# The BRAINWAVES Club

## Term 2 2021: Neutrinos – Years 5 and 6
## Venue: Brighton Grammar School
## Term Fee: $285

**24 April**
**Meeting 5:** **Practical Plastics with a Purpose**
**Focus:** **Materials Chemistry**

Plastics are a huge part of modern materials chemistry – but they have only existed for 114 years! Plastics are made by performing chemical reactions on natural substances like rubber, oil or even milk! Let's investigate what plastics are on a chemical level, then have a go at making our own out of a substance called casein, which is a protein found in milk.

**8 May**
**Meeting 6:** **Baffling Brains!**
**Focus:** **Biology, Psychology**

Our brains pull tricks on us every day – they fill in the gaps between what we can see and appear to make things visible that aren't really there. In this meeting we'll delve into optical illusions and how they work as we investigate what our brains are doing behind the scenes when we look at an illusion. Then, can you create an illusion that will baffle your friends?

**22 May**
**Meeting 7:** **Tiny Trees – the Art and Science of Bonsai**
**Focus:** **Plant Biology**

Bonsai is the Japanese art of making a fully-grown tree that is a tiny fraction of the size it should be. How is it possible to encourage a plant to stay so small? This week the Neutrinos will be investigating plant biology to find out how plants grow, and how we can optimise this to make plants grow healthier, and tinier!

**5 June**
**Meeting 8:** **Making Materials Mighty!**
**Focus:** **Material Science, Physics, Engineering**

They say two brains are better than one, but what about two materials? Composite materials help us build bigger, better, stronger structures that can withstand fantastic forces. If that is true, then surely, we could build a structure to hold a Neutrino... or four, maybe more! Can you engineer a solution to do just that in today's meeting?

**What to Bring:** Each week please bring a well-stocked pencil case which includes scissors, textas or coloured pencils, grey lead pencils, sticky tape or a glue stick, ruler, rubber and pencil sharpener.

**About the Presenter – Sally Gridley**

Sally is a STEM teacher with a passion for game design, chemistry, and maths in particular! She holds a Bachelor of Biological Science (Hons), a Master of Teaching and is working towards a Master of Education in Digital Technologies. Sally has represented her school at several conferences to do with technology and advancing digital literacies in education. Her students have also experienced success in the STEM Games Challenge for a number of years. She is looking forward to working with the Neutrinos this semester!