

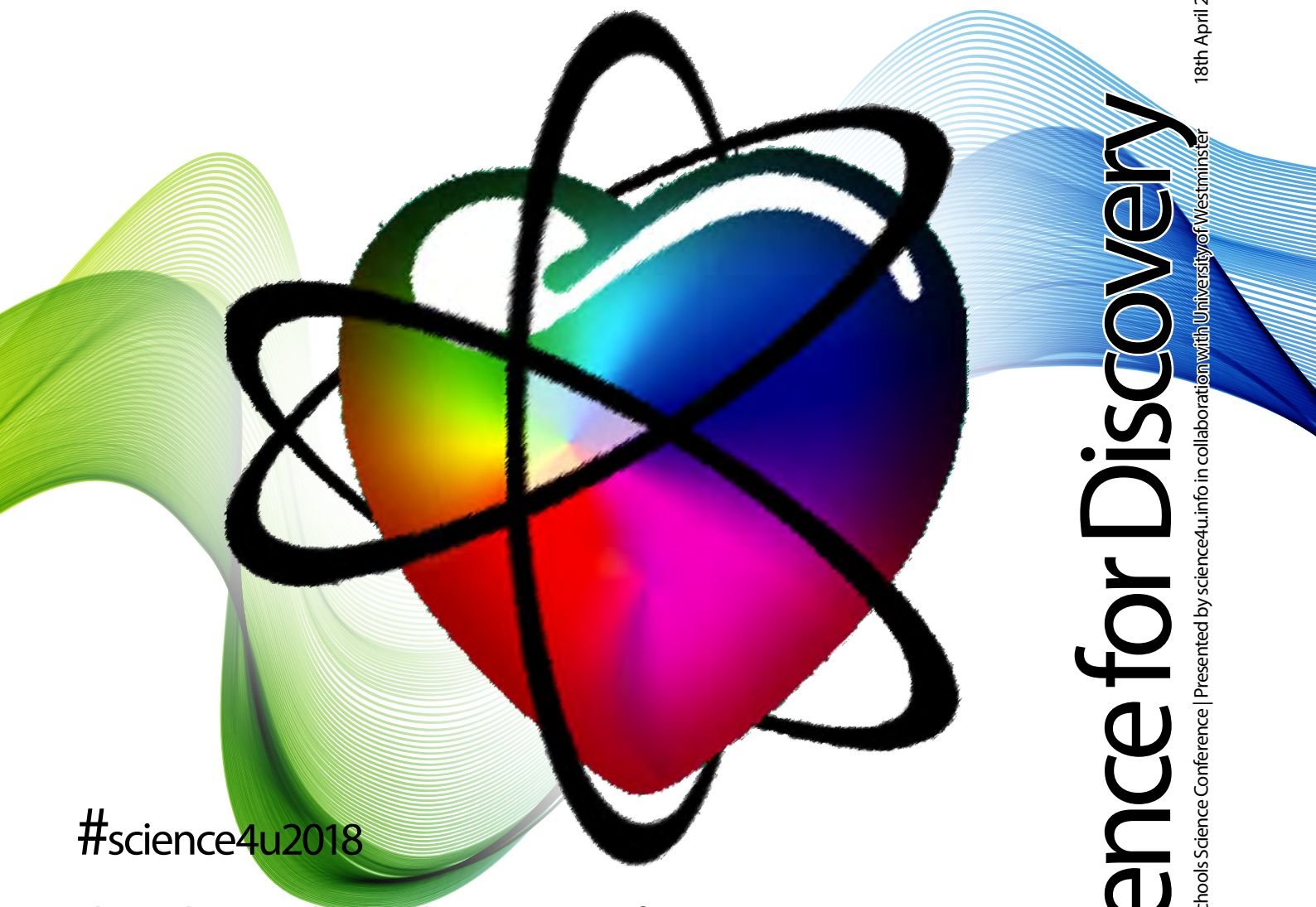
Chairmen's Report & Evaluation 2018



science4 Discovery

showcasing exciting careers in science

18th April 2018



#science4u2018

The 15th Annual Schools Science Conference
Presented by science4u.info
in collaboration with University of Westminster

Science for Discovery

18th April 2018

The 15th Annual Schools Science Conference | Presented by science4u.info in collaboration with University of Westminster



Chairmen's report

On the morning of Wednesday 18 April 2018 almost 100 volunteers prepared to describe to 379 secondary school students the role of science in the world at the 15th Annual Schools Science Conference, [Science for Discovery](#).

Registration was swiftly followed by some brief housekeeping guidelines and then students went straight into their programme sessions.

The theme, [Science for Discovery](#), was chosen as science has always played a vital role in new developments in the NHS; cutting-edge treatments such as gene therapy new diagnostic tests among others. With the current financial constraints future needs have to consider how essential science and scientific development can be delivered in a cost effective manner.

We were delighted this year to have our keynote speaker, Dr Christopher Kelly, Clinician Scientist at DeepMind, the world-leader in artificial intelligence (AI) research and its application for positive impact. Dr Kelly showed some of the work currently being carried out by DeepMind aimed at using AI to transform the healthcare sector - from building algorithms to detect eye disease, to designing technology that detects patient deterioration. He also gave an inspirational message to students that healthcare research is interesting/fun/worthwhile, and some of the routes that they could consider to get into this field.

There were 5 exciting sessions for the students:

Organ Workshop

Presented by the Royal College of Pathology

Do you know where your liver is and what job it does? What about your pancreas? Would you donate a kidney? These are all questions explored at this lively organ-themed workshop. The friendly team of pathologists first challenged the students to work out where each organ is found in the body; then they had fun trying to match the organ to the fruit to guess its weight. They also take part in a group activity about organ donation.

