



ROYAL
ACADEMY OF
ENGINEERING

Ingenious

Public Engagement Grants

Final Report Form



MUSEUM *of the*
HISTORY *of*
SCIENCE

Objects of Invention

Museum of the History of Science
University of Oxford

September 2013 - July 2013

1. Grant details

a) Principal applicant/ grant holder details:

name:	Christopher Parkin
job title:	Lead Education Officer
organisation:	Museum of the History of Science
address:	Broad Street, Oxford OX1 3AZ
email:	christopher.parkin@mhs.ox.ac.uk
telephone:	01865 277297

b) Grant reference Ing: PAR01ING12

c) Funding:

Total *Ingenious* grant awarded: £6,257

Total *Ingenious* grant amount spent¹: £6,257

Total partnership funding received: £0

Source of partnership funding: N/a

Total in-kind support received: £1,700 (estimate)

Please summarise the nature of the in-kind support: Mainly time spent on project by the museum's designer/photographer

2. Project details

a) Project:

title:	Objects of Invention
start date:	1 st September 2012
end date:	31 st July 2013

¹ For any significant under-spend, please provide further details in the sections below.

b) Project objectives (up to 200 words):

The main project objectives were:

1. To create opportunities to learn about and engage with objects from the Museum's collection which demonstrate ingenuity in their invention, design and utility
2. To create opportunities to interpret these objects in relation to modern technology and engineering applications
3. To create opportunities for graduate engineers from the University of Oxford's Department of Engineering Science to gain practical experience of public engagement, including family and school audiences
4. To develop a format for an event which can be incorporated into the Museum's education programme as a sustainable offer to schools, and to develop relevant resources to support the interpretation of historic objects from the collection in terms of engineering and design
5. To generate interest in engineering and invention, particularly amongst school pupils in their GCSE years who might be considering engineering as an option for university study, and to support the University's Department of Engineering Science in widening access to students from a broad range of backgrounds.

c) Please provide a **project summary** for sharing with the wider engineering and public engagement practitioner communities. Please include details on the project, its outputs, outcomes, impacts and learning (up to 450 words). Please ensure to include information on the engineers that participated in the project:

The project ***Objects of Invention*** was funded by a grant from the Royal Academy of Engineering under the *Ingenious Programme* for public engagement. It was a partnership project between the Museum of the History of Science, and the Department of Engineering Sciences at the University of Oxford.

The Museum of the History of Science houses a unique collection of scientific objects which include devices designed and engineered for everyday use. The Museum has a well established education programme which engages schools and families.

The project aimed to provide training for up to 16 graduate engineers from the University's Department of Engineering Sciences in techniques of public engagement, and the opportunity to gain experience through the planning and delivery of events for secondary schools and families in which their own interests and research in modern engineering applications could be interpreted alongside objects from the Museum's collections.

Initially a group of about 20 engineers were recruited and this number reduced to a core group of 16 who continued to take part in the events.

The training programme, delivered in partnership with the University Museums' Volunteers Service, consisted of four 2 hour sessions focussing on

object handling, learning from objects, and working with different types of audience. Towards the end of the training programme, the engineers worked with education and collections staff to plan the events; a whole day for the general public which took place in March 2013 during National Science and Engineering Week, and three study day events for secondary school students, one in March and two in June.

The Family day provided a friendly opportunity for the engineers to find their feet. The event attracted a near record single day audience of over 2,000 people and was a huge success. Activities ranged from investigating gyroscopes to Stirling engines and mobile medical technology, and the programme was supplemented by exhibition tours and workshops which also involved other community volunteers. The feedback from visitors was very positive and highlighted the enjoyment of learning about current engineering applications in the historical context of the Museum.

The three schools' events attracted 150 students from 6 local secondary schools. These events included a circus of activities facilitated by the engineers alongside a 'design and build' workshop created by education staff and a workshop on the early history of radio technology. The feedback from the school students and teachers was also very positive indicating that the activities were informative and interactive, and the presence of the engineers had contributed significantly to the students' enjoyment.

