Evaluation prepared for The Refinery, lead producers of SMASHFestUK
1. Highlight findings

1.1 A great narrative concept

The concept of an impending asteroid hit as a unifying theme behind all the different activities and performances was very clever and effective. Children played along with the ‘let’s pretend’ of it, asking with excitement if the strike was really going to happen. Children are more able than adults to hold in their mind the possibility of something being possible, while also being fictional.

1.2 A really positive response from audiences

The feedback from visitors to the festival was enthusiastic on the whole. Supermarket Sweep was the most popular activity, partly because it animated the Library and worked well as a game. Other popular events were ‘Dr Death and the Medi-evil Medicine Show’ and the SMASFest Comedy Club 4 Kids. When asked which events they liked least, only 13 out of 42 responses mentioned any particular activity.

There were some exciting and surprising moments, for example, when artist Richard Dedominici built a model of Deptford and then jumped on it to destroy it as if in an asteroid attack.

The performers and contributors were asked to pass on any feedback from audiences, and observations of how their sessions were received. Their observations were generally positive, for example:

_The event had a lively feel that fitted well with the community context. The overall theming worked well and allowed a lot of flexibility in the choice of activities and subject matter. The event was well attended and the audience were enthusiastic._ Howie Watkins

_Both shows were a lot of fun. Lovely audiences for both and really enjoyed myself... Had a few parents tell us after the show that both they and their children had enjoyed._ Tiernan Douieb

_I got lots of laughs so I guess that was good! I also got a few positive tweets after the careers event._ Sheila Kas

A small number of participants gave feedback about the pitching and age-appropriateness of some of the material, a point drawn out below.

1.3 New audiences were reached

This was an unusual event, with a diverse range of activities exploring science in an entertaining and creative way, so it was very likely that everyone attending experienced

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1 We have not had time to consult with teachers and pupils on their responses to the workshops and talks in four local schools.
something new. Everyone saw scientific ideas as relevant to themselves and to potential situations in real life.

The event helped the Albany Theatre reach new audiences. Part of the festival was in Deptford Lounge, where regular users of the library were drawn to the other events in the Albany. Many of these had not heard of or visited the Albany, despite being very local.

“When...I announced the next event happening in ten minutes, one child looked so excitedly and was pulling his father along. He smiled and looked at me and said, "He's never been to so much theatre before!" which I thought was lovely.” Cat McGahey

The event was organised in a very inclusive way, with most activities open to all-comers and late-comers. Passers-by were encouraged in to explore by an actor, a troupe of zombies, some stormtroopers and volunteers offering spare tickets to the ticketed events. Although this made it a little chaotic in parts, it meant that people of all backgrounds and levels of confidence could have a taste of the experience.

1.4 Progression in learning

The Supermarket Sweep activity was mentioned most often as the most enjoyable activity. It was also the most successful as a learning experience, because children were returning to do it again and again. They were trying to get a better score each time, learning by trial and error what food stocks would be the most nutritious and sensible in a disaster. This is an excellent example of game-based learning, where you can progress in steps and improve through practice. The success of this activity suggests that it could be further developed and exported to other settings, for example, as a workshop in schools.

Some participants gave feedback that more information could have been provided at the start about all the factors aiding success but this might have reduced the effect of finding out through trial and error. That said, an information resource could be provided afterwards as part of a reward.

1.5 Challenge of pitching to young audiences

A key challenge was around pitching science to a different age profile than had been expected, for some of the events. The concept of Smashfest and its planned marketing was aimed primarily at teens, notoriously difficult to reach. However, families with young children were those responding to the marketing, or as passers-by being encouraged in. It was intended as an inclusive event, with activities to suit all ages. The message of Smashfest reached teens and young adults through talks at the Lewisham Youth Festival and in prior visits to local schools, but these did not have the follow-on effect of drawing them en masse to the main venue of the Albany.

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2 1000 secondary pupils reached at Deptford Green and Haberdashers Askes Hatcham College. Two half-day workshops delivered for Elliot Bank Primary and Hatcham Temple Grove Free School. These workshops covered astrobiology and the spread of disease with an asteroid hit. Children made meteors out of modroc. They asked ‘why do you look green when you’re not well?’, ‘Why does bacteria make you be sick when you need to?’ They
This was the main challenge mentioned by many of the performers/contributors.

