

King's Student
Perspectives
Natural Sciences
(Physical)

Jonny, 2nd year

What attracted you to the Natural Sciences course?

I came to King's looking for a challenge. I was ready to commit to science after enjoying it at school but wasn't ready to commit completely to physics, making the Natural Sciences Tripos perfect for me with its breadth.

And how did you find it when you got to King's?

I found that although what I'd enjoyed about physics at school was still present, it was the other new subjects that really caught my interest. For my first year options, I chose Computer Science and Materials Science despite them both being completely new to me. The former proved to be both fascinating and rewarding: weekly assignments that at first seemed impossible were satisfyingly eventually overcome. The latter showed me how theoretical knowledge could be applied, grounding the physical sciences in a reality and promising the potential to

change the world in a very direct way. The practicals in particular linked lecture topics such as crystal structure to real life phenomenon such as the stiffness of an object. Although the conclusion reached wasn't always the right one (or reached without a little creativity with results) the advisors were always eager to help.

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What did you find most difficult initially?

At the start of the year the pace and intensity of the weekly work cycle proved intimidating but these became second nature before long.

One of the most shocking parts of the transition from sixth form to Cambridge was the lack of positive feedback. Getting a question right meant barely addressing it in a supervision, whereas mistakes were poured over until the root of misunderstanding was found. It took me a while to realise that this was a strength rather than a weakness of the teaching - supervisors are interested in working with me in a more thorough and genuine way than I experienced in sixth form. Criticism was as much a sign of respect and persevering will

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to see me improve as a student. Once I established that criticism of my work doesn't equate to criticism of me I found that the Cambridge system was far more rewarding than anything preceding it. Getting a question right becomes a genuine pleasure.

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At Cambridge you are pushed outside of your

knowledge comfort zone and almost forced to figure out new applications for skills you've learned in topics you may have thought entirely unrelated. My lateral thinking developed more than anything, constantly building cross links between new and old material. These links are central to doing well in the Cambridge system, as is learning when to stop.

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When to stop?

Whereas in sixth form attacking a question with all of the methods that were hinted at would do the trick, in Cambridge it was evident that a different kind of persistence was required.

When working so intensely it's easy to let work become your life. Extra-curricular activities such as photography really

help to keep a little sanity, as do trips to the botanical gardens etc.

What keeps you going?

I also learned this year that passion was essential - I wasn't limited by mental faculty so much as desire to read past the lecture notes and engage with my subjects. I took HPS (History & Philosophy of Science) in 2nd year which swiftly bloomed into my favourite topic - I started understanding why I had come to Cambridge to do science when I saw the central role it plays in society and civilisation.



Snowy King's (the Fellows' Garden)

How would you advise students to prepare for the course?

There are a few things I wish I'd done before arriving to make first year a little easier. A strong background in maths would have helped me a great deal as I struggled to understand the basic concepts which enabled understanding of the more complex and far more interesting physical concepts. I'd primarily recommend enjoying the summer before coming but also on brushing up on calculus, two

activities that hopefully aren't mutually exclusive. I'd also

prescribe a dose of learning how to learn for anyone coming up, reading anything on study advice that looks a bit relevant.

Supervisors will swiftly pick up on and work to your strengths.

One of the resources that helped the most with Physics was Richard Feynman's recorded lectures and books which explain the world through analogies. These lay a foundation for the maths which I found to be too abstract on its own. This

reflects my own learning style, one of relating abstract concepts to real world events. Such a practical method isn't suited to everyone but supervisors will swiftly pick up on and work to your strengths.

Final words...

I've no regrets about coming to King's. The college is of course the best (everyone's is) and has a real personality of its own.

A note to current King's Natural Scientists

If you would like to write about your experiences of

studying Natural Sciences at King's for our prospective students to read, please email Kristy in the Admissions Office for further details: undergraduate.admissions@kings.cam.ac.uk.

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The Chapel and bridge over the river Cam