorse Centre	300
gala	Glencorse science day	Mayfield Library	237
gala	Mayfield science day	Danderhall Library	175
gala	Danderhall Science day	Lasswade Community Hub	85
music	A musical evening with Clerk-Maxwell	Penicuik, West Street Arts Centre	29
music	Midlothian community science ceilidh	Lasswade Community Hub	8
outdoor	Pond dipping	Vogrie Country Park	85
outdoor	Dip into the pondemonium	Vogrie Country Park	71
outdoor	Dens and Campfire Cooking	Springfield Mill, Polton	31
outdoor	Bat walk	Penicuik house	23
outdoor	5 km botanical walk	Roslin Glen	19
outdoor	Science in the saddle	The Roslin Institute	18
outdoor	Wild food ramble	Gorebridge Library	17
outdoor	A fungal foray	Vogrie Country Park	12
outdoor	Rock and roll ramble	Vogrie Country Park	8
outdoor	Woodland wonders	Newbattle Abbey College	2

Type of Event	Title	Venue	Attendance
show	Chemistry brothers	Lasswade Community Hub	200
show	NeuroTheatre: 'Live' Neurosurgery	Lasswade Community Hub	80
show	Ugly animals show	Easter Bush Campus	65
Show	Superhero Genetics Show	Easter Bush Campus	30
library	All things bubbles	Mayfield Library	80
library	All things glowing	Mayfield Library	70
library	Lava lab	Dalkeith Library	59
library	Science of magic	Newtongrange Library	42
library	World of fossils	Penicuik library	33
library	Be experimental	Newtongrange Library	30
library	Electronic flashing badges	Danderhall Library	29
library	Glow in dark workshop	Penicuik library	27
library	Bubble madness	Loanhead Library	26
library	Fluoro-science	Dalkeith Library	25
library	Fun science activities	Gorebridge Library	19
library	Who Durnit?	Dalkeith Library	17
library	DNA extraction/flourescence	Danderhall Library	14
library	Radical reads	Newtongrange Library	12
library	Forensics experiments	Penicuik Library	11
library	Glow in the dark fun	Loanhead Library	10
library	Beauty lab	Newtongrange Library	10
library	Experimental	Lasswade Library	9
library	Powers of ten	Danderhall Library	7
library	Be experimental	Lasswade Library	7
library	Chatterbooks, fun with science	Gorebridge Library	6
library	Camera obscuras	Danderhall Library	5
library	Launch of chatterbooks	Newtongrange Library	5
library	Body science	Dalkeith Library	4
library	Pinhole photography	Danderhall Library	4
library	Umbrella solar system	Danderhall Library	3
library	Chatterbooks all about science	Gorebridge Library	2

Type of Event	Title	Venue	Attendance
provider	Spend less, live more	IKEA, Edinburgh	2
provider	All things glowing	IKEA Edinburgh	207
provider	SCI-FUN roadshow	Dalkeith Library	150
provider	Supercomputing and you	Gorebridge Library	105
provider	National Mining Museum	National Mining Museum	50
provider	Zoolab	Dalkeith Library	48
provider	Microscopic world	Dalkeith, Crystallmount sheltered Housing	46
provider	Forest families	Gorebridge library	32
provider	A history of engineering in Midlothian	Loanhead Library	26
provider	Go potty for Archaeology	Loanhead Library	23
provider	Join the waste aware team	Newtongrange Library	22
provider	Scotland's time lords	Gorebridge Library	20
provider	Chocolate alchemy workshop	Lasswade Library	20
provider	Explore minecraft	Penicuik Library	20
provider	Computer game design	Penicuik Library	17
provider	Fossil fun	Penicuik Library	15
provider	Scotland's time lords	Dalkeith Libray	15
provider	An explosive journey	Dalkeith, Edinburgh College	40
provider	Computer game design	Lasswade Library	15
provider	Computer game design	Danderhall Library	9
provider	Join the waste aware team	Danderhall Library	8
provider	Scotland's time lords	Penicuik Library	7
provider	Mini-worlds	Dobbies Garden Centre	135
provider	Meet the cows	Easter Bush Campus	20

Type of Event	Title	Venue	Attendance
Talk	Mindfulness for depression	Lasswade Community Hub	70
Talk	Life and the earth	Lasswade Community Hub	40
Talk	Modeling neurodevelopmental disorders	Penicuik U3A	40
Talk	Heaven's above	Rosslyn Chapel	40
Talk	Heaven's above	Rosslyn Chapel	40
Talk	Science of sound	Rosslyn Chapel	38
Talk	The social brain	IKEA, Edinburgh	35
Talk	Stewart Brewing	Stewart Brewing, Loanhead	27
Talk	Hop lab	Lasswade Papermill	26
Talk	Lifetimes	Penicuik Library	25
Talk	The remarkable Elsie Inglis	Mayfield Library	22
Talk	Turing Test	Penicuik Library	18
Talk	Battlefield pathology	Mayfield Library	16
Talk	Science of stone	Rosslyn Chapel	16
Talk	James Hutton and his 'dynamic earth'	Rosslyn Chapel	15
Talk	Insect robotics	Lasswade Community Hub	14
Talk	Art of brewing	The Steading, Loanhead	11
Talk	Mood, mind and place	Heinsberg House sheltered housing	10
Talk	Models with bad air days	Penicuik West Street Arts Centre	10
Talk	Stress, steroids and sweet roots	Danderhall Library	9
Talk	Energy from thin air	Penicuik, West St Arts Cente	9
Talk	Making honey	Lasswade Library	7
Talk	We'd eat GM meat	Glencorse Centre	4
Talk	Fancy a date	Loanhead Library	1

