



## 'Equations that Changed the World'

Years 1, 2 and 3 - Term 2, 2018

Fee \$100

Wednesday, 13 June

Heathdale Christian College, Derrimut Rd, Werribee

8:45am-3:10pm

The brightest minds in history from Pythagoras to Albert Einstein and beyond, have used mathematics to lay the foundation for how we measure and understand our universe. In this term's Eureka program, curious gifted students will explore some of these important maths equations.

### 'Farmer Pythagoras' Prize-Winning Problem' with Jenny Lee

Farmer Pythagoras is in trouble! His perfectly fenced fields of prize-winning pumpkins and ponies are no longer perfect after his plump pigs escaped from their pen and destroyed all his fences. Oh no! Now he needs your help to measure and re-build the paddocks in the shape of right-angled triangles using geometric tips and tricks from ancient times. Armed with a knotted rope and a set square, can you help him protect the pumpkins, placate the ponies and put the pigs away before he enters his produce in the upcoming Royal Show? During this workshop we will learn about Pythagoras' Theorem and the importance of this fascinating equation. **Please bring a ruler, glue stick and scissors.**

*Jenny has completed a Master of Teaching with Mathematics and Science methodologies. She has been teaching Mathematics for many years and worked with students, parents and teachers from various backgrounds. She is excited about delivering differentiated learning to highly able students in fun and exciting ways.*

### 'Pyramids and Postmen' with Robyne Bowering

In this workshop we will explore the formula which Leonhard Euler devised to describe the patterns he observed in different three-dimensional shapes. We will work with these mathematical patterns, look for relationships between different features of shapes and describe this relationship as a mathematical equation. In doing so, we'll embark on a quest to catalogue the Tsar's crystals, explore the pyramids and even attempt to solve the riddle of the 'Seven Bridges of Konigsberg'. Then we'll take a look at how Euler's equation can be used to solve fascinating real-world problems, including helping the postman to work out the most efficient route for his mail delivery round!

*Robyne is a passionate and enthusiastic educator with over twenty-five years' experience teaching primary, secondary and tertiary students. Robyne is particularly keen on providing bright students with opportunities to explore their ideas and thinking through a range of hands-on, minds-on activities.*

### 'Napier's Rods to the Rescue' with Louise Flourentzou

Evil genius, Al Jebra has wiped all modern calculating devices off the face of the Earth as part of a terrible plan to become the only person who can solve mathematical problems. This has created sheer chaos as no-one can seem to remember how to multiply and divide large numbers! We'll have to go back four hundred years before the invention of the mechanical calculator to re-discover a clever method that makes multiplying large numbers easy. This method, invented by Scottish born mathematician John Napier, enables anyone who can add and subtract to multiply and divide! Can you use Napier's method of calculation to put humankind back on track? We're counting on you!

*Louise is an experienced teacher with a special interest in gifted and talented education. She has always found numbers fascinating and loves how they can be used to explain so much about the world around us. Louise has previously presented at G.A.T.E.WAYS festivals and is looking forward to sharing her love of all things mathematical in the Eureka program.*

✂-----

Program: **Equations that Changed the World**

Venue: **Heathdale Christian College**

Year Levels: **1, 2 and 3**

Time: **9.00 – 3.10 (Registration 8.45am)**

Date: **Wednesday, 13 June**

Cost: **\$100**

Child's name: \_\_\_\_\_ Year Level: \_\_\_\_\_ Parent Mobile: \_\_\_\_\_

Parent's name: \_\_\_\_\_ Contact email address: \_\_\_\_\_

- Please nominate my child **OR**  Please **do not** nominate my child
- I have checked the dates of the program to ensure they do not conflict with school commitments (e.g. school photos, excursions etc.). Once enrolments are finalised, G.A.T.E.WAYS is **unable to give refunds or credits.**
- I understand that once nominated, online payment must be made to confirm my child's place in the program. *Please do this as soon as possible as places fill very quickly.*
- I understand that I will need to arrange transport to and from the venue listed above.

Parent's/Guardian's signature: \_\_\_\_\_

Date: \_\_\_\_\_