A G.A.T.E.WAYS JOURNEYS PROGRAM

for gifted Year 3 and 4 children

with a love of mathematics

'Meatballs, Multiples, Measurement and More!

..a mathematical thinking and problem solving adventure

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* will run over four sessions.

Come on a series of mathematical and problem solving adventures with Stella and Sam and their magical 'Go There Square'. You'll meet quite a few quirky characters on the way: Rumpelstiltskin and his multiplication stick, Mrs Comfort and her dilemma about area and perimeter, a Greedy Triangle who wants more and more sides and Miss Bloom who learns all about fractions from her guests. Sounds intriguing? Definitely. Sounds like fun? Absolutely. Sounds challenging? You bet!!

The Revenge of Rumpelstiltskin

Have you ever wondered how multiplication and division are related and how we can use this fact to find out if huge numbers will be exactly divisible by smaller numbers? In this session we will begin by enjoying 'Multiplying Menace' by Pam Calvert. Peter is being held captive by Rumplestilskin and his multiplying magic stick as payback for the time when Rumple spun the queen's straw into gold. Help Peter escape by joining him in solving some exciting mathematical challenges and games, utilising the processes between the relationship of multiplication and division. You'll discover 'Runaway Maths', 'Game 24' and perform some 'divisibility' experiments. You'll also test your Origami skills by making a 'Go There Square'. This will help you to select which challenges you will work on to help Peter defeat Rumplestilskin. Are you ready to go?

Spaghetti and Meatballs

In our second session Stella and Sam introduce us to 'Spaghetti and Meatballs for All' by Marilyn Burns. Mrs Comfort is so excited about the family reunion dinner. She has organised the seating plan for her family, which unfortunately does not work. See if you can discover the fault in Mrs Comfort's reasoning. At the same time you'll explore a number of interesting area and perimeter investigations using diagrams or models to depict the different solutions. During the second half of the session you will work in groups to solve diverse measurement problems. Each member of the group will receive a clue, which will contain an essential piece of information to the solution of the problem. To enhance your thinking skills you will design your own clues for another group to solve.

The Greedy Triangle

Have you ever wished that you could be someone else? In our third book 'The Greedy Triangle' by Marilyn Burns, the triangle becomes dissatisfied with his life and wishes that he could have one more side and one more angle. He goes to the shapeshifter who turns him into a quadrilateral. What are all the exciting new things the 'triangle turned quadrilateral' can do and will he be satisfied with his new life? You will explore the world of polygons and learn some exciting new names like 'dodecagon and icosagon'. You will play the exciting game of Sudoku using polygons instead of numbers and as usual you will have a choice from the 'Go There Square' as to which polygon challenge you will complete.

The Marvellous World of Fractions

Have you ever considered what the world would be like if there were no fractions? What would we not be able to say or do? Join us as we delve into the marvellous world of fractions. In 'Full House' by Dayle Ann Dodds, Miss Bloom who runs Strawberry Hill loves having visitors. She has a full house of visitors but in the middle of the night she realises that something is not right. She goes downstairs to find that her visitors are arguing about how they should divide her cake. A discussion occurs about how everybody should get an equal share. In this session you will discuss 'what the world would be like if there were no fractions' and whether 'fractions are more important than decimals'. This week we will explore the relationship between fractions and music and use our fractions to write a few lines of lyrics based on our journey. We will conclude our journey with Stella and Sam by producing an act, or writing a poem portraying the different mathematical concepts that we have learnt on this journey.

About the presenter: Sharon Leibowitz is an experienced educator with enthusiasm for ensuring that learning is creative, practical and enjoyable. She has specialised in the area of gifted education for over 20 years and has a passion for the development of Mathematical and Philosophical skills across the primary years. She particularly enjoys the task of designing mathematical curriculum using the 'thinking treasure' of children's literature, art and science.

Requirements: Writing paper (an exercise book would be ideal); coloured pencils or textas; Also come along with a snack each week (no nuts please).