

# Chairman's Report & Evaluation 2016



20th April 2016

science4 your  
**Future** >>>  
*showcasing exciting careers in science*



**#science4u2016**

The 13th Annual Schools Science Conference  
Presented by [science4u.info](http://science4u.info)  
in collaboration with University of Westminster

# Science for Your Future

The 13th Annual Schools Science Conference | Presented by [science4u.info](http://science4u.info) in collaboration with University of Westminster | 20th April 2016



## Chairman's report

On the morning of 20 April almost 180 volunteers prepared to describe to approximately 180 secondary school students the role of science in the world at the 13th Annual Schools Science Conference, **Science for Your Future**. Registration was swiftly followed by some brief housekeeping guidelines and then students went straight into their programme sessions.

The theme, **Science for Your Future**, was chosen as it highlights the exciting scientific developments that are changing all our futures. The results of the 100,000 Genomes Project mean that in the future all babies may have their DNA sequenced at birth. Pluto has been imaged by a space probe; Mars trips are being planned. New treatments are being developed for cancer. Bacterial viruses may replace antibiotics.

We were delighted this year to have our keynote speaker, Vivienne Parry OBE, who is a science writer and broadcaster and has a part-time role as head of engagement at Genomics England which is delivering the flagship 100,000 Genomes Project. She has reported on developments in medicine and science for the BBC and newspapers like the Times and Guardian. Vivienne talked about some of the most exciting science she has covered in her career as a journalist for the BBC and also about the 100,000 Genomes Project which she calls the 'most exciting project I have ever been involved in'. Her talk was very well received by students who were excited and inspired by her.

These were the exciting sessions:

### **Pathology for the Future**

Presented by the Royal College of Pathology

Did you know that pathologists perform nearly 900 million health tests each year in the UK? In this practical, interactive workshop students learned from pathologists about the exciting new developments in pathology and how they are changing the way pathologists prevent, diagnose and treat disease.

### **Science in Practice - 1 & 2**

Sponsored by the Society for Applied Microbiology

Almost 50 hands-on interactive displays showcased what healthcare and other scientists do. This gave the students a chance to meet scientists, discover what they do and why, as well as trying some of the tasks for themselves. In this informal and fun session, the students were able to see the practical application of what they have been learning in the school classroom and gain an insight into the different career paths available to them. The activities ranged from blood transfusion, microbiology, transplantation, radiotherapy, resuscitation, physiotherapy, perfusion, immunology, histology, haematology, audiology, cardiology, genetics, pharmacy, chemistry to nuclear medicine and much more. There were opportunities to win prizes for participation. The students asked lots of searching questions, including what the scientists enjoyed about their jobs and what qualifications were needed.

### **Chemistry At Work**

Sponsored by the Royal Society of Chemistry

**Chemistry without Borders** Why is Chemistry considered the basis of all science? In this year Chemistry at Work, as part of **science4u**, had a number of interactive stands showing how chemistry is fundamental to the understanding of nutrition, health, materials, biology and medicine. Science for your Future hosted by the Faculty of Science and Technology at the University of Westminster provided the Department of Life Sciences the opportunity to display a variety of aspects of **Chemistry at Work**. The interactive displays included, for example, molecular modelling to predict the impact of chemical pollutants, the use of targeted biochemical techniques as cancer

treatments and the healing potential of plant chemicals. The school students and teachers engaged with all the ideas and developments on display enthusiastically, asking lots of questions, answering quizzes and trying to manipulate chemical models on iPads. The teachers were provided with information sheets that could be used in their classrooms after the event and into other academic years.

## Science for Experimentation

Supported by The Association for Clinical Biochemistry & Laboratory Medicine

Supported by **The Association for Clinical Biochemistry & Laboratory Medicine**. This was an opportunity for the students to present research of their own in order to win the Trophy for the **Don Henderson Award**. The standard of research and presentation was excellent, and the judges had a difficult time in determining the winners, however, Highgate Wood School won.

## Teachers' Workshop - Making it Real

Provided by the British Science Association

Drawing from an EU-wide project, this teachers' session highlighted the best practices for *making science real* in classrooms. In addition, participants were offered the opportunity to get involved in piloting techniques and potentially participating in an international conference next November.

## Feedback

Feedback has been very positive. All teachers found the event was of benefit to their students. Most importantly the students had a great educational time with comments including 'Awesome' and 'Incredible' as well as praise for the speakers and volunteers. Some students wrote –

- "I learned more about science careers and this influenced my decisions"
- "I enjoyed it greatly; I have learned a lot about careers and how life would be in university"
- "It was a very good event; I think anyone that saw it would want to get involved in science"

Of the students who completed the evaluation after the event, when asked whether they would recommend this event to their friends 96% said 'Yes'.

## School Feedback

**Al-Sadiq and Al-Zahra Schools** "Thank you for giving us such a wonderful and unique opportunity where science becomes alive! The students found the whole event thoroughly interesting and enjoyed it immensely. The people running the workshops were exceptionally nice making the students engaged. The volunteers were also very friendly and kind. The presentations enabled the pupils to have a public speaking opportunity and they enjoyed listening to the other presentations. The prayer facilities were a blessing too. Heartfelt appreciations and thanks from us all."

**Acland Burghley** "Myself and my students really enjoyed yesterday."

**Highgate Wood School** "Thank you for your email. The event was well organised and my students found the workshops interactive and enjoyable. They had a great time and day."

**Ellen Wilkinson School for Girls** "Wanted to express thanks on behalf of the staff and students in attendance yesterday for a fun-packed activities day; the students thoroughly enjoyed themselves and have been talking about it all day today!"

