

A G.A.T.E.WAYS JOURNEY

for curious gifted Year 1 and 2 children

with a love of hands-on science

'A Scientific Adventure with Aya & Zed

in the Land of Opposites'

G.A.T.E.WAYS is an independent organization offering challenging and enriching activities and experiences to develop and extend highly able children. This *JOURNEY* for both girls and boys will run over four sessions.

Aya and Zed were having a great time digging in the sand when suddenly a gaping hole appeared in front of them. Without a moment's hesitation, and without thinking of the consequences, they dropped their buckets and spades and jumped into the hole. But this was no ordinary hole. No, it was a very deep, dark shaft. Like Alice in Wonderland, they tumbled down, down, down until they stopped in a rather dishevelled heap at the bottom. As they untangled themselves, they caught sight of a bright yellow door with a painted sign saying, *Way to the top*. How curious! Are you brave enough to join Aya and Zed as they cautiously open the door to discover who...or what awaits them? Will they be able to make it to safety and back up to the top of the shaft?

Week 1: Bobbing Up and Down

The door creaked open to reveal a gently rippling, expanse of deep blue water. Aya and Zed stepped onto the nearby wharf to be greeted by a rather amiable-looking gentleman in uniform with a badge identifying him as Captain Gravity Force. "Welcome to Lake Up and Down," he said, "I take it you are looking for a way out of here. But before I ferry you across the lake, you must earn your passage by helping me with some experiments and other activities about the force of gravity (which pulls things down) and buoyancy (which pushes things up)." As you join Aya and Zed, you will make objects float, sink and hover and discover what makes them behave this way. Are you ready to be perplexed, amazed and intrigued? Are you prepared to get your hands wet? If so, hop on board and let's get this journey across the lake underway. Hopefully we'll be one step closer to 'getting out of this hole'.

Week 2: Circling Round and Round

When Aya and Zed stepped out of the ferry and onto the jetty at the other end of the lake, Aya said, "Look there's another door which says *Way to the top*." This time they opened the bright green door with more confidence only to find a well-trodden path signposted *To The Positive and Negative Railway*, a line which, according to the signpost, snaked its way around bends and through tunnels to what must certainly be their next destination. The energetic conductor, Mr Copperfield Wire (Copper for short), helped them on to the platform. "You are welcome to board the train, but first you must pay for your tickets by completing the compulsory traveller tasks designed to help you explore static and circuit electricity." So, let's get charged up and ready to go with Aya and Zed. All aboard the Positive and Negative Express!

Week 3: Sticking to the Task

At the railway terminus Aya and Zed are confronted by yet another door (this time a bright red one) announcing a gateway to North and South Island. A series of colourful photographs taped to the door appeared to be advertising a very attractive natural wilderness. Once again, a very small sign near the door handle identified what was beyond as the *Way to the top*. "I wonder if we're ever going to make it back to the top," whispered Zed to Aya as they stepped through the doorway. "Don't worry, you're halfway there," a voice boomed. Just then a rather rotund man stepped out from behind a gigantic mountain ash tree. "I'm Park Ranger Pointer. The way to the last door is via the forest," he added. "Before you can set off though, you'll need to earn a park permit. In order to qualify for a park permit, you must learn about magnetism and magnetic fields and show that you can use a magnet and compass." Are you mesmerised by magnets? Do you relish the power of magnetic force? Grab your backpack and make your way through the lush green forests of North and South Island! But be careful not to get lost!

Week 4: Rising to the Top

When Aya and Zed emerge, footsore and weary from the dense undergrowth, they arrive at a gleaming purple door. *Way to the top* said the sign. The door creaked open to reveal the High and Low Elevator, which would hopefully take them back up to the surface. To power it up though it was necessary for them to apply what they were soon to learn about air and water pressure from a range of practical activities. Are you and your friends prepared for the final challenge? Are your fine motor skills honed? By the end of today, with you hopefully being a whole lot wiser, you should be ready to join Aya and Zed on an elevator ride to the top of the shaft and back out of the hole in the sand. What an amazing adventure!

Homework Requirements & Assessment

Homework may be set after each session to give students extra time to explore the new concepts. At the end of the program a short, written report will be completed on each student and forwarded home to parents. A copy should be made and forwarded to the school.

What to bring: Please bring a labelled, small photograph of yourself; a snack (no nuts please), and a stamped, self-addressed DL envelope for your report. (Write your name on the back.)

About the Presenter

Maureen Frith has a Bachelor of Arts Degree, a Diploma of Teaching and a Graduate Certificate in Gifted and Talented Education. She has taught for 45 years in both Primary and Secondary schools and has performed the role of Coordinator in Science and Technology, presenting enrichment and extension programs for students and professional development for teachers. She has helped to develop curricula, including VELS Science and Thinking Skills documents. She is an active member of the Science Teachers Association and the Science Talent Search Committee. For many years she has been a club leader for the G.A.T.E.WAYS Brainwaves Club. She encourages students to be active enquirers, develop higher order thinking skills and to share their knowledge and appreciation of the amazing universe in which we live.