In addition to the development of skills and knowledge of different audiences, the engineers reported a significant increase in levels of confidence in public engagement as a result of the training and taking part in the events. They also felt more inspired about their own work.

As well as the contribution to the Museum's programming, the project has created a template for future projects and made a significant impact on other staff and the organisation as a whole by bringing new knowledge into the Museum and challenging ways of working with objects from the Museum's collection.

d) Is this the first time you have completed a public engagement with engineering project?

Yes.

The following sections (3, 4 and 5) ask you to report against the *Ingenious* **key outcomes** defined at the start of your project. For key outcomes that do not apply to your project, write n/a.

The *Ingenious* evaluation guide also contains further information about reporting key outcomes: www.raeng.org.uk/ingeniousevaluationguide

3. Key outcomes - metrics

- a) Please restate your key outcomes for the target number of activities, events and/ or resources you aimed to deliver:
- To deliver a series of **6 training sessions** for the engineers in skills for public engagement
 - To deliver **3 whole day events for secondary school** pupils
 - To deliver **one family day event** at the Museum
 - To train at least **16 graduate engineers** from the University's Department of Engineering Sciences in skills for public engagement in a museum and involve them in the delivery of events
 - To engage up to **180 secondary school pupils** in the 3 school day events
 - To engage **1,000 visiting members of the general public** in the family day event

b) Actual activities, events and/ or resources delivered:

- A series of **6 training sessions** for the engineers in skills for public engagement were delivered
- **3 whole day events for secondary schools** were delivered
- **One family day event** was delivered at the Museum
- **16 graduate engineers and 3 undergraduate engineers** from the University's Department of Engineering Sciences were involved in the training and public engagement
- **151 secondary school pupils** from Years 9-11 were engaged in the 3 school day events
- Over **2,000 visiting members of the public** were engaged in the family day event

c) Any other comments on metrics? (up to 200 words)

- An **additional 13 community volunteers** from the University's pool of registered volunteers were involved in the family 'Objects of Invention' day in various ways, from helping out with the engineers' activities to giving supplementary tours relating the Museums' collections. Many of these are experienced volunteers and commented on how much they enjoyed working alongside the engineers and participating in the event.
- An additional **4 registered volunteers, 3 HLF-funded trainee education officers**, and **3 members of staff** from the University Museums' Volunteers Service were involved in various ways in the schools' event.
- **One HLF-funded trainee education officer** and **2 members of the University Museums' Volunteers Service** were involved in designing and delivering the programme of training sessions for the engineers.

4. Key outcomes - engineers

a) Metrics

Please restate your key outcome for the target number of participating engineers:

- To train at least **16 graduate engineers** from the University's Department of Engineering Sciences in skills for public engagement in a museum and involve them in the delivery of events

Actual number of engineers that participated:

- **16 graduate engineers and 3 undergraduate engineers** from the University's Department of Engineering Sciences were involved in the training and public engagement

b) Experiences

Please comment on the engineers' experiences, giving figures or percentages where appropriate (eg 7/9 found the activity enjoyable). For key outcomes that do not apply, write n/a:

Enjoyable (up to 100 words):

All the engineers reported that both the training sessions and events they took part in were enjoyable experiences. In particular, they commented on the enjoyment of participating in the events:

'I really enjoyed it [project]. It greatly improved my public speaking skills and my efficiency in presenting'

'I very much enjoyed it! Great to learn about the educational work and lost of fun to engage with the pupils'

'It was enjoyable to pass on knowledge and enthusiasm'

'A very enjoyable experience and nice to think about engineering and science from an entirely different perspective than my usual day!'

'I surprised myself – really enjoyed the outreach and working with children'

Interesting (up to 100 words):

The engineers reported that all four training sessions were interesting and informative. The engineers gave feedback at the end of each session. Almost all aspects of the training sessions were scored at 8-10 out of 10 for content, delivery and enjoyment with the majority scoring 9 or 10.