The Organising Team are very grateful to all of our presenters for giving their time and for their inspirational sessions. We are also indebted to the **University of Westminster** and our many sponsors.

# Kimberly Gilmour

**Kimberly Gilmour**

Chairman of the Organising Committee

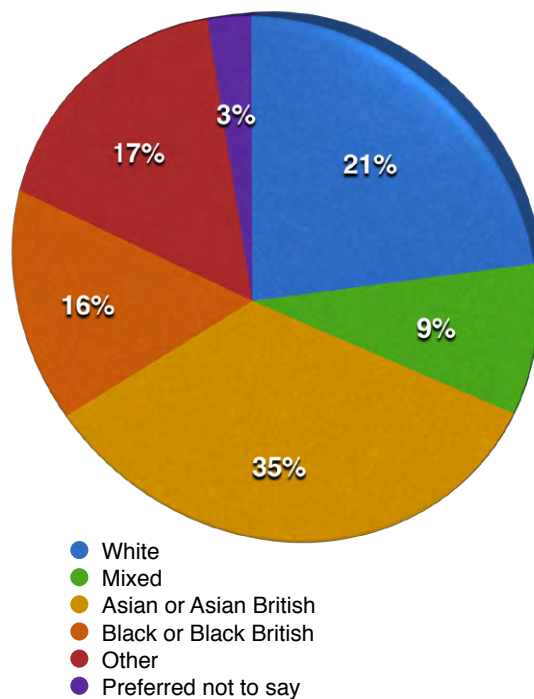


# Evaluation Report

The 13th Annual Schools Science Conference - **Science for Your Future** - was held at the **University of Westminster** on the 20th April, 2016. This is a conversational event aiming to bring scientists and students together to discuss science and science careers. A total of 180 students in years 9 to 11 from secondary schools and colleges across London attended. They were accompanied by their teachers and teaching assistants. The event was organised by an enthusiastic group of volunteers consisting of scientists from various London hospitals, colleges and associated organisations. 150 volunteer scientists mainly from the healthcare sector were recruited to showcase their professions. Students from the Health Protection Agency acted as hosts conducting the students around the different activities. Vivienne Parry OBE kindly gave the keynote speech. The students, teachers and volunteers were asked to complete an evaluation form and this is the summary of the responses.