As well as getting to work with pathologists and other medics and scientists, they got to take away info about careers in pathology plus other Royal College of Pathologists freebies!

Science in Practice - 1 & 2

Over 40 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.

Chairmen's Report



The Science of You

Presented by University of Westminster

The Science of You had a number of interactive stands showing how each of us is a product of the science that is constantly occurring within and around us. Increasing our understanding of nutrition, health, materials, biology and medicine to help us know more about ourselves.

Science for Experimentation

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, Leytonstone School won.

Teachers' Workshop

Provided by Robert Cooper, Senior Facilitator and science consultant, Stem Learning Ltd & Sharon Buckley, Primary Science Education Consultancy Ltd, Regional CREST Support Organisation, London

Teachers' learnt what is available for face-to-face and online CPD for teachers in Stem subjects and a wide range of resources to help make lessons exciting and engaging for students. Including opportunities for residential courses in York, Cern Esero Switzerland, and Iceland and courses for teachers to develop their career opportunities with Stem Learning. CREST undertook a ten minute presentation to teachers. During the presentation the structure and benefits of the CREST award scheme were shared and teachers guided to resources and how to apply online.

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 'Very inspiring and informative' and 'Life-changing' as well as praise for the speakers and volunteers.

One student wrote –

This event has left me feeling very empowered and inspired to follow a career in Science in areas such as Pharmacology or Biomedical science - It was one of the best days of my life.

Of the students who completed the evaluation after the event, when asked whether they would recommend this event to their friends 91% said 'Yes'.

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 & Stuart Adams

Kimberly Gilmour & Stuart Adams
Chairmen of the Organising Committee

Chairmen's Report

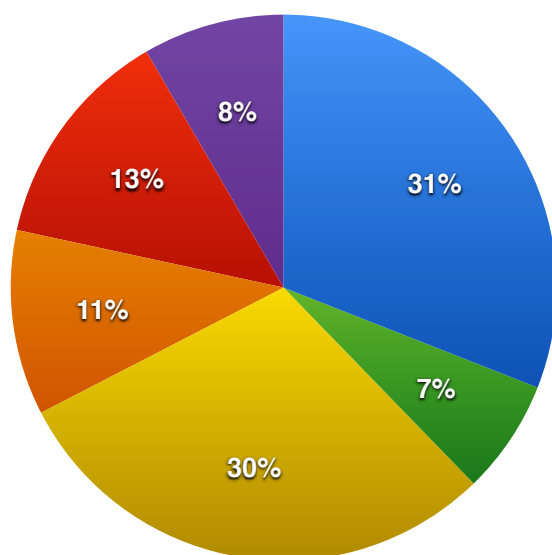
Evaluation Report

The 15th Annual Schools Science Conference - *Science for Discovery* - was held at the University of Westminster on the 26th April, 2018. This is a conversational event aiming to bring scientists and students together to discuss science and science careers. A total of 379 students aged 11-16 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.

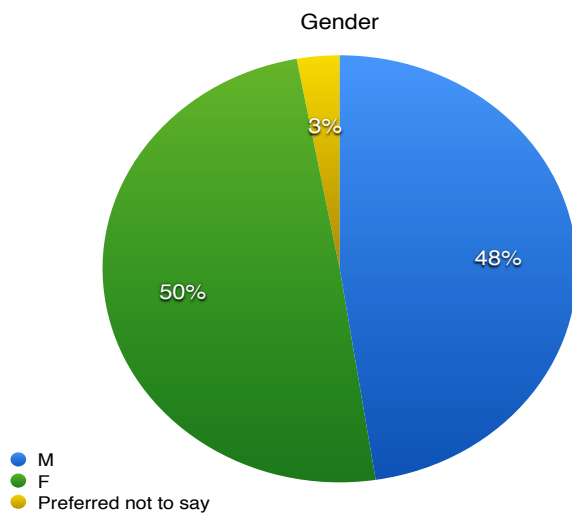
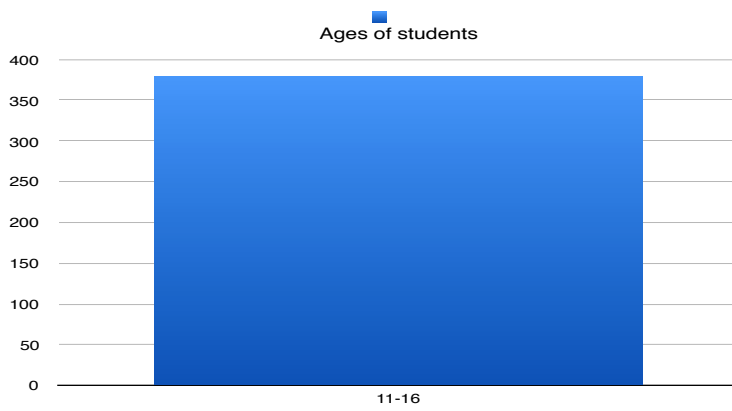
Approximately 100 volunteer scientists mainly from the healthcare sector were recruited to showcase their professions. Students from the Public Health England acted as hosts conducting the students around the different activities. Dr Christopher Kelly, Clinician Scientist at DeepMind, kindly gave the keynote speech. The students and teachers were asked to complete an evaluation form and this is the summary of the responses.