For example, Howie Watkins altered one of his shows for older children to include more material suited to young children, but then (because they liked it so much) the same children saw some of the same material when they came to a second show that had been specifically designed for a younger audience.

*They were mostly well behaved but a few had trouble concentrating and were running about a bit.* Tiernan Douieb

*We were under the impression that our audience was going to be teenagers but in general it was primary school children and their mums...I don’t think it reached the target age group and the publicity could have been better.* Louise Dawson and Professor Kneebone

Given the unexpectedly young audience, and the variety of activities over a whole week, it is no surprise that there were differing views about how the content was pitched. For example, one of the presenters was a well-established academic scientist, who felt it should have been clearer that the content pitch should be much lower, whereas a 10 year old child felt the science was too simplified. The organisers would have preferred some of the performers/contributors to respond to the brief with more interactive and accessible content anyway, not assuming that teens can cope with more informational input.

A festival approach is always going to present these challenges, because the more events you are programming the more likely they will be ready-made imported pieces, and there is less time there to craft them to the exact situation. Participants need as much guidance as possible to choose activities, and to feel free to drop in and out.

### 1.6 Visitor information

Participants wanted more information about what each activity was, what level it was pitched at and what was expected of them, and performers/contributors wanted more information about the running order and process.

For example, the welcome desk for Supermarket Sweep was beyond the installation of shelves so people wondered at first if it was a pop-up shop or foodbank. There was a poster and an ‘Aunt Sally’ photo board near the entrance but people looked beyond this to the shelves.

*Getting the audience to the room we were located within... It would have been good to have had better signage within the venue, or better yet be situated somewhere less out of the way.* Jen Wong, Guerilla Science

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used a UV light to see bacteria. They also made craters with flour and chocolate powder, and big balls showing the solar system.
1.7 Prior marketing

The majority (42%) of attendees of SMASFest had heard about it by word of mouth, either beforehand or on the day while visiting the area. This suggests that more prior marketing was needed.

The website and graphics for the event were fun and professional looking. However, it was hard to understand the narrative concept – and the range of activities on offer - very quickly from the provided materials. A viral video or fake news report spread at least two months in advance may have had the desired effect. Nearer the time, teens and young adults would have responded from direct communications spread by their peers, describing the rewards of participation.

1.8 Programming challenges

The programming was challenging because of the need for funding from different sources. ACE confirmed a grant for artist contributions (and resource for this evaluation) only 5 days before the festival started. This meant that the programme could only be confirmed at the last minute.

Luckily, Albany Theatre allowed use of the garden for extra space, which added to the variety and success of the event.
2. Recommendations for the future

Do it again!
You’ve said, “We want to see Smashfest as an infectious idea that spreads.” This certainly feels possible. The concept, mission and audience reaction are strong enough for Smashfest to be repeated, which will allow you to learn from the initial challenges and improve it.

Be mission-driven
It should be driven by the mission (rather than by the brand or concept), which could be described as using compelling narrative frames to reinvent science communication/festivals, in order to engage young people more meaningfully in science. There is a great need for public engagement in science that helps people develop skills for a challenging future, and which is not entirely driven by corporate industrial agendas.

Invest more in engaging young people
More work may be needed to convey the story to teenagers, who may need more incentives to buy into a ‘let’s pretend’ scenario. Incentives might include prizes and awards, certificates/digital badges, learning outcomes and skills practice, the promise of thrilling immersive experiences and social kudos.

To engage secondary schools more, you will need to tap into core agendas such as how to deliver a new Computing Curriculum, how to teach ‘character’ and ‘British Values’, how to increase student wellbeing, how to deliver career’s advice and how to increase school-wide attainment in Science GCSE.3

Consolidate the event
Rather than expand it, condense any instance of Smashfest to one or two days. This will make it more manageable and affordable, and make it easier to attract audiences for the entire event. The audience would experience the whole narrative.

It could allow Smashfest to be a tighter event that can be repeated as part of other science and culture festivals, perhaps requiring fewer performers/contributors but a coherent set of challenging activities that can be facilitated by local volunteers.

A consolidated event could also be more aesthetically crafted, so that all the parts of the event feel as one and the visitor becomes immersed in the story.

