

GATEWAYS FESTIVALS

G.A.T.E.WAYS has pleasure in inviting gifted and talented
Year 3 and 4 children to a 'FESTIVAL OF WORKSHOPS'

hosted by Waverley College, Birrell St, Waverley

MONDAY 10 DECEMBER and TUESDAY 11 DECEMBER 2018

PROGRAM	Monday 10 December	Tuesday 11 December
1	AM: Eye Eye, Captain! Full S PM: Light up Your Mind! Full S	AM: Eye Eye, Captain! Full S PM: Light up Your Mind! Full S
2	AM: Muddling Mazes and Addling Labyrinths M/P PM: Cluedunnit?? Program Full L	AM: Muddling Mazes and Addling Labyrinths M/P PM: Cluedunnit?? L
3	AM: Did Plato Visit Edron? M/P PM: The Mysterious Case of the Poisoned Picnic S	AM: Cipher of the Century! M/P PM: The Mysterious Case of the Poisoned Picnic S
4	AM: In the Shadows A/E PM: Sword in the Stone – Myth or Reality? L	AM: In the Shadows A/E PM: Sword in the Stone – Myth or Reality? L
5	AM: Adventures in the Space and Time Continuum S PM: Build it up, Build it Higher! Program Full STEM	AM: Ring, Ring...Why Don't You Give Me a Call? S/T PM: Spectacular Spin-outs & Fantabulous Flops H/S
6	AM: Ring, Ring...Why Don't You Give Me a Call? S/T PM: Great Science Mysteries Program Full S	AM: Hideous Horrors A/L PM: Paper Pizazz A

S–Science T–Technology E–Engineering M–Maths L–Language H–History A–Arts: Creative or Performing P–Problem Solving

Please choose one program only per day. When enrolling for both days, be sure to check you have selected a different program number for each day. Workshops cannot be mixed and matched. The fee is \$105 per day.

Please bring a notebook and a well-stocked pencil case with a grey lead pencil, coloured pencils, a capsule sharpener, ruler, bright textas, scissors and glue.

Please also bring along any additional materials listed for your program.

Enrolment Procedure:

- Go to the G.A.T.E.WAYS website www.gateways.edu.au and follow the links to 'Parent Enrolled Programs' on the Home Page. Select 'Festivals'.
- Click 'Enrol' next to Existing Account Holder OR 'Register' next to New Account. Please do not create a new account if your child has attended G.A.T.E.WAYS in the past.
- Complete fields then click 'Continue to Program Selection'.
- Check the box under 'Select' for the festival required, then 'Continue to Unit Selection'.
- Select 'Enrol' for the days required. Only programs with availability can be selected.
- Select a program and then 'Continue to Home Address'. Complete all fields and proceed to payment page.
- If you require assistance please phone Sydney G.A.T.E.WAYS on 02 9940 0303

Enrolments open Monday, October 22

Year 3 and 4 Festival Workshops

EYE EYE, CAPTAIN!

with **RENGEN PARLANE**

Welcome aboard the HMS Glaucoma! Captain Scallywag has been running a tight ship for the past 10 years, but he is now facing a huge problem – his vision is deteriorating...and fast! As a result, Captain Scallywag has called on you, his team of loyal shipmates, to get to the bottom of his eyesight dilemma. Together with your fellow crew members, you will perform several tests to explore the inner workings of the eye and to pinpoint the possible issue in time to save the Captain's sight...and save yourself from being forced to walk the plank! As luck would have it, you stumbled across a treasure trove of pig's eyes during your last haul. You will be able to perform dissections to assist in your eye exploration, and then use the knowledge obtained to confirm a diagnosis and cure. Hurry up - the clock is ticking! Captain Scallywag can't sail this ship if he has to wear TWO eye patches!

NB: A levy of \$3 per student is attached to this workshop to cover the purchase of pigs' eyes.

LIGHT UP YOUR MIND!

with **LAURA JADE HINDES**

Did you know you have over 100 billion neurons that produce your thoughts, memories and actions? But what exactly is a "brainwave"? And is your head really full of electricity? How does your brain behave when you're calm or when you are solving a maths problem? During this workshop, we'll strap on an electroencephalographic headset and watch our thoughts come to life. Using *Brainlight*, an interactive artwork you control with your mind, we'll explore the exciting world of neuroscience, creativity, data visualisation and the mysterious world of your brain! Experience firsthand how a non-invasive EEG (Electroencephalography) device works and then imagine other creative applications for bio-controlled devices in the future, eg. mind controlled wheelchairs. Let's see how the future might look if the fields of art, design, science and technology collide in unexpected ways!

