

Mathematics

Maths has the ability to turn a simple equation into a full investigation. Through algebra or graphical representation, a beautiful and precise problem emerges. In the Inequalities chapter of FP2 a few numbers and symbols force me to undergo pages of working in order to discover their true nature. I have to contest my natural feeling to instantly write down the obvious solution and I have to actually think about how each operation transforms the inequality as a whole. In Year 5 of primary school I was selected for a Robotics' Course at Imperial College as the youngest candidate of 250 people. This was my first experience of how the maths we learned and, which was interesting in its own right, could be applied to real world problems.

During my AS year, studying Maths, Further Maths, Economics and Physics, my passion for maths has developed and I want to push my problem solving skills to their limits. The applications of maths continue to be apparent as modules such as S1 aid me with understanding Economics while M1 and M2 allow me to grasp Physics more easily. Outside of school, I have attended masterclasses at both Imperial College and Oxford University to enhance my problem solving skills and tackle hundreds of new problems not previously encountered. I particularly enjoyed how the mentors who possessed the answers were not actually allowed to give them to us, but rather we had to work amongst our group to come to the correct solution. The mentors could only give us guidance on our thoughts but not bestow upon us any of their own. This allowed me to develop a better understanding of how to tackle unfamiliar problems and not panic in doing so. I was also specially invited to attend the Royal Institute as part of a Math's celebration due to my continued attainment throughout the year.

During my AS year, I secured a two days work placement at the investment firm Architas. I was also selected, through a rigorous interview and testing process, for a ten months work experience placement at Ernst and Young. This consisted of three weeks paid experience, as well as meeting two professional mentors monthly.