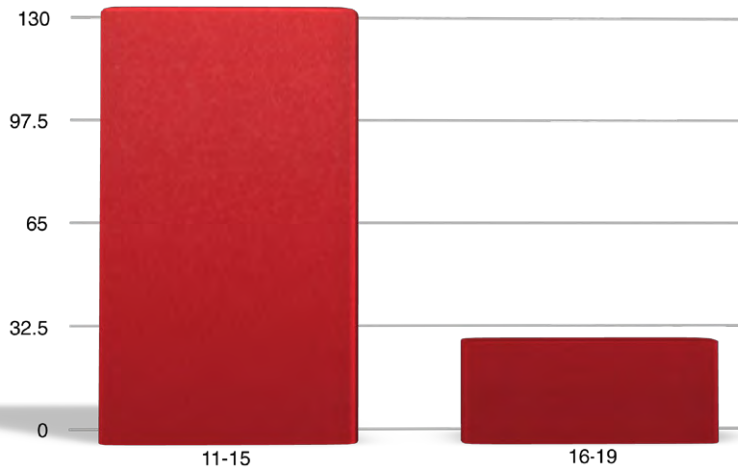
## Diversity

What is your ethnic group? - Overview



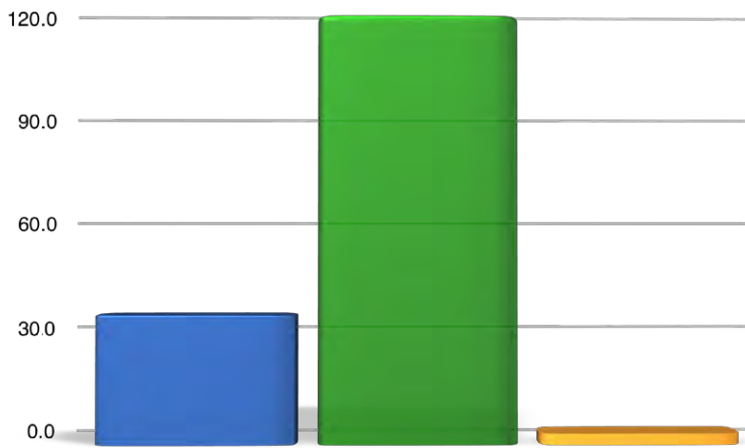


**Age of Students**



**Gender**

■ Male ■ Female ■ Preferred not to say



# Evaluation Report

## Location of schools attending



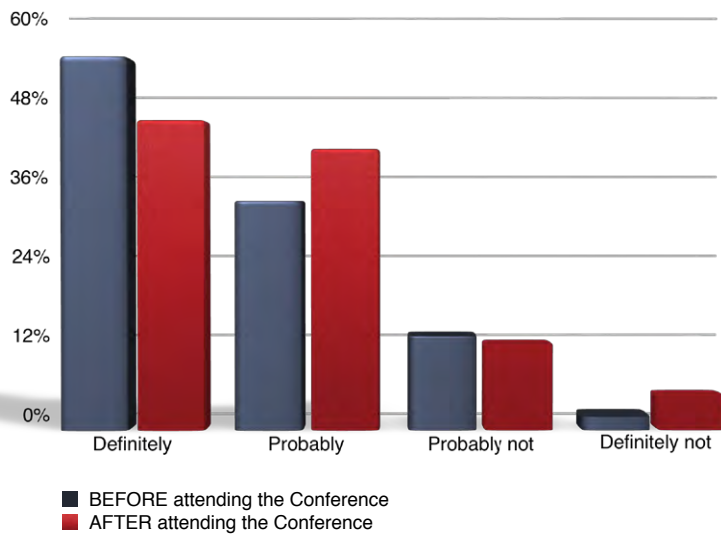
### Attendees

- Acland Burghley
- Al-Sadiq and Al-Zahra Schools
- Barnet and Southgate College
- Bishop Douglass School
- Chelsea Academy
- Highgate Wood School
- Kingsford Community School
- Plashet School
- Preston Manor School
- Quintin Kynaston Academy
- Rokeby School
- The Ellen Wilkinson School for Girls
- Westminster Academy

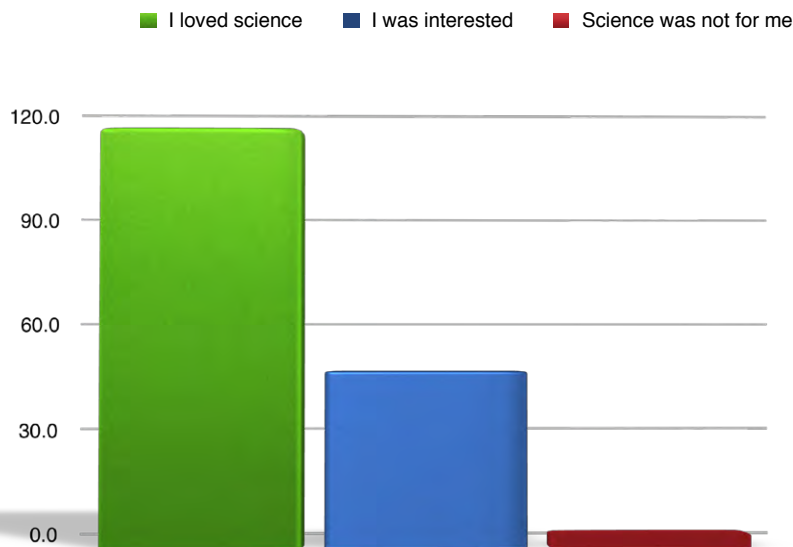


# Students' Comments

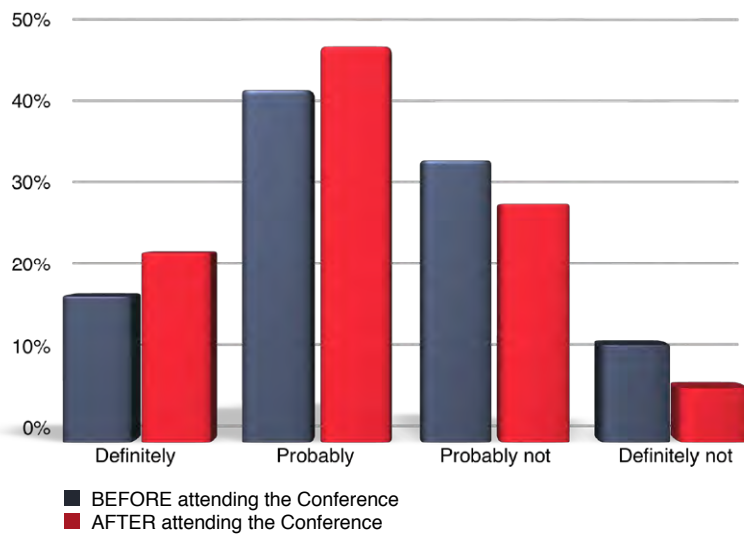
Had you considered a career in science?