Appendix 2 - Table 5 – List of School Visits

Workshop	Provider	School	Classes	No. Participants
Ugly Animals	Simon Watt	Beeslack HS	S4	160
			S1/2/3/4	120
		Loanhead Primary	S3	160
			P4-P7	94
Super Heros	Simon Watt	St Mary's primary, Bonnyrigg		50
		St David's Primary	P4-P7	108
		Lasswade High School, Bonnyrigg		80
Chocolate Alchemy	School of Chemistry, Uni of Edinburgh	Beeslack HS	S2	60
Fiddling the brain	Lewis Hou	Penicuik HS	S1	200
		Kings Park Primary		250
		Cuiken Primary	P1-4	100
		Cuiken Primary	P1-4	75
		Paradykes Primary	P3/4	60
		Lab in a Lorry	Lab in a Lorry	St David's HS
Exoplanets	Royal Observatory Edinburgh Visitor Centre	St David's HS	S2	100
		Dalkeith HS		100
		Beeslack HS		80
Café Sci Junior	The Roslin Institute	Beeslack HS and PHS		50
Farm detectives	The Roslin Institute	Roslin Primary	P4, 4/5, 5	90
Get Connected	Edinburgh Neuroscience, Uni of Edinburgh	Cuiken Primary		60
Scotland's Time Lords	Our Dynamic Earth	Cuiken Primary		120
		Moorfoot Primary		80
		Paradykes & St Margarets Primary		73
Bugs and bones	Edinburgh Infectious Diseases, Uni of Edinburgh	Loanhead Primary		25
		Strathesk Primary	P4	60
The food we eat	Queen Margaret University	Burnbrae Primary	P4/5/6/7	90
		St Lukes Primary		60
		Lasswade Primary	P5-7	180
Green Hero	Green Hero.eu	Lasswade Primary		90
		Moorfoot Primary		30

Appendix 3 - Table 6 – Average score per event (What did you think of today's event – score out of 5)

Event	Average Score
Easter Bush open day	4.56
Meet the cows	4.88
Mindfulness for depression	4.45
Life and the earth	4.65
Fungal foray	4.80
Rock n roll ramble	4.17
Science in the glen	4.51
Science in the saddle	4.92
Fantastic science stories	4.25
Body science	5.00
Lava lab	4.00
Zoolab	4.55
Fluoro-science	4.40
SCI-FUN roadshow	4.50
Stress, steroids and sweet roots	5.00
DNA extraction / Fluorescence	4.50
Camera obscura	5.00
Electronic Badges	4.60
Pinhole photography	4.50
Join the waste aware team	3.00
Danderhall gala day	4.75
Chatterbooks all about science	3.00
Supercomputing and you	4.00
Scotland's time lords	4.00
Fun science activities	4.00
Forest families	4.50
Chatterbooks fun with science	4.67
Explore minecraft	4.45
Lifetimes	4.67
Experimental	4.50
Rocket building	5.00
Pippa Goldschmidt	5.00
Computer game design	3.87
Go potty for archaeology	5.00
History of engineering in Midlothian	4.83
Glow in the dark fun	5.00

Event	Average Score
Fancy a date?	5.00
Bubble madness	5.00
Radical reads	5.00
Join the waste aware team	5.00
Be experimental	4.77
Science of magic	5.00
Beauty lab	5.00
Computer game design	4.25
Scotland's time lords	5.00
Glow in the dark	5.00
Turing test	4.20
Forensic experiments	4.75
Science Alive gala day	4.59
Botanical walk	4.00
Eskbank book club	4.38
Mayfield gala day	4.67
Battlefield pathology	4.40
Glow in dark	5.00
Science in science fiction	4.75
Elsie Inglis	5.00
Art of brewing	5.00
Mini-beasts Dobbies	4.44
Chocolate alchemy	4.17
Insect robotics	5.00
Clerk Maxwell musical evening	5.00
Glencorse gala day	4.42
Models with bad air days	4.33
Microscopic World	4.33
Modelling neurodevelopmental disorders	4.67
Heavens above	4.53
Heavens above (2)	4.92
James Hutton and his Dynamic Earth	4.80
Science of stone	5.00
Science of sound	4.94
Roslin book group	4.20
Scoffing Scottish Science - Penicuik	4.14
Scoffing Scottish Science – Dobbies	4.50