Dr. Jonathan Hare

Dr Jonathan Hare, former presenter of BBC 2 Rough Science Series, shares his career journey as a Worthing College Alumnus.

“I studied at the college during the 80’s at what was then Worthing Sixth Form where I took Maths, Chemistry and Physics. Back then I was able to take these subjects without ever getting my English GCSE, which today of course, would not be possible!

I love making things and had a passion for science from a very young age. But I had problems reading and writing so it was a bit of a surprise to my family and friends when I went on to gain a first in Physics at Surrey University!

This resulted in me doing a PhD at Sussex University where I originally planned to study Astronomy. I wanted to work on something practical and I was given the opportunity to work on a project with Professor Harry Kroto. We were trying to find a way to make a beautiful football shaped molecule that Sir Harry had discovered a few years earlier that he had called Buckminsterfullerene.

Whilst trying to understand some intriquing aspects of astro-chemistry Professor Kroto had discovered (by accident) that vapourised carbon can form a tiny football shaped molecule. At this stage it was just a peak on a graph but during my first year working on the project we found a way of making and extracting the molecule - a 60 atom carbon cage known (hence C60) called Buckminster-fullerene.

The discovery of the Fullerenes as they became known, opened up a new field of carbon nanotechnology. Sir Harry would be awarded the 1996 Nobel Prize for Chemistry (which he shared with Robert Curl and Richard Smalley). The C60 molecule or Buckyball was named after RichardBuckminster Fuller, (Bucky to his friends), an American architect renowned for developing numerous inventions, one of which was the geodesic dome.

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These large dome structures are evident today in buildings like The Eden Project in Cornwall or the Epcot Centre in Florida.

New areas of Nanotechnology like C60 and the Fullerenes, as well as genetic engineering are very exciting developments of our day and all young scientists should be excited by the use of chemistry and physics to make tiny molecular machines, fast switching computers and all sorts of things we haven’t even dreamed of yet. The combination of the two fields will do what evolution has done over millions of years potentially in much shorter periods of time.

I was privileged to work with Professor Kroto for 10 years and we spent much of that time, as part of Sussex University outreach programme, educating people of all ages, all around the world about this new discovery.

It was during this time that I came to realise that I had a flare for communicating science, all types of physical sciences and started out to be a freelance science communicator creating and presenting workshops in schools and colleges both in the UK and abroad, writing articles for science publications and creating on-line videos to share my passion for the subject.

It was around the same time that I was offered the opportunity to work on a new science programme the BBC were commissioning. They really wanted Professor Kroto but he suggested me for the role. It was then that I began a new and exciting career as a broadcaster, working with a team of scientists on Rough Science, a BBC 2 programme.

We made 6 series filmed on location all around the world and ‘aired’ in over 90 countries! Today I present about 100 talks and workshops a year both in the UK and abroad and am passionate about educating young people about science. I also co-present workshops at the Brighton Science Festival with the festival’s creator Richard Robinson, reaching hundreds of children in many schools and colleges.

As part of this work, I returned to Worthing College in February 2017 to present a workshop as part of Coastal STEMfest called ‘Voice on a Light Beam’ - modulating light to carry your own voice as a message. It was a great turnout and I hope I managed to inspire the students who joined me!

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