

# The BRAINWAVES Club

## Semester 1 2019: DinoMites – Year 1

Venue: North Curl Curl

### A World of Opportunities

This semester, the DinoMites are going to explore some of the coolest jobs on the planet. We will scour the globe from Germany to Italy, Turkey to Australia, the Pacific Ocean to Norway and from America to China. Pack your passports while we learn fascinating facts from the ancient world up until the present time! DinoMites will invent, discover, investigate, study, experiment, design, engineer, build, report, create, write, smell some truly horrible things and fight for Mother Earth!

*“Only those who dare to fail greatly can ever achieve greatly!” – Robert F. Kennedy*

#### 23 February

##### Meeting 1 – Welcome to the World Inventors Society!

**Focus: Science, history**

DinoMites leader, Inventor Kerrie, welcomes her hard-working, recruit inventors to the prestigious World Inventors Society. To be accepted in to this society, young inventors must have an amazing, innovative idea for an invention. During this meeting, inventors will investigate some of the craziest inventions ever and case study some of the biggest invention failures of all time. Inventors will report back to the group some of their surprising discoveries! Inventors will create their own invention ‘failure’ stories to present and take home.

#### 9 March

##### Meeting 2 – Biologist for a Day!

**Focus: Biology**

Today, Biologist Kerrie welcomes her curious junior biologists to the lab to investigate the value and properties of the largest human organ - HUMAN SKIN! Biologists will delve into research and experimental activities which investigate the properties and anatomy of skin, how it replenishes itself, how it heals itself, what a bruise is and what skin cells do and look like. We will cover all things ‘skin’ just as thoroughly as skin covers us!

#### 23 March

##### Meeting 3 – Are you an Activist?

**Focus: Environment, natural science**

Welcome young inventors and entrepreneurs! Today, Activist Kerrie will splash her junior activists into the currents of the Pacific Ocean which they will float upon until they arrive at the Great Pacific Garbage Patch. Here they will be challenged with the problem of how to solve this modern day, very real, ecological disaster. The DinoMites will be called on to create diagrams of inventions that they believe could solve this catastrophe and present them to the group. Together, DinoMite activists will evaluate which inventions would work best in this treacherous part of the ocean. Next, they will journey to the Netherlands and meet one remarkable young inventor and entrepreneur who IS tackling this problem.

## **6 April**

### **Meeting 4 – Engineering through History**

**Focus: Engineering, history**

Today our DinoEngineers will take off with Engineer Kerrie in the DinoChopper to Turkey. Here we will discover the oldest bridge in the world! Junior engineers will look closely at the bridge, and the materials it has been made with, to explore why it has lasted so long. How was it created and who was behind its creation? Junior engineers will look at other historical and modern types of bridges and investigate the use of supports and other strategies that structural engineers have used to create bridges. Junior DinoEngineers will create their own bridges, test them to see how strong they are, and discover ways they could be improved!

## **11 May**

### **Meeting 5 – 2D-3D Detectives**

**Focus: Mathematics, problem solving**

Super shape detective Kerrie has created some brain-bending problems for us to solve using 2D and 3D shapes. DinoMites will be asked to use spatial reasoning to solve puzzles using nets and other weird and wonderful shapes. Challenges will be set for finding and creating patterns, building castles from 2D plans and fixing mistakes made by a clumsy tiler. Mathematicians will need to estimate, predict, check, find and use symmetry, visualise, analyse data and critically follow chains of reasoning to get through today's many challenges... pack your thinking caps DinoMites!

## **25 May**

### **Meeting 6 – Gallery Writers**

**Focus: Art, writing**

Author Kerrie has transformed the DinoMites club room into a virtual tour of the National Gallery. Together we will wander the halls and learn to appreciate some amazing Australian artwork. As we enter the permanent collection in the gallery, we will pass some iconic paintings of Ned Kelly and stop to gaze at some Australian impressionism and modern art. We are in luck; the famous Australian portrait competition 'The Archibald Prize' is showing so we will choose our favourite pieces, working out why we like them and the execution behind them. The DinoMite authors will create and tell the stories of their favourite portraits, incorporating the mood of the painting and making sure they have an exciting resolution!

## **15 June**

### **Meeting 7 – The Case of the Missing Apple!**

**Focus: Forensic science**

Every day at 2pm, Club Leader Kerrie eats her healthy and delicious afternoon tea... but not today! Pop on your detective hats, DinoMites, because someone has stolen your Club Leader's snack! Come help Kerrie find out who the culprit is. Junior detectives will be set brain-bending challenges, including the reading of invisible messages, learning how fingerprints are used in detective work, collecting and collating the group's fingerprints and breaking codes. Who will discover the criminal in our midst and find Kerrie's beloved apple?

## **29 June**

### **Meeting 8 – Hygiene Historians**

**Focus: History, science**

Join us today as we rummage through the grossest history out there - the history of hygiene through the ages. DinoMites will form groups and jump into the DinoTime Machine where they will investigate and record their findings on many disgusting questions like... What happened to poo before toilets? What on earth is a nose gay? Which cultures invented bathing and what happened before that? Who are the smelliest characters in history? Who invented soap, what is it made of and how long ago was that? What about toothpaste? Why was perfume invented and by whom? Finally, we will discover how wearing makeup actually made people very ill in ages past!

**What to bring:**

Please bring a notebook and a well-stocked pencil case to each meeting as well as a hat, drink and snack for the break (no nuts please).

**About the Club Leader: Kerrie Parry**

**Kerrie** is an experienced primary school teacher and G.A.T.E.WAYS presenter who has a passion for teaching gifted and talented children. She loves the freedom G.A.T.E.WAYS gives her to create interesting and engaging workshops. A mother of three, she has completed the Mini-COGE (Certificate of Gifted and Talented Education) and is currently studying the full COGE at the University of New South Wales. Kerrie is excited to be presenting this thrilling program to the DinoMites Club and can't wait to get your children interested, problem-solving, thinking and talking about these out-of-the-box topics!