Diversity

What is your ethnic group? - Overview



- White
- Mixed
- Asian or Asian British
- Black or Black British
- Other
- Preferred not to say



Evaluation Report

Location of schools attending

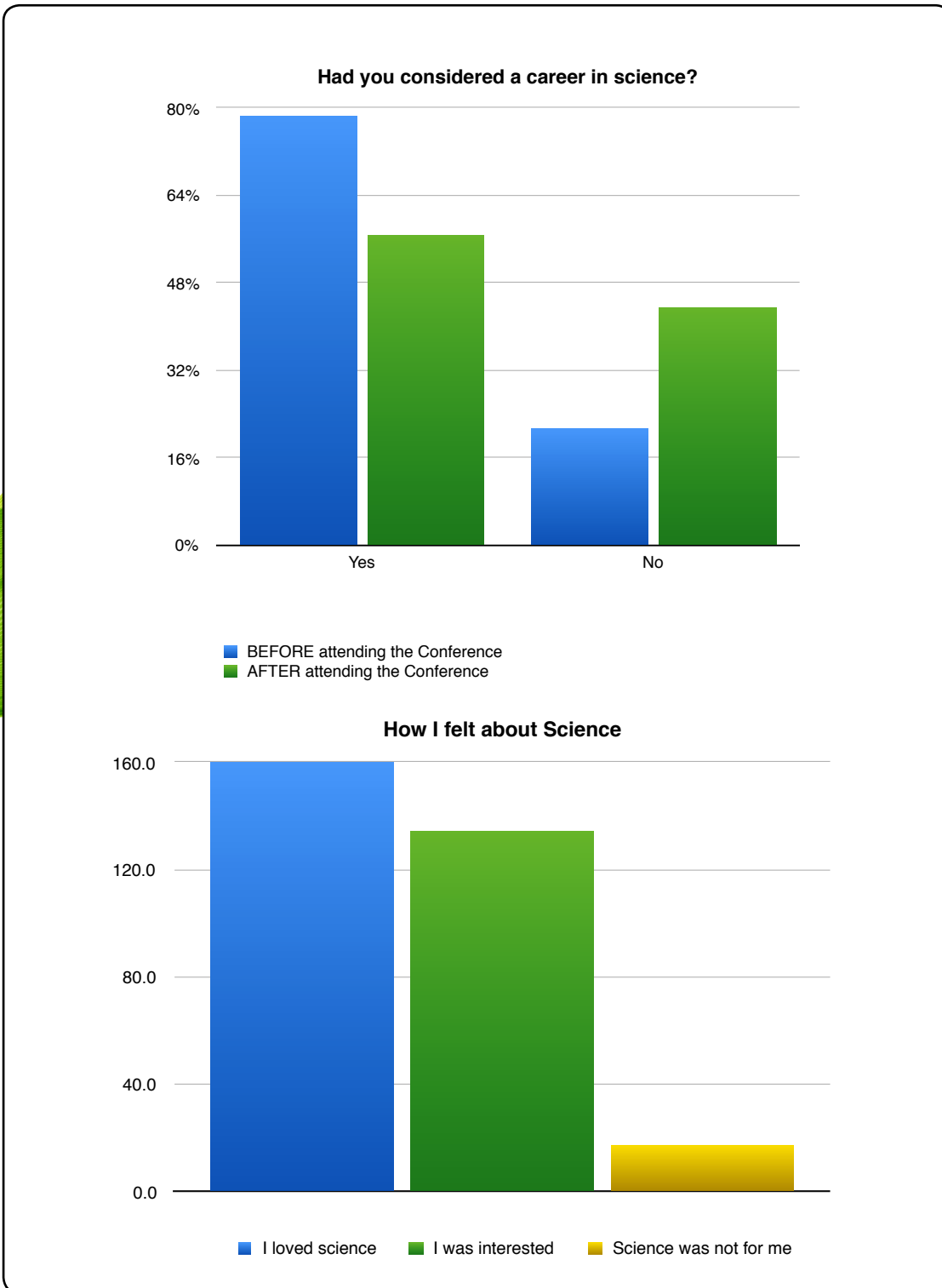


Attendees

- Al-Sadiq and Al-Zahra Schools
- Bishop Douglass Catholic School
- Bishop Thomas Grant School
- Chelsea Academy
- Ernest Bevin College
- George Mitchell School
- Harris Academy St Johns Wood
- King Fahad Academy
- Leytonstone School
- Marylebone Boys' School
- Oaklands School
- Overton Grange School
- Rokeby School
- The St Marylebone CE School
- Wanstead High School
- Westminster Academy
- Winchmore School