If you reduce the range of funded activities, you could still allow a voluntary fringe of offers to flourish outside your management.

Build on the success of Supermarket Sweep
Develop the Supermarket Sweep into a workshop that can be taken into schools and CYP groups (e.g. Guides/Scouts). It could also be offered on a more commercial basis to companies looking for team development packages.

3 Especially significant if the EBacc is made compulsory.
Alter the mood for times of day
Programme distinct activities in relation to particular target audiences and the times to suit them. For example, to attract teens you could kickstart Smashfest with an early evening event with a game-like party atmosphere (e.g. invite cosplay, end it with dance music, provide food). Incentivise them to attend the following day, for example, chances of winning prizes or giving them specific challenges according to their self-identified skills. The next full day, make it clear which activities are most suitable for younger children.

Invest in publicity
Build up publicity with a real-feeling story in advance. For example, create short videos as fake news reports where astrophysicists, politicians and ‘people on the street’ give views about the impending asteroid threat (or similar threat if the scenario changes). Send emails into schools setting them the challenge to be prepared, which teachers can use in the classroom. Make a relationship with a local newspaper and blogs to distribute the ‘news reports’. Involve a group of young volunteers to seed the story in social media e.g. create an ‘asteroid survival group’ on Facebook. More use could be made of platforms such as Snapchat and Instagram to involve and appeal to young people before and during the event.

Managing the event: More visitor information
More volunteer greeters are needed, explaining the activities and directing participants to them. Volunteers would then have a clearly defined role and be easier to manage. In addition, a future event would benefit from a main front desk and/or poster clearly signposting a map, and who to ask.

3. What is SMASHfestUK?
SMASHfestUK is a brand new kind of science and arts festival designed to widen participation and build diversity in science, technology, engineering and maths (STEM) by engaging young people and hard to reach audiences. It piloted in Deptford, south east London during the February half term holiday in 2015. Part sci-fi, part horror and post-Apocalypse, the festival is themed around a gripping story in which an asteroid is on a collision course with Planet Earth and a zombie invasion ensues. Visitors were invited to plan for Armageddon, by trying a wide range of activities over one week. This included preparing for survival, singing for their lives at the End of the World Cabaret, creating a time capsule or taking a trip to the Intergalactic Travel Agency.

The programme was very rich and detailed, with around 27 different activities or events, many constantly available or repeated daily over a week. It included exhibitions, comedy shows, art activities, hands-on science, films, talks and parties. See the full programme here: http://smashfestuk.com/events/

In the run up to the festival, there were also four workshops/talks in four local schools (two primaries, two secondaries) reaching at least 1200 children. Other events included a presentation at the Lewisham Youth Festival and a very successful open day at Tottenham University Training College.
SMASHFestUK is the creation of science TV production company The Refinery, and is partnered by the Stephen Lawrence Charitable Trust, the Wellcome Trust, Middlesex University, and the Royal Observatory Greenwich. Other partners included the main venues, Albany Theatre and Deptford Lounge.

The rationale is that over the next decade, the UK is heading for a shortfall of more than 50,000 workers for the STEM sector, but only 15% of students aspire to science careers. In boroughs like Lewisham, the school population comprises almost 75% black and minority ethnic students. Yet black students identify even less strongly with science as a career aspiration, because of its overwhelmingly white, male, middle class image of science, and the multiple inequalities they face growing up. Science festivals are too often driven by the corporate and academic agendas, so that young people do not recognise themselves or their own lives and interests in the image they present.

4. Audience data

The charts below are taken from the data we compiled at the event using feedback forms and tally sheets. We have only been able to do a very basic analysis of this information in the time given, but the full responses and data are also available in an excel spreadsheet as an appendix to this report.

