



making physics matter



Phizzi professionals

Dr Jessica Boland

School

I was born with significant hearing loss and was bullied at school. I could speak well and was doing OK and that caused issues in getting treatment. I didn't get hearing aids until I was 14. With the hearing aids and other adjustments at school, I actually did really well.



What next?

I got an academic scholarship to take physics at the University of Exeter. I then did a PhD at Oxford and a postdoctoral position in Germany using terahertz spectroscopy which involved using radiation to analyse nanostructures – incredibly small structures, 1 billionth of a metre!



Why physics?

I was planning to study languages and classics at university, but my maths teacher suggested physics because I was always asking how to apply maths to the real world. I had three personal statements written and decided on a physics degree about five minutes before the UCAS deadline.



And now?

I am a Lecturer of Functional Materials and Devices in the School of Electronic and Electrical Engineering at the University of Manchester. It's amazing to be at Manchester right now, to have my own research group and to mentor students.



Physics in practice

In my research, we use terahertz radiation – like the kind used in airport scanners – to analyse current nanomaterials and to test new ones that could make smarter, faster, more energy efficient devices in the future.



Advice for young scientists

I would advise all aspiring scientists to go for it. If you have a disability, don't think you can't do it because you can. Things are changing, getting more inclusive. Nothing should hold you back. Find a mentor who's faced the challenges before and go for it.

