Report on our visit to IMPERIAL COLLEGE

On Wednesday February 1st we started our 3-day school trip to London with a visit to Imperial College. We were welcomed by Dr Saira Naeem and the Engineering Alloys group from the Department of Materials. As soon as we arrived, they treated us to tea, coffee and biscuits.

After that, Vivian Tong, a Hexmat PDRA, showed us their Charpy impact testing machine. She explained how it worked and gave us the opportunity to do some of the tests. The Charpy impact test is performed to measure the energy absorbed by the fracture of the specimen. We did many tests on different materials at different temperatures. The three materials we used were steel, aluminium and zinc. We had three samples of each material heated at three different temperatures: -200°C, 20°C and 200°C.

We then carried on our visit with Abi Ackerman, a PhD student who introduced us to the rolling and hardness testing of metals. She showed us the effects of rolling process on the mechanical properties of metals. We used coins and rolled them until we got very thin pieces of metal. Abi explained that the atomic structure of a material changes by adding deformation and that dislocations make the material more ductile. We finished our visit with a tour of research labs and campus with Dr Saira Naeem and Simon Wyatt.

Students from the Royal school of Mines are very fortunate to study there because they have great high tech equipment and facilities to carry out their research. They will become the greatest engineers! We are very grateful to the HexMat group who welcomed us so warmly and showed their work and research. Imperial College is a great place for studying metal engineering and if someday we are given the opportunity to study there we would immediately say yes! “Merci beaucoup” for the visit.

Students from Diderot High School, Paris, France