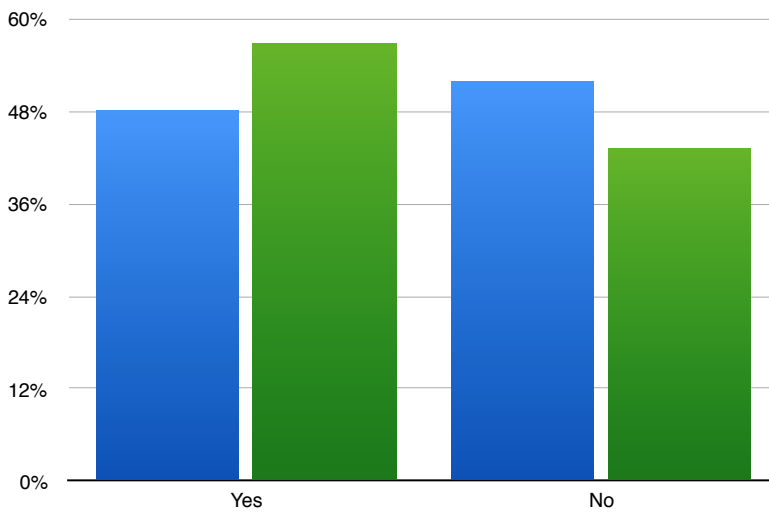
Students' Comments



Evaluation Report



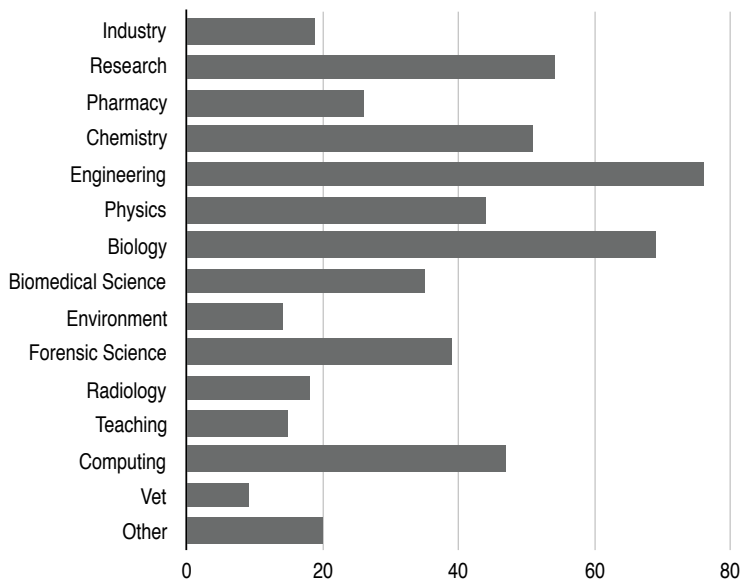
Had you considered a career in healthcare within the NHS?



■ BEFORE attending the Conference
■ AFTER attending the Conference

BEFORE ATTENDING:

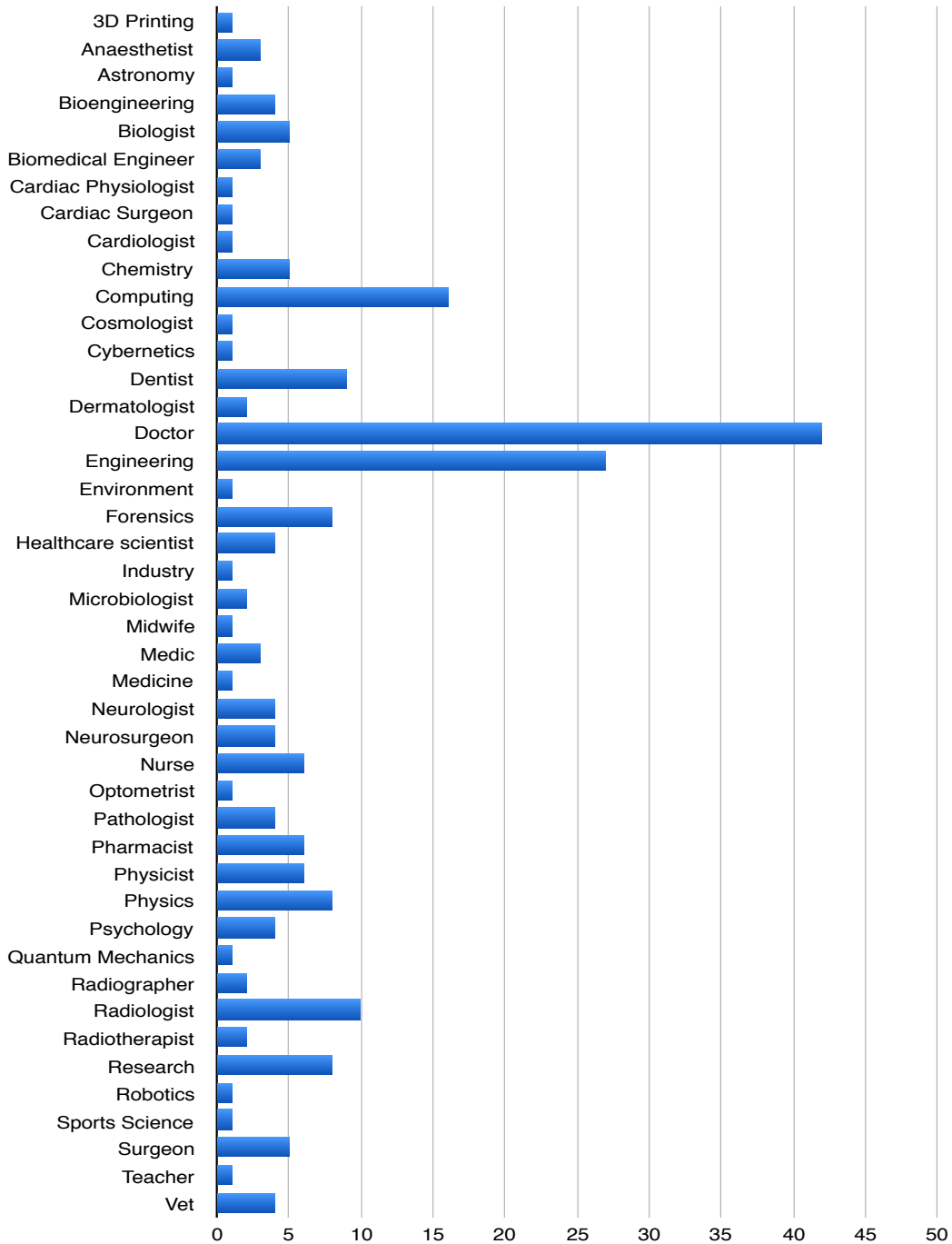
If you answered definitely or probably, in what area?