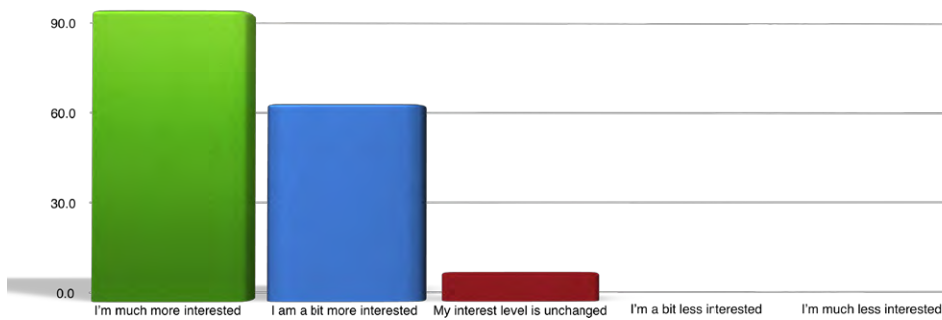
How I felt about Science



### Had you considered a career in healthcare within the NHS?

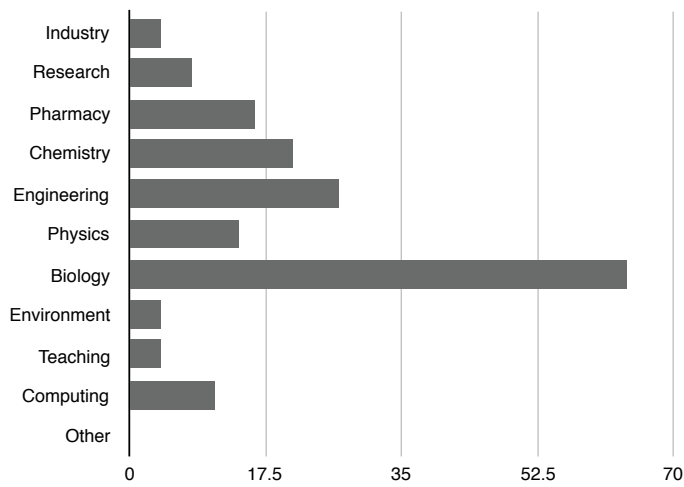


### How has this event affected your interest in science?

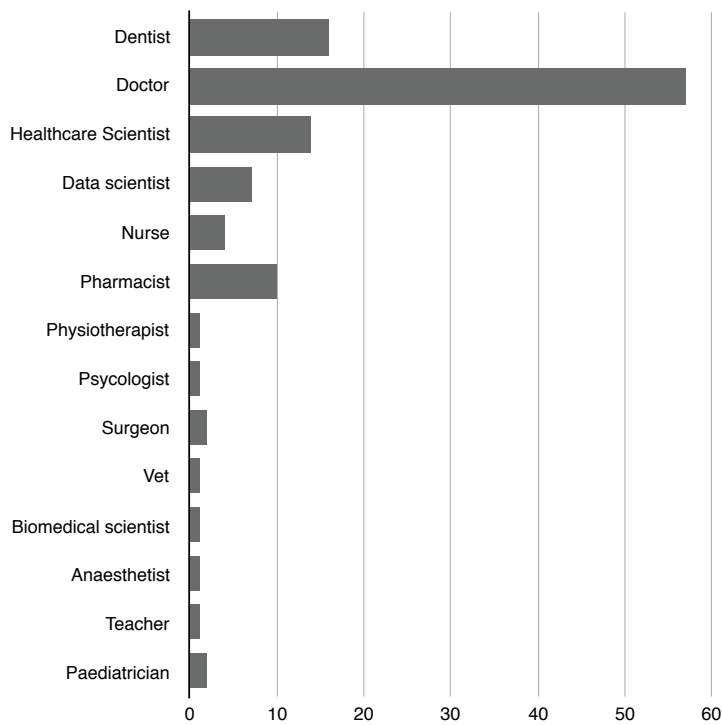




**BEFORE ATTENDING:**  
If you answered definitely or probably, in what area?

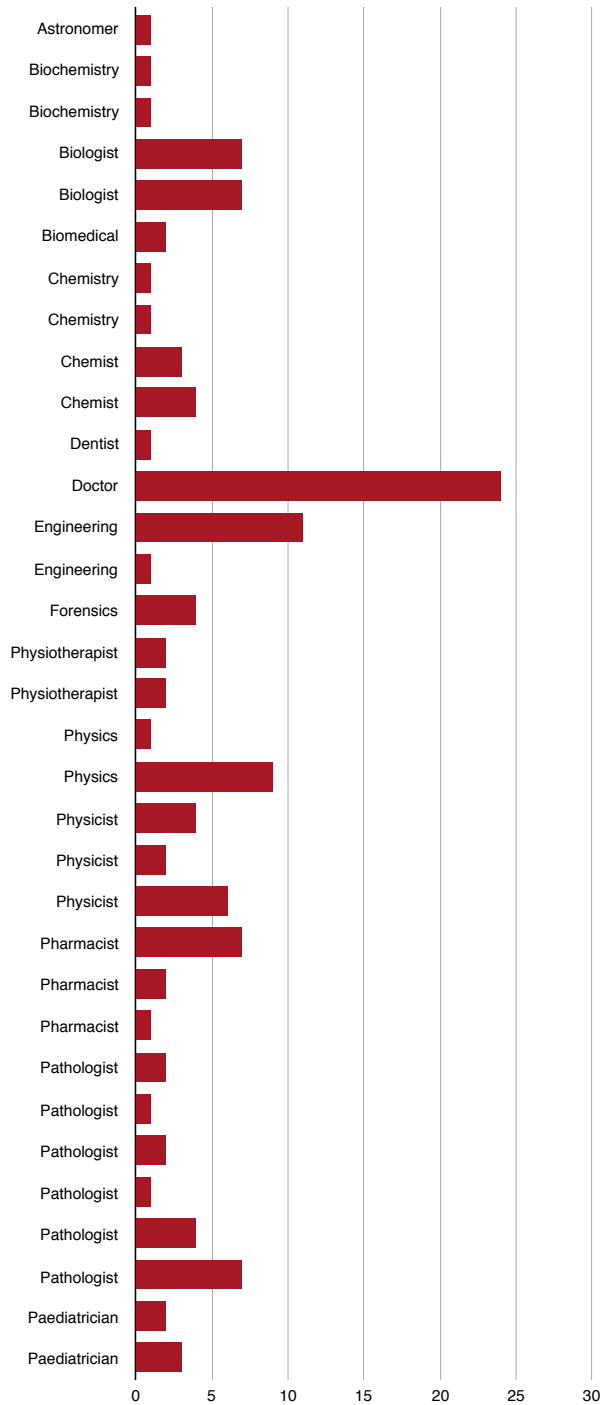


**BEFORE ATTENDING:**  
If you answered definitely or probably, what as?



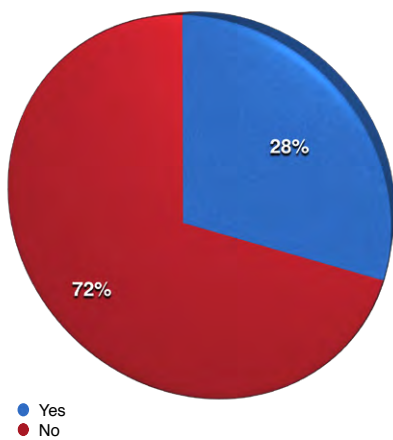
# Evaluation Report

AFTER ATTENDING: Which science careers would you consider taking up in the future?

