

# Physics in Action

The "Physics In Action" lecture at the Emmanuel Centre on 6th December was an amazing opportunity for us, A-Level Physicists, to delve further into Physics and explore concepts both in and out of what we learn in class.

It involved lectures from six speakers, and the day began with a talk from an applied nuclear physicist where we learned about interesting concepts such as "nuclear hide-and-seek", where her role involved helping to find lost radioactive sources, and it also delved into the importance of AI in her job. The next lecture was one that was interesting for all of us, and this was about planetary science by a lecturer at Imperial College London, Professor Sanjeev Gupta - all about space. From discussion of life and water on Mars to the robots involved, and from the rocks and samples they take from Mars to his next projects about moons such as Titan, it was incredibly interesting to hear a lecture about one of our all-time favourite topics in Physics.

Our third and fifth lectures were certainly the most physics-y. PhD student Kat Phillips introduced us to ideas around fluid dynamics, and explained the science behind the all-interesting density tower, creating easy and understandable links from what we had for breakfast to more complicated ideas such as surface tension or Newtonian-ness. If that wasn't enough, our fifth lecturer from the University of Oxford, Muhammad Hamza Waseem, gave us a simplified explanation into quantum physics - whether these were real world examples in quantum computers or the extended explanations into pictorial diagrams to explain quantum physics to teenagers. However, one of the most interesting experiences was having an exam skills talk by one of our many physics revision heroes, CeerazleDazzlePhysics, who gave us an abundance of physics tips that will be endlessly helpful for the future.

Nonetheless, by far my favourite lecture was from Greg Foot, a science journalist who has his own podcast, book, social media accounts and does tons of work for the BBC - and his pathway into his current jobs (having graduated from Cambridge University) were interesting. Hearing about his 'deep ocean lab' that had us captivated, where he dived deep into the ocean in Bermuda, all for the sake of history. Plus, we saw a "Hoff" crab!

It was such a fun and insightful trip and thank you very much to Ms Patel and Mr Le for this opportunity

*Sameen, 12CCH*