The majority of the engineers expressed interest in the educational aims and the use of different methods for different audiences:

'I really liked the sessions leading up to the events – great chance to discuss methods of engaging. The fact that there were different types of events (family/schools) was very exciting because you could make changes to the depending on the audience'

Informative (up to 100 words):

All of the engineers reported that they found the training sessions informative. Many cited increased knowledge of the needs of different audiences (e.g. families, adults, school pupils) and choosing appropriate methods of public engagement:

'The training course was a chance to prepare and further hone my communication skills and knowledge...more importantly how to engage young ones in engineering'

'It has been useful to learn how to adjust language, style and content depending on the audience'... 'it has been really useful to be taught about the basics of learning processes and approaches for those ages.'

'The training course made me aware of the expectations of students of all ages when they visit a museum and that helped me draft an activity'

'The training course helped me better understand different learning styles and made me feel more confident when engaging with visitors'

Interactive (up to 100 words):

All of the engineers reported that they appreciated the interactive nature of the training sessions and the events they took part in. Many commented on the advantages of being able to share their knowledge in a practical way by participating in a museum-based event:

'Through hands on activities, I got a deeper and more thorough understanding of what I learned in lectures'

'As a graduate student, I rarely interact with school children or families'...

'The museum offers a great place for this interaction to take place in an exciting and productive way.'

'The fact that it was the Museum of the History of Science was an excellent opportunity to engage public with facts of both history (artefacts) and contemporary science (demonstrations)'

Well-organised (up to 100 words):

All the engineers reported that they thought the training sessions and events were well organized, although there were some who commented that they would have like to have had more activity planning time built into the training sessions:

'I think that the organization was very good, considering that it is not known beforehand how many visitors will come. I can't think of anything significant the museum's organization could have done better.'

'The organization of the event (family day) was superb and the level of support by museum staff in preparing activities was amazing and pushed us to engage visitors in a creative way.'

'Interesting surroundings, well run'

c) Impacts

Please comment on the impacts of the project on the participating engineers.

Raised awareness (eg of public engagement, ethics, societal implications) (up to 100 words):

The majority of engineers reported an increased appreciation of the levels of knowledge and interest in engineering of children and adults as a result of participating in the events. They also reported an awareness of the different ways in which children and adults respond to information and activities:

'The response in the family day was excellent and the people were generally interested. In the schools day not everyone was interested, which is understandable, but we tried to make it more fun by engaging the students.'

'I am more aware of the different needs and learning styles that visitors respond to so I can better engage them in activities'

'Participating in the public event helped show me the general public's broader perspective of science and engineering.'

Improved interest/ attitudes (eg to public engagement) (up to 100 words):

The majority of engineers (80%) reported an increased level of confidence, particularly as a result of participating in public and schools' engagement activities in the museum:

'I would really like to have more similar experiences with the museum in order to further develop these techniques of public engagement'

'I was worried about presenting in public before. After the event, I was more enthusiastic about my work and delighted to share my knowledge with the public.'

'I felt a lot more confident than before. It was great to get a chance to try and explain things to people!'

Developed skills (eg public engagement skills) (up to 100 words):

Most already had some experience of public engagement but all the engineers reported that participating in the events broadened their

experience and gave them useful experience of dealing with **different** audiences.

On a scale of 1 to 5, all of the engineers reported an increase in their 'knowledge of techniques of public engagement' and their 'knowledge of different audience needs' with at least 50 % reporting a 2 point increase or more:

*'After the training I felt more capable of captivating a younger audience'
'I have gained a lot of public speaking experience. Talked to a wide range of audiences about something that relates to my work. Educating children also made me feel confident in what I do'*

d) Additional information/ data collection

Please provide any other comments on the participating engineers (including the 'type' of engineers that participated: stage in career; academia or private sector; prior public engagement experience) and any other impacts not noted above (up to 200 words):

The engineers were all students from the University's Department of Engineering Sciences. The majority (16) were postgraduate students, but 3 were undergraduate students with a particular enthusiasm for public engagement. Eight of the postgraduate students were from research group specializing in biomedical engineering.

