

Project title: Festival of Science and Culture 2005

Length/time: Eight months

Overall purpose (why is your organisation involved in this project?): The Festival of Science and Culture 2005 will celebrate cultural diversity in scientific achievements with all communities, and aims to raise the aspirations and attainment in science of ethnic minority groups currently disaffected from science.

Aims:

- Attendance of target audience at a 5-day festival to celebrate cultural diversity in scientific achievements and a programme of education events in the months leading up to the Festival, centred upon applied science and technology, thereby increasing access to informal science education for the target audience.
- Raised aspirations and achievements in STEM among the underachieving ethnic minorities (and their families) by providing access to positive Black role models at the National Space Centre and through video conferencing and outreach visits.
- The promotion of community cohesion through raising awareness of the role that ethnic minorities have played in STEM (science, technology, engineering and maths) achievements.
- Increased involvement by the business, political and education community, after-school providers and community groups in an inspiring event.
- Training and motivation of mentors/community group/after-school group leaders in science communication methods.
- A network of contacts and resources, including a website and activity ideas, celebrating ethnic minority contributions to STEM to support students and educators in and out of formal education.
- The recruitment of ethnic minority Science and Engineering Ambassadors (SEAs) with support from the SETPOINT network and community organisations.

Project description (including target audience):

The Festival of 2003 was a huge success and many diverse organisations across the country, as well as the National Space Centre, are eager to see and support a greater Festival being delivered in 2005 that builds on the achievements made in 2003. The 2005

Festival will maintain the best aspects identified by the previous Festival team, such as access to positive role models and a 'Heroes from History competition', and act on the 22 recommendations made in the summary report, such as widening its scope and increasing lead-up time.

The National Space will deliver the Festival of Science and Culture 2005 from the 9th – 13th March 2005, coinciding with National Science Week. This will be the culmination of a series of UK-wide initiatives that can be used to maximise national promotional opportunities in the lead-up to the Festival.

The Festival will last five days, to ensure suitable access to role models for audiences both at the National Space Centre and at appropriate centres in other regions. The Festival will be the peak of a longer initiative that enables the provision of support before and after the main event, ensuring the widest audience is reached and the project has a lasting impact.

As with last year's event, the Space Centre has recruited a Project Officer to coordinate the Festival, create, manage and support relationships with audiences and partner organisations, and evaluate its impact. In 2003 the Project Officer was only part time. This year, the Space Centre has recruited a full time Project Officer, funded by COPUS. Alongside the Project Officer, an independent evaluator will also support evaluation.

The main target audience is African Caribbean and Mixed Heritage, Bangladeshi and Pakistani and disenfranchised young people for the purpose of aspiration raising and to engender a positive interest in science – the lead-up activities will focus on these groups and role models will mostly share these cultural backgrounds. Family audiences from these cultural backgrounds will also be targeted to help change attitudes towards science, and aspirations in general, among parents and potentially to inspire life-long learning. Other socially excluded communities, such as the Somali community, will be targeted for community cohesion purposes. Again, these communities have target audiences that fall within either the groups or family categories. Ethnic minority groups who typically underachieve in science at school and are underrepresented in most scientific careers. These groups include African Caribbean and Mixed Heritage, Bangladeshi and Pakistani communities. Disenfranchised education groups will also be targeted and these will include very mixed ethnicities, including young white people. Also, ethnic minority groups who are at risk of social exclusion, specifically new arrivals, including Somali and Kenyan communities. This audience will mean targeting families, community networks and groups, after school clubs and disenfranchised education groups. After school and community groups cater for wide age range in young people, often from 6 up to 16 year old, so these age groups will be targeted.

Media partners with key audiences that match our target groups, such as the Voice Newspaper, or BBC Asian network, will be important to the success of the project and will be approached early through existing contacts. The Space Centre will also approach businesses for in-kind support for the festival, such as extra transport, catering and prizes for competitions.

- **Outcomes:**

- Raised aspirations and achievements in STEM among the underachieving, ethnic minorities and their families.
- Promotion of community cohesion through raising awareness of ethnic minority STEM achievements.
- Involvement by the business, political and education community, after-school providers and community groups in an inspiring, educational activity.