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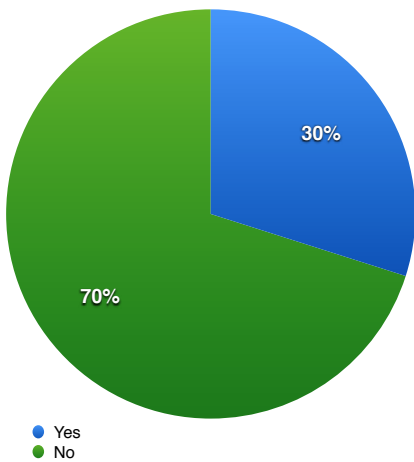


Which science careers would you consider taking up in the future?

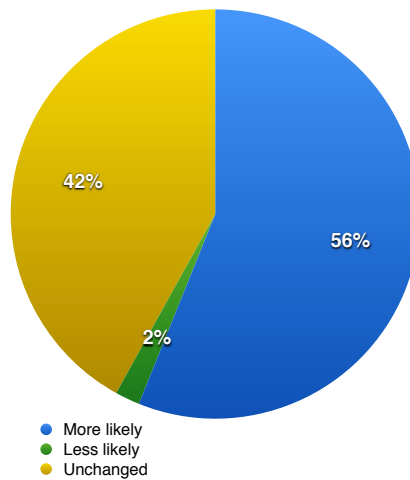


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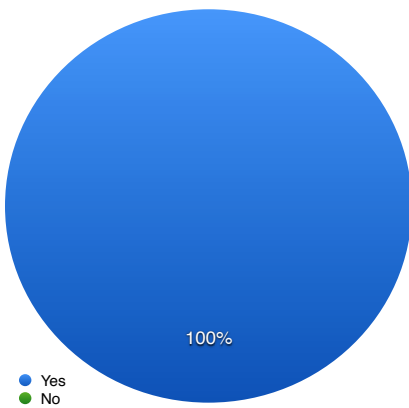
Were you aware that there are healthcare science careers that do not require a university degree?



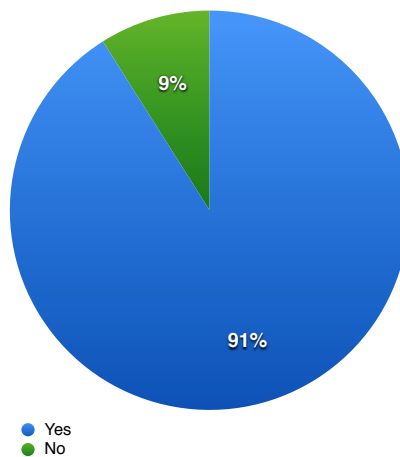
Are you more likely or less likely to consider going to University?



Are you hoping to attend this event next year?



Would you recommend this event to your friends?



Comments

- There should be more geology
- This event was interesting for me as I learned new things
- Today was fantastic as I gained more knowledge in science
- Today was great; wish I could do again! Learnt lots!
- Very amazing! Loved it!
- Very good - thanks for having me
- Very helpful in showing me the wide range of science
- Very inspiring and informative
- Very interesting!

Evaluation Report



Sum up the event in 3 words...

Phrases

- Very very intersting
- Really really good
- It was spectacular!
- Good learning experience
- Motivating and fun
- Lots of information
- Mind blowing education
- Super science day
- Good as gold
- It was nice
- Room for improvement
- It was fun
- It was great
- It was interesting
- It was organised
- It's so fluffy
- Free pens galore
- It is amazing
- Very very interesting
- Real life science
- So much knowledge
- Very very fun
- Amazing and wonderful
- Free stuff galore
- Free pens everywhere
- It's very fun
- It wasn't school
- Interestingly exhilaratingly cool
- Learned a lot
- Fun wonderful experience
- Filled with information!
- It was bland
- :) ;)

Words

67 Fun	3 OK	1 Fast-paced
67 Intersting	3 Social	1 Free
58 Interesting	3 Unique	1 Games
47 Interesting	3 Wonderful	1 Great
42 Fun	2 Detailed	1 Imaginative
40 Informative	2 Experience	1 Inclusive
38 Exciting	2 Future	1 Incredible
34 Educational	2 Good	1 Indescribable
31 Informative	2 Helpful	1 Influencing
28 Amazing	2 Incredible	1 Influential
17 Best	2 Insightful	1 Innovative
17 Engagaing	2 Intriguing	1 Insightful
17 Inspiring	2 Knowledgeable	1 Learning
17 Interactive	2 Lively	1 Life-Changing
14 Exciting	2 Medicine	1 Lovely
13 Cool	2 Mind-opening	1 Lovely
12 Educational	2 New	1 Mediocre
11 Enjoyable	2 New	1 Merchandise
10 Interactive	2 Spontaneous	1 Mind-blowing
9 Different	2 Useful	1 Nin-informative
8 Fascinating	1 Academic	1 Overwhelming
7 Challenging	1 Adveturous	1 Presentations
7 Long	1 Ambition	1 Productive
7 Simple	1 Aspiring	1 Productive
6 Nice	1 Astonishing	1 reading
5 Awesome	1 Big	1 Recommended
5 Creative	1 Boring	1 Science-tastic!
5 Entertaining	1 Boring	1 Short
5 Helpful	1 Busy	1 Smart
5 Scientific	1 Caring	1 Special
4 Funny	1 Changing	1 Stunning
4 Knowledgeable	1 Different	1 Talking
4 Science	1 Discovery	1 Technical
3 Average	1 Dislikable	1 Technical
3 Beneficial	1 Diverse	1 Thought-provoking
3 Factual	1 Encouraging	1 Thrilling
3 Fantastic	1 Enlightening	1 Useful
3 Great	1 Enriching	1 Variety
3 Hot	1 Eventful	1 Weird
3 Motivating	1 Excellent	1 Wonderful
	1 Eye-opening	

Evaluation Report



STUDENT 1 - Year 10 student from Westminster Academy

Today I had got the great opportunity to attend the 2018 Science Conference that was held today at University of Westminster and it has left me genuinely inspired and intrigued. I would like to thank your organisation for arranging this event as I had an amazing time and experience. I also would like to thank the whole committee, sponsors, volunteers, organisations and University of Westminster that had took part in this event as it wouldn't have been a fantastic day without them.