MUDDLING MAZES AND ADDLING LABYRINTHS

with **VANESSA RYAN-RENDALL**

After falling asleep while reading your favourite book, you've woken up, not only with a bump on your head but also in a strange location surrounded statues, by walls of towering vines, and too many corners! Books you have read about make believe lands spring to mind as you wind your way down pathways leading to dead ends, try to clamber over walls that are too tall and slippery, and make yourself dizzy as you are overwhelmed by spiral designs. You will need all your skills not only to escape these mazes, but also to understand why mazes and labyrinths were built in the first place and what makes each so different. Is it possible to escape this maze? Can there be labyrinths inside this maze? We will explore different types of mazes and labyrinths throughout history and work out why they were needed. Using some wordsmith skills, we will decipher riddles and create our own maze games.

CLUEDUNNIT?

with **DIANA THANOS**

Ever wondered 'whodunnit' when faced with a crime scenario, or how they did it, but no idea where to start? Welcome to an engaging writing workshop where you will enter the fictional world of Laden Manor. Join the six colourful characters from Cluedo - Colonel Mustard, Miss Scarlett, Professor Plum, Reverend Green, Mrs. Peacock and Mrs. White - as you write your way in (or out!) of a unique mystery story. We will create character profiles, identify suspects, explore clues and create a suspenseful storyline in an exciting learning environment. All the elements of mystery writing, and your detective skills, will be utilised to convince or conceal innocence or guilt. Will you be able to write your way into the legend of Laden Manor? Use your creative writing skills to devise motives, create intrigue and suspicion, identify or throw in red herrings, generate cliff hangers and more on your quest to solve the mystery at Laden Manor.

DID PLATO VISIT EDRON?

with **KATRINA SIMS**

It is the year 2060 and, in a galaxy far, far away there is a small planet called Edron whose metals are made up of five special polyhedrons. As a team of Edronite architects you have been tasked with designing and creating models of the buildings for a new town centre using only these five special polyhedrons. But what has Plato got to do with these shapes, you might ask, and why are there only five of them? You will soon find out as you discover their unique properties when applying some very sophisticated geometry to the connection of these five platonic solids into magnificent buildings of the future.

THE MYSTERIOUS CASE OF THE POISONED PICNIC

with **RENGEN PARLANE**

What a year it has been for the Sydney Public Health Department! Each and every day, the department is called upon to investigate a multitude of food poisoning outbreaks. Short-staffed and overworked, the department has recruited you to help them in their quest to make Sydney a safer city. Before you take up your new position, you will need to do plenty of training. Together with your fellow recruits, you will learn about bacteria, how they can be isolated from the environment and how scientists can identify them. You will then use your newfound knowledge and skills to solve your first on the job case – the mysterious case of the poisoned picnic! We will need to call upon our best investigative skills in this bacteria-buzzing whodunnit!

IN THE SHADOWS

with **ZUZI FORT**

Shadows are scary and dark, and they lurk in dangerous corners, right? Wrong! Shadows are a place where magic and mystery and fantastical beasts dwell. All you need is a light, your hands, a wall or a screen...and lots of imagination. It is when light meets dark that the magic happens. Shadow puppetry is one the oldest forms of puppetry and allows you to fashion intricate designs and stunning visual effects. During this workshop, we will explore its history as we create our very own shadowy heroes. We will pen an

epic saga, infusing struggles between good and evil, interwoven with comedy. We will decide on the characters, play with light intensity and different gels to create colour, explore the placement of puppets to understand how the size of the shadow changes, and use percussion and other sound effects to create a complete sensory experience.

SWORD IN THE STONE – MYTH OR REALITY?

with ALLISON GREENLAND

King Arthur was the boy who became king by pulling the magical sword, Excalibur, from a stone. Legend has it that King Arthur hired a powerful wizard called Merlin to design a famous table...thus introducing us to the *Knights of the Round Table*. Even though stories about Arthur and Merlin have been around for many years, we are still uncertain about how much is reality and how much is myth. An exploration of *The Sword in the Stone* will help us to decide. The story of King Arthur is rich with high fantasy and mythology, it provides life lessons and answers to real-world problems, and it is sprinkled with a little bit of magic. We will create stories of our own that incorporate some of the key characteristics of this legendary tale...will yours be powerful enough to stand the test of time?

ADVENTURES IN THE SPACE AND TIME CONTINUUM

with KATE PARKER

Move over Einstein, we're approaching the speed of light and heading for a wormhole! This investigation into the universe of astrophysics begins with the Theory of Relativity and ends in a time and dimension far, far away. Can you define time? Do you know how space and time interact? What do we need to do to make time travel possible? Can we estimate the size of the universe in light years? We'll need to learn the physics, run a few experiments and consider the ethical ramifications of time travel before designing our craft. And then the edge of the universe (if it exists) is our only limit!

BUILD IT UP, BUILD IT HIGHER!

with KATRINA SIMS

Have you ever wondered how those incredibly tall cranes used on huge apartment blocks are constructed and lift such heavy materials quickly up to the top without toppling over? Did you know that there are cranes used to build cranes? Using gears, pulleys and counter weights, you will construct manually operated cranes and powerful motorised ones. You will be amazed at how these flimsy looking contraptions can achieve such amazing feats. In this workshop you will discover the physics of how the ratios of gears, the number and configuration of pulleys and counter weights enable cranes to lift heavy weights to great heights.