With regard to the impacts of the project, it is worth noting that the engineers expressed particular enthusiasm for working with the Museum, partly as an exciting venue for engaging with different audiences and objects, but also because many of them saw it as an opportunity to develop their historical knowledge of science and engineering as well.

Please state how the data/ evidence on engineers' metrics, experiences or impacts was collected (eg observation, questionnaire, interviews) including comments on reliability (up to 100 words):

The engineers were asked to complete questionnaires at various stages of the project:

Feedback forms at the end of each of the 4 training sessions.

A 'Phase 1' questionnaire following the first public events (family day and pilot schools' day) in March.

A 'Phase 2' questionnaire following the final schools' day events in June which marked the end of the delivery phase of the project.

5. Key outcomes – public audiences and specialist groups

a) Metrics

Please restate the key outcomes for public or specialist group audiences including the target audience type and number:

- To engage up to **180 secondary school pupils** in the 3 school day events
- To engage **1,000 visiting members of the general public** in the family day event

Actual audience type and numbers reached:

- **151 secondary school pupils** from Years 9-11 were engaged in the 3 school day events
- **6 local secondary schools** were involved
- Over **2,000 visiting members of the public** were engaged in the family day event

b) Experiences

Please comment on the audience experiences, giving the percentages, where possible (eg 85% found the activity enjoyable). For key outcomes that do not apply, write n/a.

Enjoyable (up to 100 words):

Schools' events:

Eight teachers accompanying students to the June schools' events responded to the questionnaires and, on a scale of 1 to 5, rated the event at 4.75 for enjoyment and rated the contribution of the engineers at 4.6.

The response from students led to an average rating of 4.4 for enjoyment with over half rating the event at 5.

The 3 teachers who accompanied students on the March pilot day all rated the day 5 out of 5 for enjoyment and meeting their expectations. The response from the students was more variable with the majority (23 out of 43) rating the day at 4 with the average at 3.6.

Family day event:

Of the 37 respondents to the exit survey, all rated their enjoyment of the event between 7-10 with over 50% rating it at 9 or 10.

One visitor commented that '*explanations were filled with passion and insightful examples*' and another said they enjoyed the '*demonstrations with lively helpers*'.

Interesting (up to 100 words):

Schools' events:

In response to the schools' days, teachers reported:

It '*encouraged future aspirations and understanding of the past.*'

It provided '*a great opportunity in all sessions to appreciate the appliance of science*' which '*engaged pupils*' and '*encouraged their view on engineering.*'

Family day event:

The questionnaires indicated that there was lots of interest in the activities and demonstrations and when asked about 'one thing you particularly enjoyed from today's event' cited specific examples from a range of activities from the Stirling engines and the atmospheric railway to gyroscopes and the Marconi radio apparatus.

Informative (up to 100 words):

Schools' events:

The teachers reported that the schools' events were informative:

The engineers had '*given pupils more idea of how inventions have developed and research behind them*'

'Very positive. It was good to have people working in the field to share their knowledge with the students.'

The students commented on the '*range of activities*' and the '*interactive/hands-on nature of them*', and '*seeing how things work*'.

One teacher commented that they would have liked to have had more time to spend on each activity.

Family day event:

When asked about whether they felt they had learnt something about engineering through this event, 59% of the respondents indicated that they had learnt something and were able to cite specific examples. 5 respondents indicate that they had not learnt anything new about engineering of which 2 said they were engineers or 'new a lot already'. Several respondents did not get this far in the questionnaire or left it blank.

Interactive (up to 100 words):

Schools' events:

The teachers reported a high level of engagement amongst the students on the schools' days in June:

The engineers '*kept pupils engaged and were able to answer their questions*'

The students *'got to see 'real' engineers at work and presenting inventions they were working on.'*

Family day event:

The questionnaires did not specifically ask about this, but responses generally indicated enjoyment of the demonstrations, activities and interaction with the engineers and the fact that these activities were taking place in a Museum.