This opportunity was truly enriching and engrossing as I got to learn about Healthcare Science that isn't like the stereotypical doctor, how Scienc can be used in many different, great ways, how artificial intelligence can be used in healthcare and new concepts from the research projects of each school that took part. This event has left me feeling very empowered and inspired to follow a career in Science in areas such as Pharmacology or Biomedical science.

Hopefully I will be able to attend another event like this in the future and gain more knowledge in the vast, infinite information of Science. The Annual Science Conference is definitely worth all the time and enjoying!

Once again thank you so much to you and everyone involved in this Science Conference. It was one of the best days of my life.

STUDENT 2 – Year 10 Student from St Marylebone CE School

During our first session , there was an incredible range of options to view from studying sickle cell anaemia and looking at cells infected by the disease to performing chest compressions on a fake paediatric doll. All of the people who were there were very engaging and enthusiastic. However, my favourite were the blood bags where they showed us how blood transfusions worked and the significance of donating and now when I am an adult I intend to donate my blood.

In the second session there were numerous activities such as looking at insets that cause disease such as malaria as well as looking at how sugar really affects the body (not just on the outside but on the inside as well!). They were incredibly interactive for example they let me try a 10kg fat suit which was really heavy. As well as this they had a stand based on lactose intolerance and me being lactose intolerant I was really intrigued to find out how I became intolerant and how it developed as it had only progressed this year. At the end I found out that over time a person just develops intolerance to things such as milk and based on heritage it just speeds up. For example me being from Morocco I was more likely to become lactose intolerant than an English person despite nobody in my family being lactose intolerant.

In the third and final session there were many exciting activities for example I intubated a doll but despite needing help I really enjoyed it. I also went to a stand based on clinical trials and learnt that there was a variety of typtes including blind and non-blind that I also learnt of their significance. I also went to a pathology stand and learnt that they tested live tissue as well as dead and that a pathologist can have a variety of specialities.

At the end there was a session that specialised in organs and organ donations. We discussed the controversy of after death donations as well as their importance for example thousands die a day from not being able to get kidney donations.

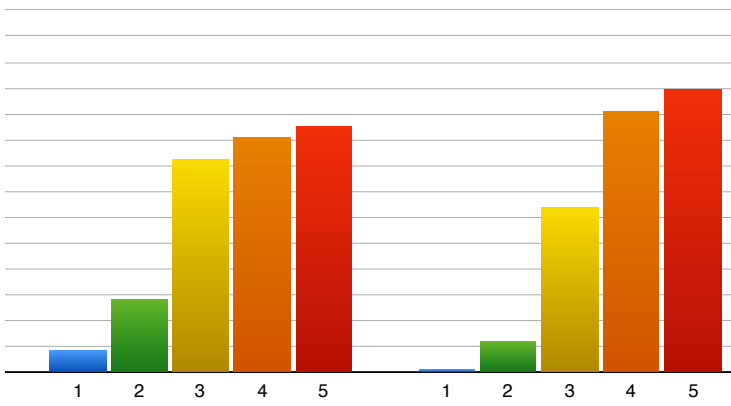
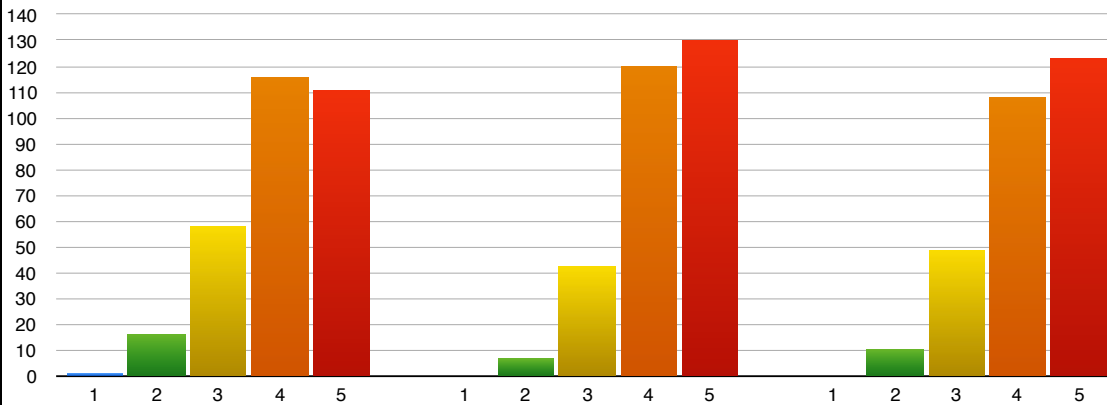
Overall, it was an amazing day in which I learnt a lot.

Evaluation Report



The Sessions

Students How would you rate the 5 activities?

