



STEM Ambassador profile

HAROON RAFIQUE
ACCELERATOR PHYSICIST

What do you do?

I am an accelerator physicist, currently working at the International Institute for Accelerator Applications, University of Huddersfield. Accelerator physicists are concerned with the theory, design, construction, and operation of particle accelerators. As physics was the most challenging subject area I could think of, I chose to study it at university. Before my PhD I obtained an MPhys in physics from the University of Manchester, for my masters project I used graphics processing units (that you might find in a PlayStation or Xbox) to perform massively parallel simulations of particles travelling through accelerators. Prior to this I took A-Levels in maths, physics, biology, and sports science & physical education.



What advice do you have?

When studying a subject such as physics or engineering, it can sometimes be difficult to find motivation. I find that if you find a small area that really interests you, and you keep up to date with that area, this usually provides some motivation.

It's also useful to develop your own scientific capabilities; for example, many scientists rely on programming to perform their work. If you can join a code club or learn a programming language via a free online course, this will have many benefits. Firstly, it will help on any job/university application, secondly it will allow you to solve problems with greater ease, and it should also allow you to develop a technical skill at your own pace and level of interest – you never know, you may be the next Zuckerberg!

What kinds of activity can you support?

Interactive talks on; the large hadron collider at CERN, applications of particle accelerators, the physics of star trek, and how physics has shaped our lives. Hands on activities such as constructing a magnetic accelerator. I have taken work experience / work shadow students before, usually for a day or two, and I'm also happy to develop new activities.



How your school can access STEM Ambassadors

We work with schools so that you can access our database of **FREE** STEM Ambassador volunteers, enabling you to incorporate exemplary links to the world of work within your teaching. Each STEM Ambassador has a STEM background – they are usually experts or professionals in their field.

All of our STEM Ambassadors have also undergone an enhanced Disclosure and Barring Service (DBS) check to enable them to work with young people in school; and they have also attended an induction session with West Yorkshire STEM staff on how to approach classroom and school-based teaching sessions. To request a STEM Ambassador, email us: ambassadors@wystem.co.uk.

