



making physics matter



# Phizzi professionals

Dr Peta Foster

## School

I did a physics degree at York University and then a PhD in physics at Queens University Belfast. I now work at First Light Fusion, a company looking at ways to generate energy in the future. Fusion energy is a potential source of abundant clean energy for the planet.



## What next?

I actually started working as a scientist at the Rutherford Appleton Laboratory after my degree. I worked with so many incredible people that I was inspired to do my PhD, which I did part time while still working on experiments at the Rutherford. I got to design and build the target area for one of the best lasers in the world. That felt pretty amazing to do.



## Why physics?

I became incredibly curious about what light was when I was young, asking my family and teachers and trying to understand. The more I learnt, the more fascinating it seemed and the more questions I had. I kept on asking and investigating and ended up working with some of the most intense sources of laser light in the world. Stay curious, it takes you to cool and exciting places!



## And now?

I am a Senior Scientist doing experimental research into shock driven fusion. This involves firing a huge gun at targets at speeds of eight kilometres per second! I love working with other awesome scientists. We basically get to play together building things, blowing stuff up and testing ideas to try and find a way to help make the world a better place.



## Physics in practice

All my science knowledge from school through to my PhD is useful in my job. I use cameras and lasers to take incredibly fast pictures, so knowledge of optics and how light interacts with matter is very important. I use geometry to work out how to align experimental parts; I calculate speed of moving projectiles and measure the wavelength of light given off by a plasma.



## Advice for young scientists

Scientists need to be curious and courageous! Curious to learn about the mysteries of the universe. Courageous enough to ask questions so you can collect information and work out what is and is not known. Being brave enough to say when you don't know something is the fastest way to finding the answers. Curiosity and courage will take you to amazing places. Never stop asking questions!