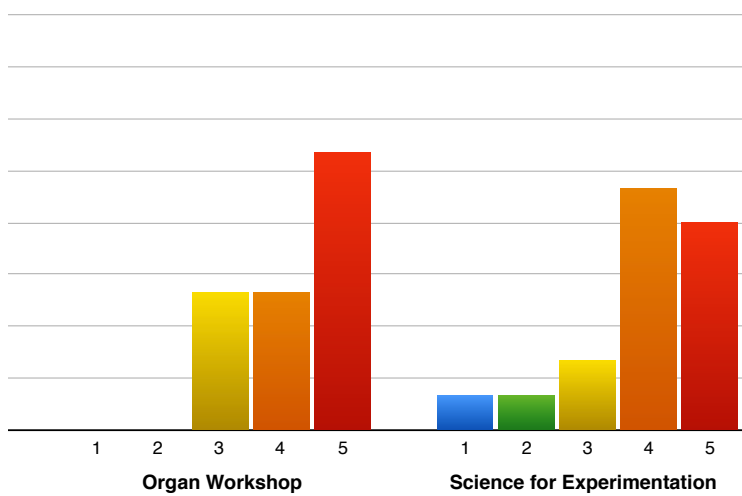
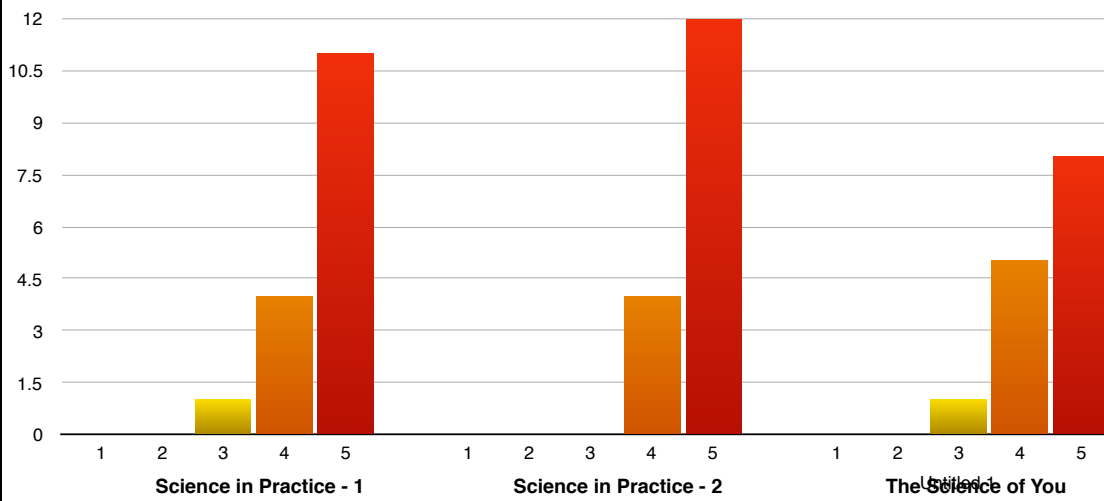


1 Boring
5 Exciting

Evaluation Report



Teachers How would you rate the 5 activities?



1 Boring
5 Exciting

Evaluation Report

Teachers' comments

What issues, if any, have made it difficult for you to attend and is there anything we could do to change that?

- Justifying staff to be out of school and miss exam classes
- None
- The early start meant we were unable to apply for free travel
- Start later for free TfL travel
- Start time - Getting to the venue on time without delays
- Start time of the event was made known quite late
- Start a bit later at 11:00
- Getting to the venue due to TfL only allowing group travel from 09:30
- Prior to event, conflicting information was given (different registration times) and photo forms were not sent out

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

- Timing? Maybe June/July once exam classes have left?
- Nothing - It was great!
- Extend the day so that more time can be spent with the different stands
- Earlier slot if possible, please
- This event was quite well organised so, I am happy with the event

What was of most benefit?

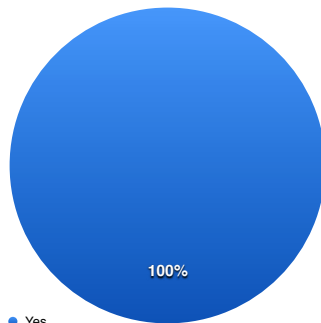
- Range of activities and presentations
- Students seeing other students present their work
- Science in Practice
- Science in Practice
- The different stalls
- The stands regarding different careers in science
- Careers
- Hands-on demonstrations; ECG and Virtuali-tee really good!
- The interactivity
- Science
- Science in Practice and Organ Workshop
- Apollo, ECG, Virtuali-tee stands were excellent

What was of least benefit?

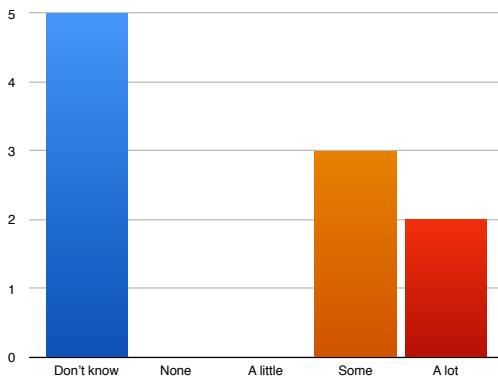
- Nothing
- CPD
- Some of the stalls could have used interactive elements
- The initial presentation
- Not all the stands were interactive; very interesting but it quite a long time for the pupils to listen to the information
- Teacher Session could have been done in 5 minutes



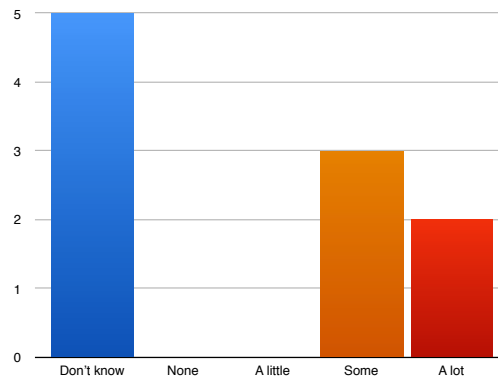
Was this event useful to you and your students?



