

GATEWAYS JOURNEYS

G.A.T.E.WAYS invites high-ability Year 3 & 4 students with a love of maths to ...

The Adventures of Pirate Zeke and the Black Barnacle



The day was miserable: cold and wet. Zeke stood at the window, drawing faces in the water droplets which had condensed on the glass inside. His mother, seeing his sad, dejected face, suggested that he go and play in the attic, which was dark and delightfully mysterious, full of musty old relics from the past. "Great! Can Colin and Harriet come over?" After about an hour of rummaging through old boxes and trunks, Harriet cried out, "What's this? A treasure map?" They all crowded around and stared at the crinkled paper that was torn and dusty with age. "I wish I were a pirate," said Zeke, "Then I could go and find the treasure and we'd all be rich!"

Suddenly there was a brilliant flash of light and there they were - Captain Zeke, the most feared pirate who had ever sailed the seven seas, Quartermaster Courageous Colin and First Mate Heroic Harriet, catching the breeze in their speedy sloop, the Black Barnacle, as it cut through the waves at a clipping pace.

Join Captain Zeke and his crew on his streamlined sloop, The Black Barnacle, as he navigates his way across the 'seven seas', occasionally encountering his enemy Cutthroat Kate, one of the fiercest pirates in the history of the world. During the journey, you will learn how to navigate the old-fashioned way with a magnetic compass, protractor and ruler. You will be responsible for plotting the ship's course, avoiding treacherous reefs, rocky outcrops and, of course, Cutthroat Kate. Will you be able to keep the Black Barnacle out of harm's way and meet some dangerous challenges?

Requirements:

- A well-stocked pencil case with pens and pencils for writing and an exercise book.
- A snack or lunch as required (adventuring is hungry work!)

Session 1: Are you coordinated?

What's this pinned to the BB's sail? A message from Cutthroat Kate from aboard the brigantine Golden Globe: "Ha! Ha! Trick'd ya! During the night my cunning crew crept aboard your ship, stole a chest of gold doubloons and we have buried them!! Bet you can't find them you lily-livered lot'.

To recover the loot, can you help Captain Zeke plot coordinates on the map that accompanied the message and locate the chest? And by the way, that's not all! Oh no, Cutthroat Kate has also kidnapped the ship's pilot and navigator. Arrrrgh! Along with the remaining crew, your task will be to use latitude and longitude to locate the deserted island where they have been abandoned and rescue them before they die of exposure or starvation. Are you up to the task?

Session 2: X or Y?

The Black Barnacle is making good progress but Captain Zeke is puzzled. Nothing seems to add up. Either the directions are all wrong or he is reading the map the wrong way. Which comes first: the X or the Y? He needs your help to understand all these coordinates. They seem to be in groups. Is there some kind of pattern? Is it a kind of code? Is it a maze? Are they clues to the next leg of the journey? Today it is your task to help Captain Zeke unravel the mystery of the convoluted coordinates and get back on track to finding the treasure.

Session 3: To The Four Corners

By now Captain Zeke is cross and impatient as he has had no luck to date! In his anger he has decided to take the Black Barnacle to the four corners of the earth, meeting whatever challenges come his way, in order to locate that elusive buried treasure. He has no fear of negative numbers whatsoever, as you are there to show him how to use them to guide the Black Barnacle through the Straits of Wrath, the Corrugated Canals and the Rocks of Death. Now is the time for reflection, translation and rotation as the Shape Islands draw near and we close in on our destination. Will you be able to interpret the instructions, carry out the necessary transformations and identify the correct group of geometrically shaped islands, which safeguard the treasure?

Session 4: How Are You Bearing Up?

Now it is time to get out your directional compasses and pinpoint the *exact* location of the buried treasure. It's time for precision. You will need your trusted ruler and protractor too. Join Captain Zeke in getting your bearings and zooming in on the spot to dig. "Ah! The treasure at last" Now all we have to do is find our way back home!

Homework:

Homework may be set after each session to give students extra time to explore the new concepts.

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 also helped to develop curricula for the Victorian Curriculum and Assessment Authority.

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, specialising in Science, Technology and Mathematics. As part of her Bachelor of Arts degree Maureen has studied Pure Mathematics, which she is qualified to teach to Year 12. Since then she has maintained a keen interest in Mathematics, extending her own skills and knowledge, as well as providing extension activities in Mathematics for gifted and talented students in her school. 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.