Well-organised (up to 100 words):

Schools' events:

A teacher commenting on a schools' day wrote:

'An excellent day. All the activities were well organized and fit for purpose. Will definitely do this again if offered.'

c) Impacts

Please report back on the impact of the project on public/ specialist audiences.

Raised awareness (eg of engineering) (up to 100 words):

Schools' events:

The teachers at the schools' events indicated that the events had given students a broader understanding of engineering applications and *'encouraged future aspirations'*. When asked about the effect on the students of the participation of the engineers in the event, all the responses were positive with comments such as *'It was good to have people working in the field to share their knowledge with the students'* and that it *'encouraged their view on engineering'*.

Family day event:

Responses to questions in the exit survey about what visitors had learnt something about engineering (59% of the respondents indicated that they had learnt something and were able to cite specific examples) indicated that the event had resulted in an increased awareness of engineering and current applications. In addition to this, there were several comments which indicated an interest in ideas about development or progress in engineering which the event promoted through the historical context of the Museum.

Improved interest/ attitudes to engineering (up to 100 words):

Schools' events:

On a sliding scale, the majority of students taking part in the March pilot event indicated a more positive attitude towards engineering. There were only 3 responses indicating a less positive attitude.

As a result of the June schools' events, all the students indicated a more positive attitude, over half indicating a level of 75% or above on the scale. There were no responses indicating a less positive attitude.

The teachers' responses also indicated that the events had '*encouraged their view on engineering*' and '*encouraged future aspirations and understanding of the past*'.

Family day event:

46% of the responses to a question about whether the family day event had changed the way they felt about engineering indicated a more positive feeling about it, whilst the other responses were either nil or indicated 'no' (6 out of 37). 3 out of the 6 who indicated 'no' said so because they 'already were enthusiastic about engineering' or words to that effect.

One older respondent said that he was '*encouraged by the fact that new students were reflecting on old inventions*' and another said that it was '*great to see the development of ideas*'.

d) Additional information/ data collection

Please provide any other comments on public/ specialist audiences metrics, experiences or impacts overall (up to 200 words):

Metrics: The number of visiting members of the public who attended the family day event was far greater than expected and was near to a record single day audience for the Museum.

The total number of secondary school students engaged in the schools' day events was less than expected and booking by schools was unexpectedly slow. We think the main reason for this was insufficient lead time for the publicity which resulted from the timescale necessary for staff and engineers to prepare the programme. This meant that some schools who **were** interested were not able to book because the dates had already been taken by other events in the school calendar.

Please state how the data/evidence on public/ specialist audience metrics, experiences or impacts was collected (eg observation, questionnaire, interview) including comments on reliability (up to 100 words):

During the family day event in March an exit survey was conducted over a 2 hour period resulting in a sample of 37 responses.

All three schools' events were evaluated using pupil feedback forms and questionnaires completed by the accompanying teachers.

It is difficult to assess the reliability of the evidence given that all these events had several elements; to some extent the responses will have been affected by other factors such as the Museum environment itself and, for schools, factors beyond our control such as group dynamics and expectations set up by teachers before the event.

In general, with regard to schools' events, we tend to rely more on the judgment of teachers than the comments of students which are sometimes more readily affected by immediate circumstances and 'peer pressure'.

6. Shared learning

a) Were there any particularly successful elements of the project that it would be useful to share with others? (up to 100 words):

Overall, we felt this was a very successful project and were pleased with the outcomes. In particular, we felt that the training course in methods of public engagement was a very strong feature of the project as was the opportunity for public engagement in the Museum offering experience with different audiences. The engineers fed back that the training had been effective in highlighting different strategies for public engagement and the needs of different audiences. It was also clear that the engineers recognized the expertise of the Museum in the field of public engagement as well as the unique opportunity to communicate ideas about engineering in a historical context. Equally, it was clear that staff from the Museum recognized the enthusiasm and expertise of the engineers and what they were able to bring to a different interpretation of aspects of the collection.

