

Professor Colin Webb Professor of Laser Physics



Hi there! I am Professor Colin Webb – A Professor of Laser Physics

Where do I work?

For many years I was head of the Laser Research Group at the University of Oxford. I was responsible for developing some of the very first lasers.

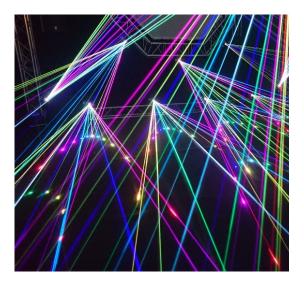
What did I like doing when I was at school?

I enjoyed doing experiments and finding how things work. I made my own radio sets and rediscovered some tricks with light that Newton was the first to see.

What do I like doing in my spare time?

I like reading detective novels and watching TV programmes like Morse and Montalbano. I also have a huge collection of classical CDs.

What do I do as a Professor of Laser Physics?



As a laser physicist, my job was to invent lasers to be used in new, innovative ways. The laser engineering company that we founded built the first 'laser guide star' system for astronomy, laser micro-drilling machines for parts of mobile phones, and even light-show lasers for events and concerts.

How does what I do make the world a better place?

The company now makes lasers for studying how the powder particles in medical inhaler sprays get to the lungs and, on a bigger scale, how closely the droplets in sprays used by farmers on their crops land where they are needed.

What I like about my job

I met scientists from all over the world. In my job as a professor, I had visitors from the USA, Australia, New Zealand, Spain, Italy and Japan who came to Oxford and worked in my research group. I still receive emails from many of them.



Challenges I have faced

My first research was on an idea for a laser which, as it turned out, did not work. I was very disappointed at the time. However, I did not give up. In analysing why it did not work, I found out many things which were very useful later on.

If you want to be a laser physicist, you need:

- * to have an enquiring mind to try to understand why things behave the way they do
- * to be brave and not to be afraid to ask others for explanations and use the resources of books and the internet
- * to keep on trying to understand, even when the going gets tough and the mathematics looks hard
- * to get on with other people of all different kinds and backgrounds so that you can learn from their experiences





Discussion time

* Would you like to be a Professor of Laser Physics like Professor Colin Webb?

Why? Why not?



- * What skills and interests do you already have that would help you become a Professor of Laser Physics?
- * What new skills and knowledge would you need to develop?

Free supporting resources for laser physics

Starters for science – see 'Shadow Puppets' and 'Mirrors and light'

Science Fun at Home – See 'National Puzzle Day' and 'Light Up Science'

<u>I bet you didn't know...</u> articles use cutting-edge science research as a context for learning. Teacher Guides describing the research and activities and investigations for children can be used as classroom presentations. For more about space see,

- Ice giants at the end of the Solar System
- There is storm coming and it is not going away
- There is lightning at the edge of the solar system



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