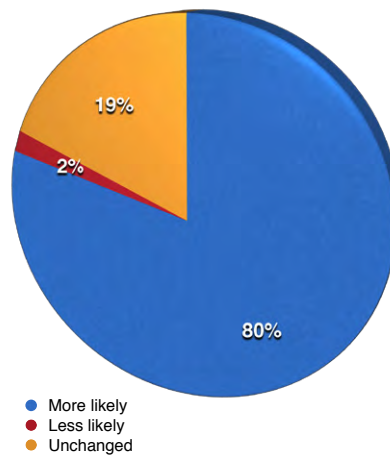


# Evaluation Report

**Were you aware that there are healthcare science careers that do not require a university degree?**



**Are you more likely or less likely to consider going to University?**

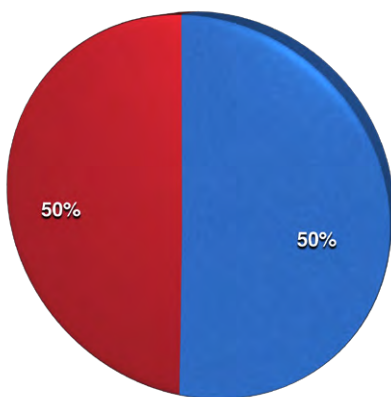


**Are there any comments you would like to make about today's event?**

- Allow more time in the Science in Practice sessions
- Amazing, fun and informative
- Awesome
- Brilliant opportunities to explore
- Enjoyable
- Everything was really nice and interesting
- Excellent staff; really polite and made me say 'Yes' to science
- Exciting, fun, interesting
- For the first session there should have been an engineering stall
- Fun and very interesting
- Fun to present in front of everyone
- Fun, exciting, interesting
- Give us more time to look around the stalls
- I enjoyed it and would like to go again
- I enjoyed it greatly! I have learned a lot about careers and how life would be in university
- I found it interesting
- I found it really useful as well as exciting
- I found the event very interesting and educational. Thanks!
- I found today very interesting; I learned there were many more fields in science than I thought there were
- I learned a lot; it was a good experience
- I enjoyed the detailed activities
- I learned loads and what it is really like to be a scientist
- I learned more about science careers and this influenced my decisions
- I love pathology
- I loved it all; very practical and useful
- I loved Science in Practice 2 and it would be great if it had lasted longer
- I really enjoyed it and it was very informative
- I really enjoyed myself and took the time to understand each topic and expand my knowledge
- I really enjoyed today and want to pursue science
- I think more schools should take part
- Interactive - very funny staff - awesome day!
- It has made me think about a science related degree
- It is very much fun
- It really helped my presenting skills
- It was a good and educational experience for me
- It was a good experience
- It was a nice event
- It was a remarkable and amazing experience

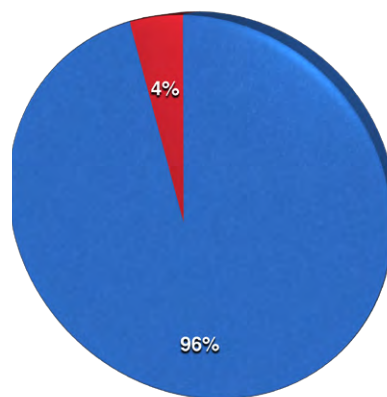


Has this event changed/influenced your subject choices?



• Yes  
• No

Would you recommend this event to your friends?



• Yes  
• No

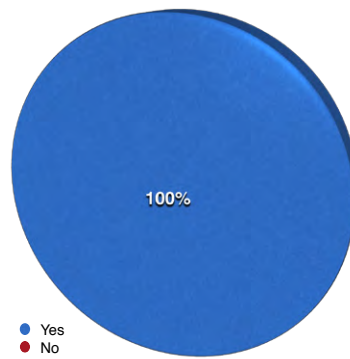
- It was a very good event; I think anyone that saw it would want to get involved in science
- It was awesome
- It was cool
- It was definitely fun to learn new facts
- It was enjoyable going to all the workshops
- It was exciting to see how other people presented their work and how they found out the results
- It was extremely beneficial
- It was fun and I would definitely come back
- It was fun exciting and interesting
- It was fun to present in front of a well behaved and engaged audience
- It was good and fun and I learned a lot about science and science careers
- It was great; I learned new things and the people were really nice and helpful
- It was incredible
- It was interesting and fun
- It was lots of fun
- It was quite interesting
- It was really fun and exciting
- It was really interesting
- It was terrifying doing the presentations
- It was very fun; learned many new things
- It was very interesting and helpful
- It was very unique and interesting
- Learned a lot
- Longer time to look around
- More events like this throughout the year as some students haven't decided what they want to do
- More sweets and prizes
- My experience at University of Westminster has changed my view on science
- Please make the sessions longer
- Really enjoyed it Very exciting and interesting
- Talks should not be too long; workshops were intriguing and interesting
- Thank you
- Thanks :)
- The facts were interesting
- The people were nice and jolly
- This event got me really interested in science
- This was the best day in my life
- Today was very enjoyable and fun; I learned a lot of new things
- Very cool; I enjoyed it a lot
- Very interesting
- Very organised, learned a lot
- Was fun and exciting 9/10