The opportunity to work directly with objects from the Museum's collection was also welcomed and, even if with a degree of trepidation by some, was seen as something special.

b) Were there any elements of the project that did not work well? If so please describe what you learned. (up to 100 words):

Several of the engineers commented that they would liked to have had more time for planning the activities, and for this to have been integrated into the training sessions. In addition to this, we felt that the opportunity to use objects from the collection was not taken up by the engineers as confidently as we had hoped resulting, in some cases, in a weaker link between the activities created by the engineers and the Museum's collection than we had anticipated. On reflection, if we were to repeat this project, we would do more to encourage the participants in this direction by spending more time in amongst the collection during training sessions, and by identifying more specific opportunities and examples of activities related directly to objects from the collection.

c) Who were your partners? Please comment on any collaborations and how well they worked, including challenges and lessons learned. (up to 200 words):

The main partners in the project with the University's Department of Engineering Sciences and the University Museums' Volunteer Service. A good working relationship already existed between the Museum and the University Museums' Volunteer Service. The project offered a significant opportunity for further collaboration, particularly in the design and delivery of the programme of training sessions for public engagement. The Volunteer Service already had some experience of delivering similar training sessions to groups of experienced volunteers, and we were able to benefit from this experience and adapt some of the training activities for the engineers. Staff from the Volunteer Service were keen to participate in the training sessions and were supportive in delivery and the reputation of the Service could be said to have been enhanced across the University Museums as a result of their involvement in the project.

The partnership between the Museum and the Department of Engineering Sciences was a new one. The Department was supportive of the aims of the project and assisted in the process of recruiting the engineers. There was also some involvement of staff from the department in advising engineers in relation to their activities. However, we felt that there was little attempt to follow up on the progress of the project and that better communication with key members of the department might have resulted in the project having a more obvious profile within the engineering community through, for example, a feature on the departmental website.

d) Did the project provide any particular insights for you, your organisation or any partners (up to 100 words)?

The project provided the Museum's education department an opportunity to extend its remit by working with a new audience and subject matter, to extend its offer to schools, and to build its reputation for generating impact through innovative work. It also provided an opportunity to develop a template for future collaborative projects with specialist groups, and for the Museum as a whole to gain confidence in staging more interactive events in which objects from the collection have a central role.

Recent consideration of extended learning opportunities at the Museum have led the education department to experiment with the practice of co-production in which specialist audiences lend their experience, knowledge and insight on an equal basis alongside museum staff. The project provided some insights into this kind of collaborative learning experience.

7. Additional information

a) Other outcomes and impacts

Please provide and comment on any other outcomes and impacts of the project (up to 200 words):

An **additional 13 community volunteers** from the University's pool of registered volunteers were involved in the family *Objects of Invention* day in various ways. Many of these are experienced volunteers and commented on how much they enjoyed working alongside the engineers and participating in the event.

Overall, **4 of a current cohort of 6 HLF-funded trainee museum education officers**, and **3 members of staff** from the University Museums' Volunteers Service were involved in the project in various ways including the design and delivery of the programme of training sessions for the engineers. They gained valuable insight into the project and experience of working with the graduate engineers.

Other museum staff such as the Museum's designer and collections staff were involved in the project and this had an impact on current working practices by challenging views on how accessioned objects from the collection may be used in public and schools' events and handled by people other than museum staff.

It is likely that the project will have an impact on other museum educators as a result of dissemination through conferences and training days (see section on dissemination).

b) Additional evaluations

If you have conducted an additional evaluation of your project please make a note of it here and send a copy of the report to the Academy:

None. We collected more specific information about the quality and delivery of the training sessions for the engineers which we will use to inform similar programmes in the future.

c) Dissemination

Please describe if and how you raised awareness of the project to your peers, your organisation and the engineering and public engagement communities, including the methods used (eg newsletters, conferences) and how many people were reached (up to 200 words):

Website: The project is represented on the Museum's website under education special projects (<http://www.mhs.ox.ac.uk/education/special-projects/>). This has yet to be developed to give a full overview of the project; we aim to do this over the next couple of months and to add resources created by the engineers such as the posters accompanying the activities they developed.