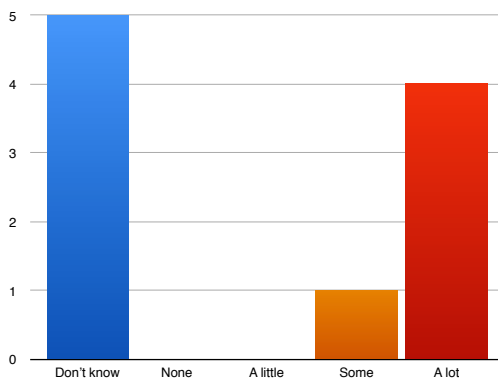
If your school has attended one of our previous events what impact did it have on those students' subject choices?



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



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

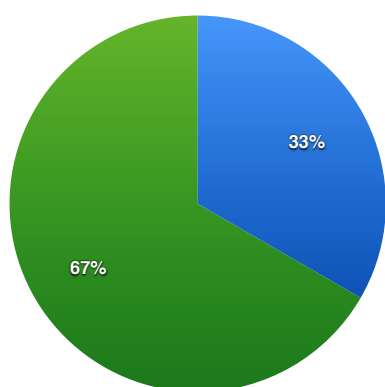


Do you know of any instances where students attending one of our previous events have chosen a career pathway into science?

- Many of our graduates study Biomedical science
- Head boy has been accepted into Cambridge to study Medicine

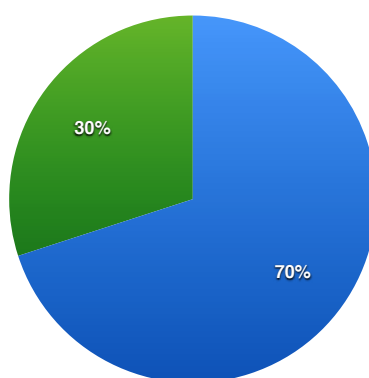
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Have you used the conference website www.science4u.info?



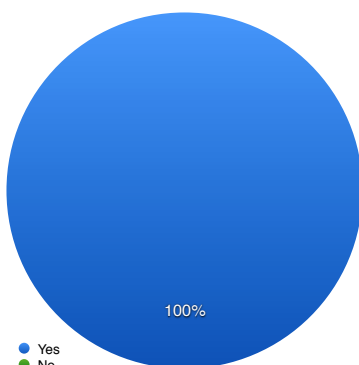
● Yes
● No

Will the Virtual Laboratory tour help with your lesson plans?



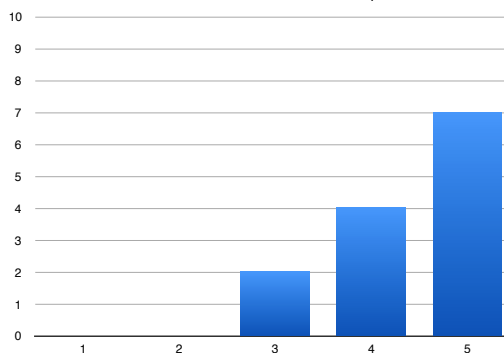
● Yes
● No

Are you hoping to attend this event next year?



● Yes
● No

Please indicate the usefulness of the Science for Experimentation session



If your students have not presented in 2018 would you now look to present in 2019?

Of the 5 schools which didn't present this year:

- Harris Academy St Johns Wood
- Overton Grange School
- Winchmore School
- Wanstead High School
- Westminster Academy

2 confirmed that they would in 2019:

- Winchmore School
- Wanstead High School

Evaluation Report



Acknowledgements & thanks

science4u is grateful to the following organisations and their staff for their kind participation and enthusiasm

- Barking, Havering and Redbridge University Hospitals NHS Trust
- Barts Health NHS Trust
- British Science Association
- DeepMind
- East and North Hertfordshire NHS Trust
- Geogina's Science Tuition
- Great Ormond Street Hospital for Children NHS Foundation Trust
- Guy's and St Thomas' NHS Foundation Trust
- Imperial College Healthcare NHS Trust
- Imperial College London
- Institute of Biomedical Science
- London Ambulance Service NHS Trust
- National Infection Service, Public Health England
- NHS Blood and Transplant
- PharmaInclusion
- Public Health England
- Queen Mary University of London
- Royal Brompton & Harefield NHS Foundation Trust
- Royal College of Anaesthetists
- St George's University Hospitals NHS Foundation Trust
- St George's University of London
- The Association for Clinical Biochemistry and Laboratory Medicine
- The Institute of Cancer Research Clinical Trials and Statistics Unit
- The Operational Research Society
- The Royal College of Pathologists
- The Royal Marsden NHS Foundation Trust
- University of Reading
- University of Westminster

Science for Discovery
was made possible thanks to the very generous support of our key sponsors

Funding

C A Redfern Charitable Foundation



Westminster Medical School Research Trust

Gold



WESTMINSTER ALMSHOUSES FOUNDATION

Silver

Thanks also to the following organisations for their generous support

BioConnections




Great Ormond Street Hospital
Healthcare Scientist Education Working Group












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showcasing exciting careers in science

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Paul Hampson

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The Royal College of Pathologists

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Public Health England

Maria Rossini

British Science Association

Sharon Gage

Event Organiser

SRG Project Management

