



making physics matter



# Phizzi professionals

SLt Charlotte Burman RN

## School

I was torn as to what subjects to study at A-level – sciences or humanities? I eventually chose maths, physics, chemistry, French (and an AS-level in philosophy and ethics). I loved the sciences but was glad to have French as a creative outlet. I had two really inspirational science teachers and I wouldn't be where I am today without them.



## What next?

I went on to complete a Master's in physics at the University of Bath. I completed my Master's project at the European Synchrotron Radiation Facility meaning I got to spend six months living in France which was amazing. I really enjoyed my degree but decided that I wanted to move into engineering rather than pure physics and this guided my career choice after leaving university.



## Why physics?

Physics provides a fantastic grounding for many jobs; you develop technical but highly transferable skills. You can tailor your degree to your interests - lots of maths could lead you into finance, astrophysics to the European Space Agency...the possibilities are endless! After university, I joined the Ministry of Defence as a graduate nuclear engineer. I had a great time but wanted a more hands-on job.



## And now?

I am a Marine Engineer Officer for the Royal Navy. I operate the nuclear reactor that powers a submarine as well as looking after all the systems that support life onboard; everything from making air and water to getting rid of the sewage! It's a unique job and submarines are amazing pieces of kit. I love that every day is different; there is always something new to learn.



## Physics in practice

Studying physics has given me really strong analytical and problem solving skills which I use every day as there are always challenges to overcome. Understanding nuclear physics and the process of fission is essential for operating the reactor and keeping it safe. My scientific background plays a big part in keeping the reactor running smoothly.



## Advice for young scientists

The only things you will regret are the opportunities that you didn't take. I wasn't sure about moving to France or joining the navy, but I now know that taking they were definitely the right decisions. No matter how much you plan or think you know what you want to do, things change; don't be afraid of this. Some of the best opportunities I have had have been the unexpected ones.