Follow-on activities from this project:

The first Festival in 2003 raised the concern that these "one off" projects had no real impact, and that to make a difference, such initiatives had to be taken on a regular basis, as only continued interaction would build sustainable relationships. The National Space Centre will not only run the Festival of 2005, but plans to continue such relationship building with the Kalpana Chawla Foundation. It has been set up to honour the memory of Dr Kalpana Chawla who died in the Columbia Shuttle disaster in 2003. The foundation will use her achievements to celebrate diversity in science and to inspire young people to aim higher in education.

Key barriers and how were they overcome:

Paralysis: The fear of being politically incorrect and not knowing how to approach such sensitive issues without skirting from the point.

The target audience's current perception of science: Many groups and group leaders feel that science is not something that will engage young people from disenfranchised groups. Taking a new approach by emphasising on the positive aspects of stem related careers and subjects directly relevant to the target audience, and then making involvement in such activities easy and cost free helped to recruit them. Providing travel bursaries has also improved participation numbers.

For the Festival of 2005 it is important that we also try to educate not only the young people from the target audience, but to educate those who work at the "grass root" level such as the youth workers themselves.

Making positive role models accessible and seen helps the target audience to identify with successful people "just like them" and this makes them more susceptible to a change in negative mindset, and in some cases encourages them to aspire to be like them.

Not knowing where to find these groups: Many of the target audience related community groups and after school centres are fairly difficult to locate. Locally, when trying to find them it is not so difficult, for you can consult well-known community members who can help you. However, trying to find these groups based nationwide can be very arduous. To have a nationwide network of all Black and Minority Ethnic community organisations would make such projects much easier. As part of the Festival of Science and Culture over the last two years, we have been developing a database of BME community groups, which we will continue to develop through the Kalpana Chawla Foundation.

A lack of relevant resources: It also proved difficult trying to find resources that could be used for research purposes, and finding positive role models from today rather than

history. This problem still exists today, though campaigns like NOISE and RESPECT (as part of the ACNST), and organisations like SETPOINT are all actively working to recruit and reveal these role models.

Funding: A lack of money to pay for transport, staff support and other incidental expenses is a major barrier to community group engagement and participation.

The time needed to engage the target audience: relationship building is crucial; time spent on nurturing engagement is key to the achievement of raised aspirations within the target communities. This also leads to resource issues in terms of staffing and time, which again raises the point about funding.

Evaluation method:

For the Festival of 2003, qualitative feedback in the form of general comments collected during the Festival was combined with both qualitative and quantitative responses from a questionnaire.

It was decided that the most important aspects to evaluate were group leaders' thoughts on the effect role models had on an individual's attitude towards science, and whether the presence of role models from the target audiences would have a lasting positive effect on an individual's attitude to studying science.

Participants indicated that they believed that celebrating the achievements of the target audiences evoked a great deal of pride and joy that they were finally being recognised and show cased for the general public.

For the Festival of 2005, the National Children's Board shall carry out formal evaluation for the event, which will be available in May 2005.

Tips and lessons learnt:

Strong relationships count: There appears to be a certain level of distrust amongst groups, who feel that such projects as this are in fact themselves a barrier, because there is a lack of sustainability and they are too restrictive. In order to build strong relationships, they have to trust that you will continue these efforts in the long term.

Quality interactions: The Project Officer and the Steering Group (the committee containing representatives from the target communities, to advise in the key decision making process and to ensure the fulfilment of the objectives of the Festival) play a key role in developing relationships with the target groups. The Steering Committee provide guidance for the Project Officer as to how to approach groups and maintain relationships. The Project Officer acts to nurture these relationships, and build them to make them as strong as possible. It is important to this relationship building that continued efforts be made by the organisation to sustain such relationships and to not discard them after specific projects cease.

Time support and targeted resources: The Festival of 2003 raised the issue that we needed longer for the project and more input. This has led to the appointment of a full time Project Officer for eight months to take a lead in the delivery of the project.

Early awareness of the Project: Even if the information available about the event is limited, it should be made available as soon as possible. This will mean that groups/role models/speakers are not already pre-booked and are able to attend.

Budget (including staff time):

| Less than 5K | 5-10K | 10-20K | 20-50K | 50K+ |
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