

# The **BRAINWAVES** Club

**Term 3 2021 | SciSpies | Years 1 and 2**

**Venue: Forest Hill Secondary College**

**Term Fee: \$285**

With the Tokyo Olympics being front and centre in world news, we will look at the Science behind the Olympics – with a particular focus on Henri Didon’s Olympic motto “Citius – Altius – Fortius”... “Faster – Higher – Stronger”.

**Meeting 1: Get to Know Tokyo**

**Focus: Science and Maths in the culture of Japan**

Japan has long been an innovator in the world of Mathematics and Science. Home to origami and modern robotics, the country that is host to this year’s pandemic-affected games has not always been down the same ‘conventional’ route as most European Sciences. From JAXA to panko breadcrumbs, Japanese science is always surprising.

**Meeting 2: Citius**

**Focus: The Science of ‘Faster’**

Whether it is Usain Bolt setting a world record in the 100m or how quickly someone can solve a Rubik’s Cube, humanity’s fascination with ‘faster’ is one of our constant conquerable frontiers. But understanding an abstract concept such as time and its relationship to other variables (such as distance, distribution, etc.) draws heavily from the world of Physics. More than just a movie about a bus, ‘Speed’ can really get your pulse racing.

**Meeting 3: Altius**

**Focus : The Science of ‘Higher’**

Back in the 2008 Beijing Olympics, Steve Hooker won gold and became the highest pole-vaulter in Australian history. But the Science of ‘Higher’ has its ups and downs. We will look at how things change the higher that you go, and get the low-down on going down low... It all just depends if you can handle the pressure.

**Meeting 4: Fortius**

**Focus : The Science of ‘Stronger’**

The name Dean Lukin might not have the same recognition as it once did, but this Aussie won gold in Los Angeles in 1984 and one of only a handful of Australian medalists. But – scientifically speaking – what actually is ‘Strength’? How are some substances stronger than others and why is density such an integral factor? We will investigate the coefficient of restitution and try to see if we are made of tough stuff too!

**About the club leader: Liam Mackay**

For **Liam**, teaching is all about relationships – both with understanding his students and in the relationship they have with the content of their learning. Currently the recipient of an internship at Belgrave Heights Christian School, Liam is enjoying seeing the theory of his studies being put into practice.

**What to bring**

Each week please bring a well-stocked pencil case including scissors, good textas and coloured pencils, pens and/or writing pencils, sticky tape, glue stick, and an A4 notebook.