4.1 Numbers of participants observed

Tally sheets were left in all areas of The Albany and Deptford Lounge on both the Monday and Wednesday for facilitators to fill in. The total number of people taking part in activities on Monday was 453, and Wednesday was 754. It is important to note that this cannot be interpreted as the number of visitors to SMASHFest as most people took part in more than one activity. It is more useful for us to look at this information in terms of the numbers of
participants taking part in each activity, which we have presented below as charts. Further information for some activities was recorded relating to numbers of BAME and females under 18, this can be found in the Excel spreadsheet supplied to you separately but data was too sparse to be usefully analysed in chart form:

**Monday - Total number of attendees (per activity)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comedy Club for Kids</td>
<td>90</td>
</tr>
<tr>
<td>Mind's Eye</td>
<td>74</td>
</tr>
<tr>
<td>Intergalactic Travel Bureau</td>
<td>51</td>
</tr>
<tr>
<td>Asteroid Emergency</td>
<td>50</td>
</tr>
<tr>
<td>Dr. Death</td>
<td>44</td>
</tr>
<tr>
<td>Hairpocalypse</td>
<td>40</td>
</tr>
<tr>
<td>Survive Supermarket Sweep</td>
<td>40</td>
</tr>
<tr>
<td>People's Ark</td>
<td>39</td>
</tr>
<tr>
<td>Free Cinema</td>
<td>20</td>
</tr>
<tr>
<td>Headbox</td>
<td>5</td>
</tr>
</tbody>
</table>

**Wednesday - Total number of attendees (per activity)**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>God's Eyes Monster Smash</td>
<td>120</td>
</tr>
<tr>
<td>Asteroid Emergency</td>
<td>75</td>
</tr>
<tr>
<td>Microbeats</td>
<td>60</td>
</tr>
<tr>
<td>Intergalactic Travel Bureau</td>
<td>51</td>
</tr>
<tr>
<td>Hairpocalypse</td>
<td>50</td>
</tr>
<tr>
<td>Headbox</td>
<td>50</td>
</tr>
<tr>
<td>Survive Supermarket Sweep</td>
<td>50</td>
</tr>
<tr>
<td>Zombie Generator Unit</td>
<td>48</td>
</tr>
<tr>
<td>People's Ark</td>
<td>42</td>
</tr>
<tr>
<td>Mind's Eye</td>
<td>38</td>
</tr>
<tr>
<td>Build a nano mini-beast workshop</td>
<td>25</td>
</tr>
<tr>
<td>End of the World Posts Workshop</td>
<td>25</td>
</tr>
<tr>
<td>Microscope</td>
<td>20</td>
</tr>
</tbody>
</table>
4.2 Age and sex

57 feedback forms were filled out during the event, the people responding were asked to record the age and sex of everyone in their group. The below chart therefore gives us a snapshot of the people attending the event:

As a comparison, the facilitators of the Supermarket Sweep activity recorded the same information for people taking part, many of whom had not filled out a feedback form. This shows a correlation in the majority age group being ages 6 to 10, presumably accompanied by parents in their late 20s and mid 30s:

4.3 Postcodes
The below chart amalgamates the postcode data from all available feedback forms and tally sheets. We have concentrated on the postcodes for which there was more than one response:

In addition each of the following postcodes had one response: CR2, DA5, E6, EH41, EH8, ES8, N3, NW9, RM2, RM25, SE1, SE12, SE18, SE24, SE28, SE32, SE45, SE5, SE9, SW16, SW9, TN14, TR1.

4.4 Art vs Science

The feedback forms asked people to rate themselves from 1 to 10, where 1 = ‘really arty’ and 10 = ‘really sciency’. While most people rated themselves in the middle – indicating they were interested in both aspects, there was a slight lean towards science for the people who we spoke to in the Albany:
4.5 Likes and dislikes

Feedback forms collected at the Albany rated ‘Dr Death’ and ‘Kids Comedy’ the highest, while feedback forms from the Deptford Lounge almost unanimously rated Supermarket Sweep the highest:

People really enjoyed the event and many were reluctant to say that they had enjoyed anything ‘the least’. Interestingly Kids Comedy attracted the most votes at 5, despite also being one of the most popular. We can’t see a correlation in the data to attribute this to (such as age of respondee or date) so can only assume that these particular people enjoyed other activities more:
4.6 How did you know about SmashFest?

