



G.A.T.E.WAYS 'MATHS UNDER COVER' - TERM 2 2010

YEARS 1, 2 and 3

Thursday 22nd April 2010

Fitzroy Primary School, Napier Street Campus, Fitzroy

8.45 am – 3.10 pm

G.A.T.E.WAYS and Fitzroy Primary School are delighted to invite gifted students to 'Maths Under Cover'. When you watch animated movies, crack codes or even explore the natural world, you are immersed in the same maths principles that people have been using for thousands of years, across countries and continents. Join us as we go undercover and discover the old (and new) mathematics hidden within our daily lives. In this upcoming *Eureka* program, participants will be involved in three maths-based enrichment and extension workshops created and presented by a talented team from G.A.T.E.WAYS. There will be lots of hands-on activities, discovery and fun.

'Fantastic Fractals' presented by Adele Costello

Most maths we study in school today is based around mathematical concepts, patterns and formulas that have been around since the dawn of time. Fractals are new and exciting! So new in fact, that they are right this very moment being studied by leading mathematicians the world over. But just what is a fractal image? Simply explained, a fractal image is a rough or fragmented geometric shape that can be split into parts, each of which is a small copy of the original image. Fractals are everywhere! You only have to look at a mountain range or any weird and wonderful image hanging in a modern art museum. But what has this got to do with mathematics you ask? Become an undercover maths snoop and expose the hidden mathematical concepts, formulas and principles behind fractal images. Together we'll explore examples of fractals through the art work of Salvador Dali, marvel in fractal examples created by Mother Nature and even produce a fractal image to take home.

Adele Costello graduated with Honours from Deakin University with a double degree in Education and Arts. Her involvement over the past fifteen years with Tournament of Minds has allowed her to develop a sound base in the application of curriculum, thinking skills and gifted education in schools. Working extensively with primary and secondary students, Adele has a passion for watching gifted students make exciting discoveries.

'National Emergency: Calling All Cryptographers!' presented by Nicola Vaughan

Help! We are at war and an enemy attack is imminent. Only coded messages can be trusted to send important information across to our allies. We must develop a code and use it to encrypt our secret messages and instructions. In this frenetic workshop, we will discover codes and explore their famous uses while we investigate some mathematical cryptographic methods such as grid codes, number codes and frequency analysis statistics. This knowledge will enable us to develop our own secret codes and possibly even decrypt messages sent by the enemy side. This is important business - the future of our country depends on it!

Nicola Vaughan has a BSc with Honours in Medical Microbiology. She is currently completing a Masters in Environment and has presented many workshops for G.A.T.E.WAYS, often as the fervent Professor Noodle-Nutte.

'Animation Creations' presented by Melanie Garner

Enter the world of animation and meet some of your favourite movie characters such as Nemo, Buzz Lightyear and Bugs Bunny. Come on a journey of discovery and be amazed by the process of turning still pictures into moving images. We'll look 'behind the scenes' to uncover the mathematics involved in designing and creating animation films. Then you'll use this knowledge to create your very own animation! Explore the elements of time and sequence and use your understanding of spatial relations in this highly interactive and hands on session that will change the way you watch movies!

Melanie Garner is a primary and secondary trained teacher. She has been successfully involved in short film production for many years. Teaching students about animation is a keen interest of hers and she enjoys challenging students through developing their creativity, abstract thinking and problem solving skills.



PARENT EXPRESSION OF INTEREST FORM

'Maths Under Cover' - Years 1, 2 and 3

Date: Thursday 22nd April Venue: Fitzroy Primary School, Napier St Campus, Fitzroy Cost incl GST: \$82.50 cheque or \$84.50 credit card

Child's Name: _____ Phone: _____

- ✓ I wish you to register / I do not wish you to register my child for 'Maths Under Cover' (delete as preferred).
- ✓ I understand that my child does not have a confirmed place until advised by coordinator.
- ✓ On confirmation I will complete an application form and send it with payment to G.A.T.E.WAYS within 7 days

Parent's/Guardian's signature: _____ Date: _____

Parent's Email: _____

Please return to the member of staff coordinating the program at your school **BY TOMORROW** as programs fill very quickly.

For further information about G.A.T.E.WAYS please go to www.gateways.edu.au