RING, RING...WHY DON'T YOU GIVE ME A CALL?

with RAEMA MARTYRES

Ring, ring...ring, ring. Who's there? Is it a pigeon or a plane? No, this isn't some kind of *phony* joke, it's Mr Bell here calling to say that it's time to *dial* things up and take your learning *off the hook*. From pigeon post to Morse code, the horseback postman to telegrams, the evolution of human communication across vast distances has been phenomenal. One of the most significant inventions has been the telephone...and further innovations never seems to stop. Do you even recognise telephones from the past? What technological advances have meant that we are now able to communicate using mobile phones? What do you think the next step will be in the history of communications and telephones? Together we'll trace the history of the telephone, experiment with sound travel and then ring our future selves to ask what phones will look like in the years to come. Put your creativity to the test and see if you can design one.

GREAT SCIENCE MYSTERIES

with KATE PARKER

Doing science is more than firing up bunsen burners and building frothing volcanoes. In fact, science can solve some of the world's most baffling mysteries. How did the Koa tree travel half way around the world? What causes the sailing stones in Death Valley, California to move themselves across the desert? How were the pyramids built? Do real zombies exist? Where is the Lost City of Atlantis? Bring your sense of adventure and your best detective instincts, and we'll solve some of the most fascinating mysteries science has to offer!

CIPHER OF THE CENTURY!

with AMIN MALEKPOUR

Crowds line the streets, the stadium is packed with spectators, a palpable atmosphere of excitement and anticipation fills the air...the time has finally come (trumpet sounds): the Cipher Games have arrived! People of all ages have come from the far corners of the earth to compete in the intellectual games that only run biannually, slotted neatly into the years not occupied by sporting Olympics. Coding and ciphering skills are sharpened as competitors warm up with some encryption and decryption of some of the classics: Pigpen cipher, Caesar cipher, ZigZag cipher, Matrix, ASCII and Binary coding. Then for the main event (another trumpet sound please): competitors will work in teams to generate a cipher aimed at stumping the opposing teams. Will yours be the Cipher of the Century?

SPECTACULAR SPIN-OUTS & FANTABULOUS FLOPS

with AMANDA O'NEIL

Success is not the absence of failure; it's the persistence through failure – Aisha Taylor

We've all heard stories, read memes and had pep talks about failure being good for us...but how do we truly embrace failure as a critical element of achieving success? Join us for this episode of epic fails as we laugh ourselves silly at some of the most humorous and fantabulous flops in history and learn from some of the greatest failures of all time. Let's go beyond the spectacular spin-outs of famous failures, like those of Thomas Edison, Einstein and Steve Jobs, to meet some others who will make us laugh as they inspire us. Let's also look at the kind of physiological and psychological impact failure has on our bodies and minds, so we know how to use

it to our advantage. Let's see how failure fits into the scientific research model that rotates through theorising, hypothesising, testing and analysing to get closer to the answer. We'll ask ourselves some big questions about the part played by society, regret, 100-year old wisdom and the celebration of failure in building strategies that lead to ultimate success. So, get your resilience on as we get ferocious with failure and prepare ourselves for the next time we fudge it BIG!

HIDEOUS HORRORS

with EMILY TAYLOR

"Something truly horrible has happened. Something hideously, heinously, horrendously horrible. People aren't afraid of us anymore!"

Witches, goblins, werewolves, monsters and vampires have all come together to try and solve this horrific dilemma. With people no longer afraid of them, stories have lost their "oomph". Halloween no longer exists. No longer inspiring gasps and screams, The Horribles are treated just like everyone else - and they hate it. Something must be done. Character, caricature, archetype and situation comedy will all be explored in this drama session delving into the bizarre, the grotesque and the utterly absurd. Can The Horribles reclaim their status and thereby save the world from boredom? It's time to get hairy, get warty, get fanged - and find out! ***Please wear loose, comfortable clothing so you can move around.***

PAPER PIZAZZ

with ANNA JAHJAH

Video games are soooo 2017...this imaginative workshop relies on paper power! You are welcome into the fold as you join us in a very special *Origami Challenge*! Can you make origami in the dark? Or using only one hand? Or harder still, using only your feet? Let your fingers do the folding as you learn to master the art of origami. The valley fold, the mountain fold, the swivel fold or the spread and squash...who knew there were so many folds to conquer?! Once you have a few new techniques under your belt, then let The Great Origami Challenge begin! A set of frisky fingers, a love of geometry, loads of imagination and an appetite for solving puzzles should be all you need to have a world of fun in this workshop.

Our Festival presenters are a brilliant bunch! To learn more about them, head to

www.gateways.edu.au/programs/festivals/end-of-year-festivals

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