We asked via the feedback form how people had found out about the event. The majority (28%) had found out through word of mouth, and an equal number (14%) had either looked for something to do in the area, or were using the library anyway and came across the event:
Breaking this down further by date we can see that the word of mouth visits increased by Wednesday, and that the majority of people who said they were regular library users were surveyed in the Deptford Lounge, suggesting they may not have ventured into other sites:
5. Feedback from performers and facilitators

5.1 Evidence of positive experiences

The event had a lively feel that fitted well with the community context. The overall theming worked well and allowed a lot of flexibility in the choice of activities and subject matter. The event was well attended and the audience were enthusiastic. Howie Watkins

Great event, really was an honour to be able to participate and give something back to the local community. Rifat Hasan, Security

Both shows were a lot of fun. Lovely audiences for both and really enjoyed myself... Had a few parents tell us after the show that both they and their children had enjoyed it and several stuck around after the show to get autographs from the acts, which was nice. Tiernan Douieb

I got lots of laughs so I guess that was good! I also got a few positive tweets after the careers event. Sheila Kas

A lot of thought went into supplying a packed programme of varying activities - certainly on the Monday and Wednesday the children looked like they were having a lot of fun. The party atmosphere on the Sunday was highly enjoyable too. Cat McGahey

Of the six activities, Howie Watkins supported, the most popular was looking at cells (e.g. from onion skins) through a microscope. It was expanded and the timetable altered to allow for its popularity.
When I was stood outside one of the theatres as they all came out after a show, I announced the next event happening in ten minutes. One child looked so excitedly and was pulling his father along. He smiled and looked at me and said "He’s never been to so much theatre before!" which I thought was lovely - this was great on several levels because not only are we entertaining the children during half-term, we’re keeping it educational and introducing them to science, but also introducing them to the theatre generally. Cat McGahey

I really enjoyed participating in one of the evening shows and I could tell that the audience members were enjoying themselves too. Holly Rogers

There was a constant supply of children to be made up into zombies! They all seemed happy campers.. Lots were positive. I even had some people that had been in zombie films turn up to chat to me. Nicholas Thompson

5.2 Younger audience than targeted

This caused challenges for many of the presenters/facilitators.

For example, Howie Watkins altered one of his shows for older children to include more material suited to young children, but then (because they liked it so much) the same children saw some of the same material when they came to a second show that had been specifically designed for a younger audience.

They were mostly well behaved but a few had trouble concentrating and were running about a bit. Tiernan Douieb

We were under the impression that our audience was going to be teenagers but in general it was primary school children and their mums...I don’t think it reached the target age group and the publicity could have been better. Louise Dawson/Professor Kneebone

The evening shows could have been earlier in the evening, to cater for younger family audiences. Holly Rogers

5.3 Signage and space issues

Getting the audience to the room we were located within... It would have been good to have had better signage within the venue, or better yet be situated somewhere less out of the way. Jen Wong, Guerilla Science

5.4 Good experience working with organisers

Rifat Hasan, Security, said Communication and client liaison was great.

We were so well looked after by all the lovely SmashFest team which was really appreciated. Thanks very much for having us! Tiernan Douieb
The whole team were very welcoming and enthusiastic and got everything I needed without question. Sheila Kas

The theatre and Smashfest seemed to work well together, they were very supportive and friendly. Jen Wong, Guerilla Science

I thought the team behind SMASHfestUK did a phenomenal job and it was a pleasure to volunteer to assist in any way I could. Cat McGahey

The organisers have a huge vision and endless amounts of energy, which was just so impressive to watch take shape, and I was so thrilled to be a part of SMASHfest! Holly Rogers

Nothing would have happened without an amazing effort from all the team members and contributors, especially the super-humans Lindsay and Wyn who carried us all along the journey! Bogdan Maran

It was a long day, but really enjoyable and the staff were all really welcoming and helpful. Nicholas Thompson

5.5 Suggestions for improvement made by presenters/facilitators

I would recommend concentrating activities on one day, or a weekend, rather than dispersing them over the course of a week. This would make the proposed narrative clearer. Jen Wong, Guerilla Science

A little bit more communication from the organising team, both during the planning stages and during the events themselves – it was sometimes a bit difficult to know exactly what was expected from me, and no running order available on the night. Holly Rogers

Cat McGahey made three suggestions:

- Stands or coloured posters with a map of the events and map on the programme.
- More prior marketing to engage the secondary school age group.
- Collaborating with supermarkets or local shops to get their branded goods in the Supermarket Sweep, as a form of sponsorship.