Oxford ASPIRE: The Museum is one of the four museums of the University of Oxford taking part in the Oxford ASPIRE partnership which manages a programme of activities supported by a major grant from Arts Council England. Oxford ASPIRE has raised awareness of the project through monthly reports of ASPIRE activities disseminated to colleagues across the university museums and to the wider professional community. As a result of this, other colleagues have expressed interest in the Academy's *Ingenious* grant scheme and in one case have sought particular advice in relation to a prospective application.

Conferences and training days: The project was presented as a case study in a workshop given at this year's GEM (Group for Education in Museums) Conference, an annual national conference for museum educators. It was also presented at an Oxford Museums' training day on post-16 museum learning which was attended by a group of trainee museum education officers and other museum educators from the region.

d) Further work

Please describe whether any part of this *Ingenious* project will continue after the funding period and whether any aspects of the project are likely to become embedded in your work or the work of partners/ collaborators (up to 200 words):

Having established a training programme for the engineers, we are considering the possibility of extending the project to support engineers in public engagement through similar events on an annual basis, but our capacity to deliver this will depend on the availability of staff and continuation of funding.

We are also considering the possibility of using a similar model to create training opportunities in public engagement for postgraduate students from other academic departments.

e) Collaborations and partnerships

Are the collaborations or partnerships developed during the project likely to continue? If so, in what way? (up to 200 words):

The main partnerships in this project were with the University's Department of Engineering Sciences and the Oxford University Museums' Volunteers Service. We would like to continue the collaboration with the academic department as indicated above under 'Further Work', and have been encouraged by the participating engineers to do so. The partnership with the Volunteers' Service is on-going and the project has extended the scope of our work with this service and provided new prospects for the future.

8. Media coverage

a) Please note how many items of media coverage your project generated:

National press	0
Regional press	0
Local press	1
Online	2
Radio	0
TV	0
Specialist media (e.g. <i>Times Educational Supplement</i> , <i>Ingenia</i>)	0 *
Other (GEM Conference 2013 - Group for Education in Museums' annual national conference)	1

*The project will be submitted to the GEM (Group for Education in Museums) seasonal publication of Case Studies.

b) Any other comments on media coverage including successes and challenges if appropriate? (up to 200 words):

At the GEM Conference 2013, the project was presented as a case study museum education project in which specialist volunteers were involved as 'co-producers', both in the curatorial sense of bringing new interpretation to objects from the Museum's collection, and in the sense of co-producing events involving public and schools' engagement.

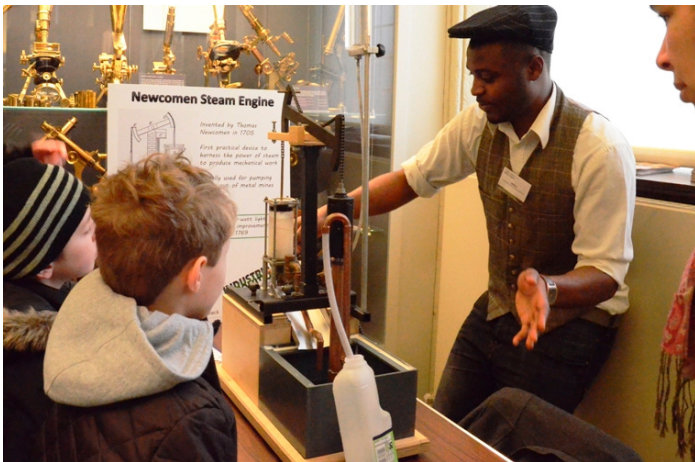
9. Any other comments?

(up to 400 words):

We have very much enjoyed the opportunity to develop and deliver this project and would like to express our thanks to the Royal Academy of Engineering for its support. The support given, particularly with regard to evaluation, has been very helpful.

Many thanks for completing your Final Project Report.

Family Event, March 2013



Schools' events, March and June 2013