# Teachers' comments

## What was the most benefit to you and your students?

- Meeting industries
- Science in Practice
- All
- Hands-on sessions
- Information
- Increased enthusiasm; brought science alive!
- Workshops
- The different stands and science represented
- Interactive workshops; viewing of presentations
- Very engaging talk from scientists
- Science in Practice 1 & 2
- Workshops were amazing; really, really good
- Good activities
- The engagement/excitement of the students, making science real and accessible to the students

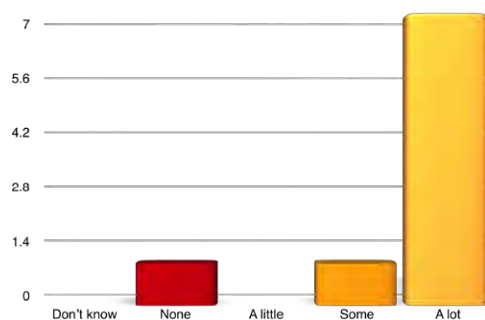
Was this event useful to you and your students?



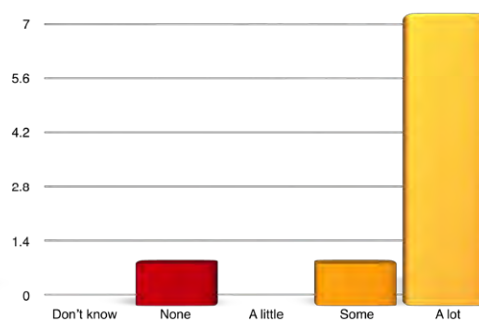
## What was of least benefit to you and your students?

- Launch, Pathology for the Future
- None
- Presentations - some science errors made
- Presentations
- Long day
- Science for Experimentation
- Pathology for the Future
- Need more time in Science in Practice
- Timing should be better organised
- Keynote speech: teachers loved it but perhaps not accessible by all pupils
- Activity/information in workshop not accessible to the students

If your school has attended one of our previous events what impact did it have on those students' subject choices?



If your school has attended one of our previous events what impact did it have on those students' career aspirations?



## How could we improve this event for you and your students?

- Better timing as lunch was rushed
- Checklist/details of different stations beforehand so students can target areas of interest in each room
- Maybe reduce the overall time slightly; student and teachers were very tired at the end
- More active lecture from keynote speaker
- More interaction workshops; all students enjoyed this
- More interactive stalls
- More structure; interaction accessible to students
- More time in Science in Practice
- Provide a simple lunch
- Somewhere to put coats
- The day/activities could be more structured
- Timing was an issue; lunch too short

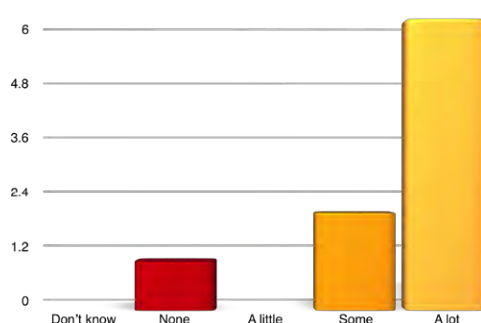
## What issues have you found that have made it difficult to bring your students along to this event?

- We arrived late due to traffic (Westminster Academy)
- Nothing major other than travelling on the Underground
- None (x6)
- Cover issues: cost for larger groups ratio with teachers
- Students carry a lot of baggage
- Early start time: school party travel tickets only valid from 09:30

## Is there anything the organisers could do to make it easier to bring your students along to this event?

- Not really
- No
- No
- Cover cost
- Cloakroom
- Later start time: school party travel tickets only valid from 09:30

If your school has attended one of our previous events what impact did it have on those students' motivation to study science?



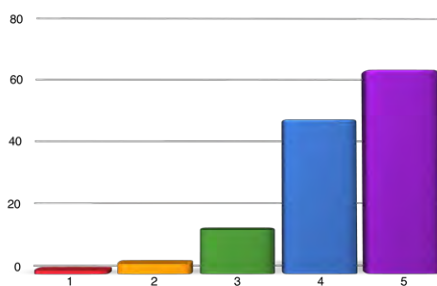
## Do you know of any instances where students attending one of our previous events have chosen a career pathway into science?

- 1 wants to be become vet/ forensic scientist or pathologist
- Most
- Biomedical science
- Radiology medicine
- Radiology medicine
- No, other than known A-level choices

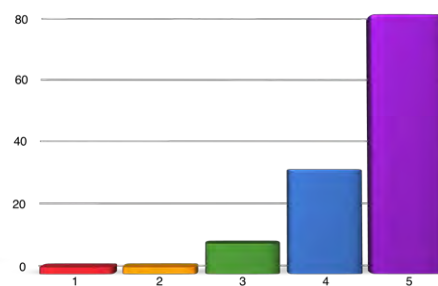


# The Sessions

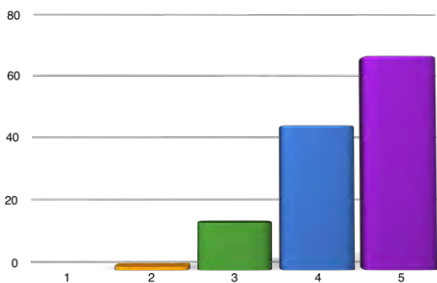
## Students How would you rate the 4 activities?



