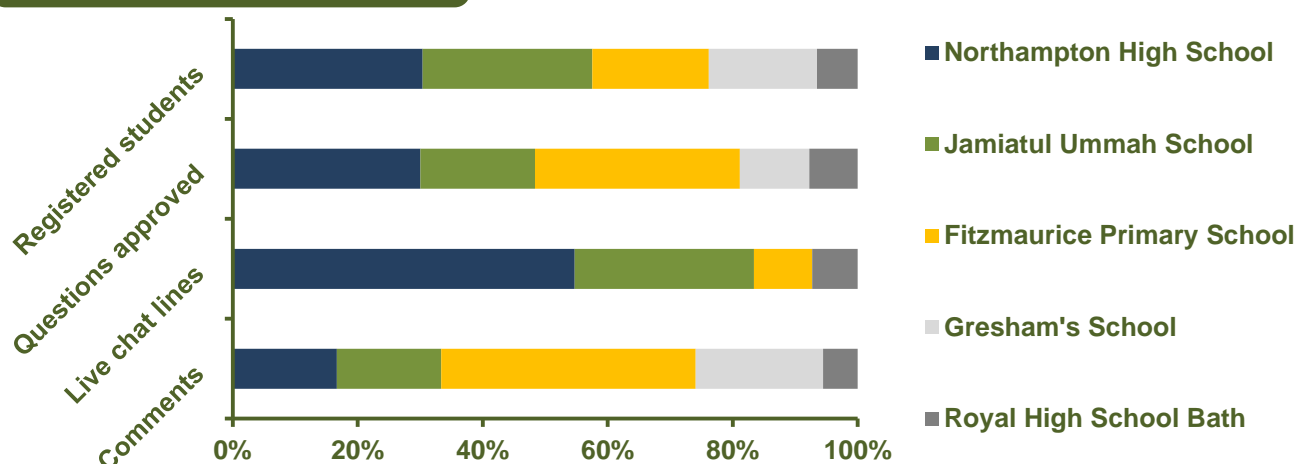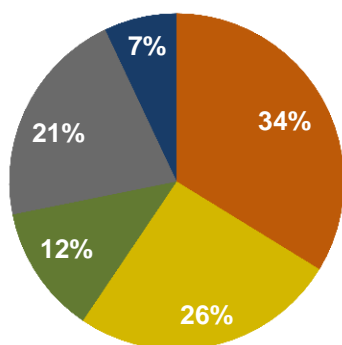## June 2014

A lot of the discussions in the Health Zone were focused on the medical theme: from drug delivery to repairing joints, probably due to students being able to relate to the topic. The live chats were particularly engaging, with lots of interesting health queries, but also a lot of general questions about an engineer's work and life, and this mix was also apparent in ASK.
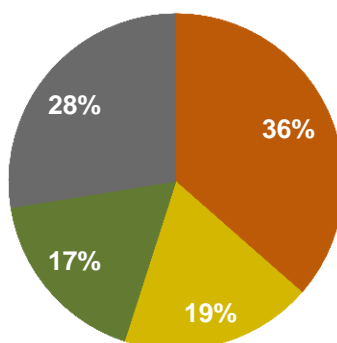
Schools' data at a glance

- Northampton High School
- Jamiatul Ummah School
- Fitzmaurice Primary School
- Gresham's School
- Royal High School Bath

Engineers' activity

Answers

7%, 34%, 26%, 12%, 21%

Lines of live chat

28%, 36%, 19%, 17%

Engineer's profile	Page views	Position
Alex Lyness	1,325	Winner
Marcus Johns	763	2nd
Kate Niehaus	612	3rd
Claire Brockett	700	4th
Neil Dhir	674	5th

HEALTH ZONE	PAGE VIEWS	ZONES AVERAGE
Total zone	17,280	14,525
ASK page	1,161	1,068
CHAT page	1,668	1,581
VOTE page	1,062	1,049

	HEALTH ZONE	ZONES AVERAGE
Registered students	308	329
% of active students (used ASK, CHAT, VOTE or commented)	74%	78%
Questions asked	354	390
Questions approved	180	167
Answers given	412	441
Comments	75	70
Votes	231	259
Lines of live chat	3,582	4,076
Live chats	14	13
Schools	5	8

Popular topics

The CHAT section had a variety of general health, and engineering career choice questions, with a few more about the engineers' particular work coming in the second week.

In the ASK section, the students began by asking general questions about life as an engineer. Questions became much more varied later on, with lot of questions about diverse topics such as eating insects and the future of robotics in medicine.

Keywords from live chats in the zone (the size of the word represents its popularity)

research medical
PhD world
part body design
maths school
science problems
money help cells

Ask?

Keywords of questions asked in the zone (the zone topic was not used as a keyword)

Keyword	Number of times	Keywords	Number of times
future	16	work	6
medicine	13	exam	5
engineering	9	field	5
engineer	8	technology	5
disease	8	ambition	5
career	8	subject	5
robot	7	body	5
health	7	leisure	5
		drug	5

Example questions
"How is it possible to inject human cells into people without needles?"
"is it possible repair people through engineering?"
"Why is it so crucial for people of my age, to want to be/become engineers?"
"With bio-engineering/health related engineering, will a time come when disability is not a disadvantage, as we are starting to see in the paralympics?"
"Is it possible for us to catch a virus or mutation from the bugs you're thinking of farming?"
"is lego good for practising engineering?"

Examples of good engagement

The live chats were very engaging with lots of extended replies and discussion between students and engineers, here is just one short excerpt:

> *"is there a danger of people being careless about their body because there is so many replacements?"* – erhpls123, student

> *"@erhpls123 great question - I don't think that's the case as nothing we build right now is as good as the natural joint or limb - I think everyone would prefer to have their own joints - and the operation required to put them in is pretty long and recovery takes a while!"* – Claire Brockett

The engineers were also good at completing each other's answers in the ASK section, like they did in this occasion: *"How can you tell if the insects are carrying illnesses?"*

One occasion that stood out was in a live chat where Alex gave an answer, only to be told the students didn't understand it, so could he explain it in a simpler way. Alex took this on board and gave simpler answers for the rest of the chat, which the students and teacher very much appreciated.

Engineer winner: Alex Lyness

Alex's plans for the prize money: *"I would host an event at the university for students and teachers to come along and understand that engineering is about more than fixing cars… we can repair people too! I'd get some of the UK's leading medical device designers, scientists and engineers to run a healthcare engineering workshop to explain how different medical devices in the home and in hospitals are designed, developed and made by engineers; from simple things like needles and asthma inhalers all the way through to MRI scanners and surgical robots."* Read Alex's thank you message here.

Student winner: evilbugs

For being very engaged in the chat, asking interesting and focused questions as well as prompting discussion, **evilbugs** will receive a £20 WH Smith voucher and a certificate.

Feedback

We're still collecting feedback from teachers, students and engineers but here are a few of the comments made during the event…

> *"Thank you so much for the advice, you never know, I might become an engineer"* – oliviafoster99, student

> *"Students REALLY enjoyed the session - there was a lot of laughter throughout and they were thrilled when your answers to their individual questions came through."* – Kate Williams, teacher

> *"Second place... But what an amazing experience! Bring on next weekend for more public engagement!"* – Marcus Johns, engineer

> *"Thanks for to everyone who voted, it's been a great experience! Hopefully a few of you guys will have been inspired to have a go at engineering in the future: D"* – Alex Lyness, engineer