



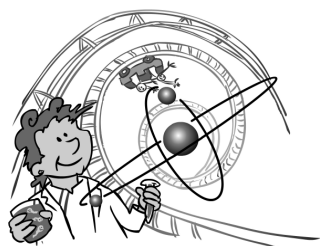
G.A.T.E.WAYS

The Brainwaves Club – Semester 1 and 2, 2009 at Brighton Grammar School

The Einsteins – Years 5 – 6

Presented by Christine Ireland

S.I. - Scientific Investigation



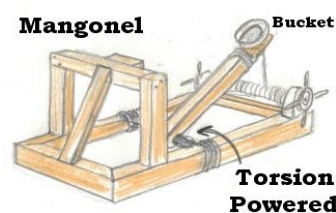
S.I. (Scientific Investigation) will entertain, involve and challenge the reasoning abilities of budding scientists and allow them to exercise their “head top” computers as they develop the skills of observation, reasoning, logical problem solving and scientific method. Would you like to understand more about the diversity of forensic science? Do you have the skills to analyse a complex problem? In the Einsteins Club, you’ll combine your natural curiosity with scientific knowledge and method to measure, test and analyse a mysterious crime in Semester 1 and plan your escape from the ‘Dungeon of Doom’ in Semester 2.

Semester One:

Seeing is believing! Einsteins will investigate how vision works, how a mammalian eye is constructed, what lenses can do, and how scientists have enhanced human vision so as to be able to see microscopic worlds and distant galaxies. We’ll use microscopes, lenses, and light boxes to develop skills that allow us to explore the physics of light and vision. We will also have a hands-on encounter with the biology of dissection. Young Einsteins will also make designs of human eyesight. With these skills under our belt, Einsteins will move on to encounter the science behind food. We will test what is in food using fire, acid, microscopes, and a variety of chemicals. Finally, we will combine all the forensic skills and knowledge we have mastered this semester to solve a baffling crime. A single clue will lead the Einstein team down a path where only science will save the day.

Semester Two:

In the second semester, Einsteins will begin a series of exciting construction challenges. We will build rockets and racers, bridges, towers and catapults, and find as many ways to become airborne as we can. Of course a few explosions and implosions might just happen along the way! Finally, using all the skills, strategies and science we have learnt over the semester, the final challenge must be faced: ‘Escape from the Dungeon of Doom!’ This will require cunning and clever design to construct solutions that will overcome the seemingly impossible obstacles.



Requirements

Well stocked pencil case
A4 notebook

About the Presenter:

Christine Ireland is Curriculum Coordinator at Elwood College, Melbourne, and a Science and English teacher. She completed her Masters degree in 2006, specialising in Gifted Education, and is President of the VAGTC. Christine has lectured in Gifted Education at the University of Melbourne.