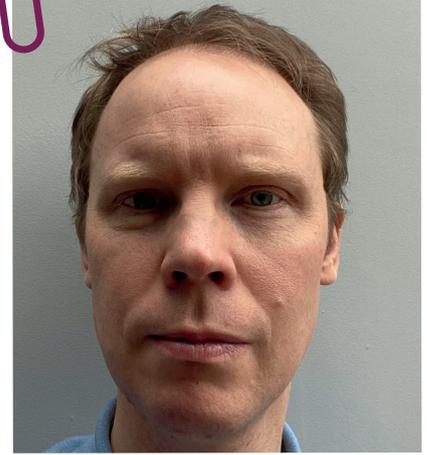




making physics matter



# Phizzi professionals

Joe Abbott

## School

Art, physics, maths, chemistry, English were all favourite subjects amongst many. I was lucky to have inspirational teachers in a school which encouraged high achievement but didn't pursue it at all costs. I liked understanding why things work and I enjoyed learning collaboratively with my friends.



## What next?

I chose to study physics, maths, chemistry and biology at A-level. It seemed to me that these subjects came together as a great package, each complementing the other and adding to the richness of understanding. I had decided that I wanted a career in science and attracted by the campus university in Nottingham I went there to study medicine.



## Why physics?

Physics is the study of the fundamentals of the way the universe works so it is hard to not see it as amazingly important to many big and fascinating questions: Can we achieve totally 'green' energy, industry and transport? Do worm holes exist in space? What is the fate of the universe?



## And now?

I am a Consultant Paediatric Eye Surgeon which means I look after children's eyes. I look at eyes with various instruments, some of which were invented more than a hundred years ago! These instruments are still useful to literally see the only visible extension of the human brain - the optic nerve at the back of our eyes.



## Physics in practice

We can now look at eyes using laser light sources and complex maths to see individual cells in the retina, the lining of the eye. We not only use physics to 'see' into the body but to treat cancers and other problems which happen in the eye. I use different wavelength lasers and radiation to kill tumours and protect poorly children from getting very sick.



## Advice for young scientists

Get involved and communicate with people. Good science is collaborative. Find what you like and do it to the highest standard you can. If something feels like 'failure' don't be put off; sometimes 'failure' is what actually teaches us the most! Find out about scientists who pushed us forward and broke the mould. Richard Feynman, James Clerk Maxwell and Katherine Johnson were all amazingly inspiring people.

