



making physics matter



Phizzi professionals

Dr Heather Williams

School

I loved music, art and science. I played cello in orchestras and sang in choirs. I was about 15 when I became interested in nuclear medicine during a physics class. I was intrigued by the idea of putting radioactive materials inside people and detecting where it goes by picking up the radiation from the outside - it sounds like a bad idea but can help to make very ill people better.



What next?

I did a degree in physics with medical physics at the University of Nottingham and then joined the NHS Science Training programme. I did a Master's in medical physics as part of that programme and then got my PhD from the University of Manchester Institute of Science and Technology (UMIST) whilst I was based at the Christie Hospital.



Why physics?

Physics underpins all aspects of everyday life and the application of physics can make a tangible difference to the world. Physics is the big story – it covers everything, from the really really tiny stuff that is smaller than atoms to stars and galaxies and everything in between. I really like that big sweep of scope that physics has – physics runs through every aspect of life.



And now?

I am a Consultant Medical Physicist, responsible for all nuclear medical physics at the Christie NHS Foundation Trust. The team I oversee provides images and information so that doctors can make good decisions about patient treatment. We support the diagnosis and treatment using radioactive materials and ensure radioactive materials are used safely.



Physics in practice

Because I studied medical physics, much of it is directly relevant to my current job. The team I manage is responsible for supporting very complicated tests and treatments, and my physics knowledge-base is essential for understanding how all of the processes work and for managing the team effectively.



Advice for young scientists

Studying science, especially physics, can take you in any number of different directions. Physics qualifications are valued and respected; they can take you down unexpected paths and they can also help you achieve long-held ambitions - I have wanted to work in medical physics since I was a teenager. The possibilities with physics are endless!