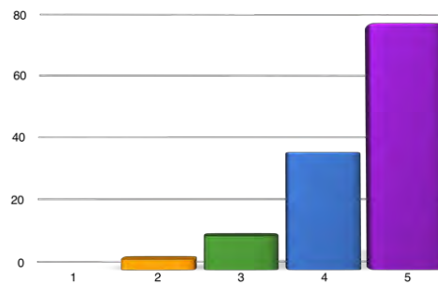
Pathology for the Future



Science for Experimentation



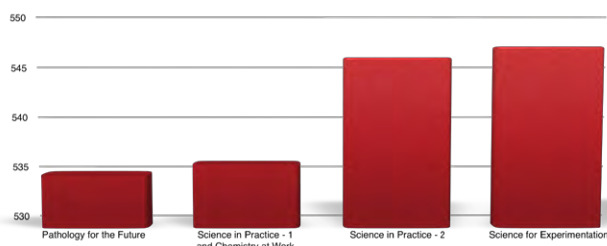
Science in Practice - 1 and Chemistry at Work



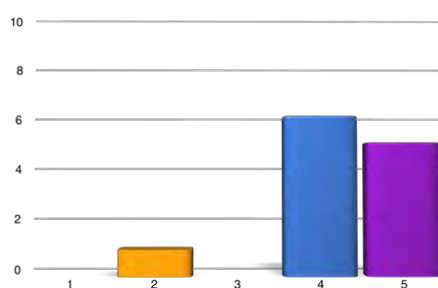
Science in Practice - 2

- 1 Boring
- 2
- 3
- 4
- 5 Exciting

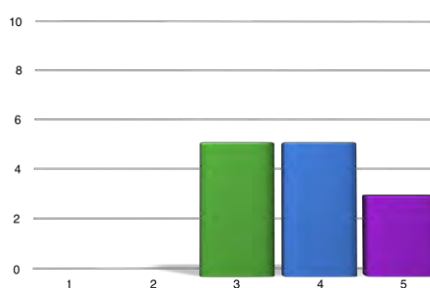
Overall ranking by Students



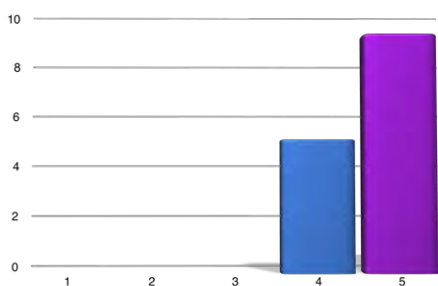
## Teachers How would you rate the 4 activities?



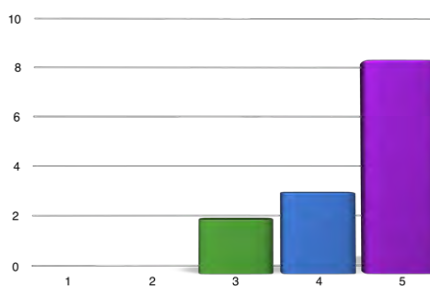
Pathology for the Future



Science for Experimentation



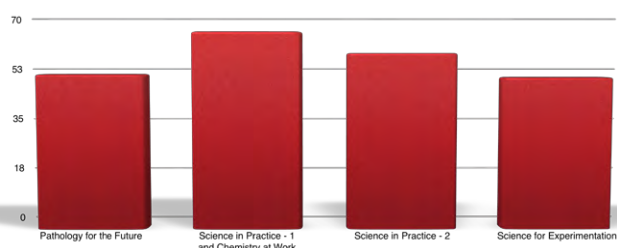
Science in Practice - 1  
and Chemistry at Work



Science in Practice - 2

- 1 Boring
- 2
- 3
- 4
- 5 Exciting

Overall ranking by Teachers



# Volunteers' comments

## Why was the conference useful to you/your organisation?

- A chance to promote our research and encourage young people to consider it as an option
- Allowed student/teachers to become more aware of what PHE are involved in
- Allowed students to hear and learn about HI, its role and function in the NHS
- Beneficial to IPEM as it has increased its awareness by promoting Physics in medicine
- Chance to meet school pupils and staff and to talk about science
- Continuing our support and involvement of trainees
- Creating awareness
- Develop the interest in science
- Display boards were a bit flimsy
- Enabled CPD
- Encourage them to pursue STEM subjects
- Enjoyed teaching the students which I have never done before; it forced me to explain things in more simple terms
- Excellent outreach activity
- Good opportunity to try out different activities with this age group and find out what they do and don't know
- Good to demonstrate and make children aware of cardiac physiology
- Good to promote diagnostic haematology
- Good to raise awareness of healthcare science
- Great to promote healthcare science
- Increased my professional competency
- Informed lots of people about what radiotherapy is
- Interact with other professionals
- Interesting to hear people's opinions, making them aware of our research
- It has also created links and a networking platform that can lead to enhanced collaboration
- It has been beneficial teaching and talking to the students and informing them about the service and basic first aid including CPR
- It has increased awareness in schools of the courses on offer within the University; specifically nutrition and diabetic courses
- It was engaging and fun to deliver
- It was valuable to interact with the students though I don't think our organisation has benefitted from it; students rarely asked questions or showed much willingness to walkabout science or themselves
- Less busy than last year; students that we spoke to were engaged but fewer of them
- Networking
- No direct benefit
- Promoted department and courses
- Provided a platform to reach out to children that may not have known about genetic engineering
- Provided experience for the UoW IGEM team
- Raised awareness of sleep and respiratory medicine; educated staff and students
- Seeing the students
- Sense of achievement, enlightening students about science
- Still a valuable experience. Thank you.
- Students interested in science and were engaged
- Very useful to get feedback from teachers and pupils
- Was attending as a STEM ambassador and not directly representing my organisation
- We have communicated our research to a wider audience



## What have you enjoyed about today?

- Amazingly good overall quality of the presentations
- Appreciate the location of our stand
- Chatting to neighbouring stalls
- Coming up with new ways to explain complex biological theories and ideas
- Engaging with the students and seeing the enthusiasm for molecular biology
- Enjoyed raising awareness of blood transfusion current and future developments
- Enthusiasm and interest from young people
- Enthusiastic students
- Excellent interaction with students
- Explaining what we do for a living
- Finding out how much they know about cardiac science
- Getting a sense of how younger people perceive educational events such as this
- Helping them with entry paths to career
- Hopefully, inspiring students to consider a career in a pathological specialty or medicine
- Interacting with pupils and raising awareness of sleep & respiratory physiology / healthcare sciences
- Interacting with students with no prior knowledge and (occasionally) succeeding in getting them interested in our line of work
- Interacting with the students and their teachers
- Interaction with the students who were well behaved and interested
- Interactive group of students to deal with
- It felt worthwhile talking to them and they seemed interested
- Knowing that we could be inspiring students to study science
- Learning about other disciplines
- Looking at other stands
- Lots of different types of kids and interests
- Lots
- Meeting lots of enthusiastic kids
- Meeting other organisations and learning new information and teaching and talking to the students
- Networking
- Not too big, good length of time
- Organisation was great
- Pre-conference organisation very good
- Really good projects
- Resuscitation demo
- Seeing children learn
- Seeing students get excited about physics
- Talking about my profession
- Talking to kids who were interested in science
- Talking to teachers about engaging kids in science
- Talking to the future scientists about science
- Talking to the students and other volunteers
- The enthusiasm demonstrated by the organisers
- The kids were well motivated and needed little encouragement from us
- The opportunity to explain to them a bit about diabetes which is such a common disease
- The range of disciplines represented
- Visiting other stands
- Well organised and paced

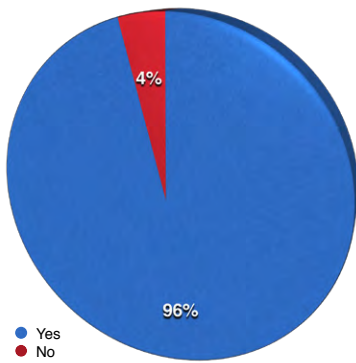
## What can we do to improve the event in the future?

- A bit more space would be better - more or bigger tables
- A great day as always
- Active social media
- Attended the last 2 years; organisation has improved and I am looking forward to next year
- Better attendance! Otherwise, a good day
- Better co-ordination of exhibits
- Better flow of students
- Could do with more students
- Encourage students to ask more questions - Although they were engaged with our activities, it would have been more rewarding to have talked about our work with more students
- Encourage students to visit all stands e.g. with a passport competition where you can collect stamps from each stand and win something - but you may need to give them more time in each room
- Felt quite cramped in the room
- Generally well organised so no further suggestions
- Hard to say
- Have longer in each room
- I'm not sure that the format is very useful - it is certainly exhausting saying the same thing 6 times an hour. I wonder if interactive practicals might be a better way. Certainly a number of students 'loved it' having visited numerous stands.
- Improved space/allocation across rooms
- It is a shame that schools are not able to commit (1 cancelled at the last minute)
- It was fine - better use of facilities this year compared with last year
- It would be good to keep all stalls on one level
- More space, smaller groups, more time per group
- More students
- More students for each session
- More time!
- More volunteers - maybe only 1/2 a day at a time as tiring
- No suggestions - thanks for a great day
- Not have the display boards on the tables
- More activities, more space, better stall engagement
- Perhaps having a 2 minute presentation for each stand would ensure students get exposure at each stand
- Perhaps reception could have been better manned as there was a bit of a queue
- Perhaps there were just a few more students than we could handle
- Some of the groups were very small - only a few pupils, so many stalls were not busy
- The afternoon seemed a bit disorganised; some children only had 10 mins in our room - maybe if the time was longer they would get to see everything
- The afternoon was so quiet, we had barely any students visiting the stand
- The science4u website could have better information about the event for volunteers
- This has been very well organised
- Very happy; big improvement from last year (however, noted there were fewer students)
- Was good, had more space and time than last year
- We brought an ambulance which did not fit in the car park

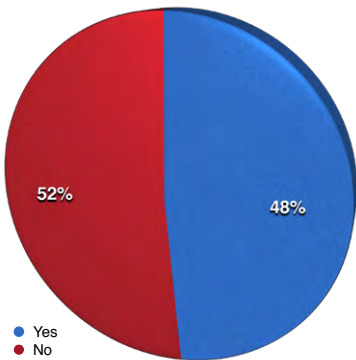


# science4u.info

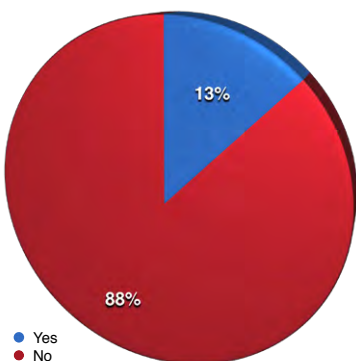
Was this event useful to you or your organisation?



Have you used the conference website?



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# Evaluation Report





# Acknowledgements

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