



MATHEMATICAL INVESTIGATIONS

100 INSPIRING TITLES

Encourage your students to capture the excitement and application of mathematics and win prizes in the Mathematical Investigations category in the Queensland Science Contest sponsored by QAMT.

Winning entries in this category are entered into the National Maths Talent Quest. Open for Prep to Year 12 students, find out more at <https://www.staq.qld.edu.au/competitions/queensland-science-contest/>

To help your students get started and to celebrate QAMT's 100th year, here are 100 titles from previous winners:

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| 24 Dice | How much money does it cost to own a bakery and what are the appropriate prices compared to the supermarket? | Show me the money |
| 2KW's gumboot maths | How much money would it cost to build and run a successful taco truck for one year? | Sinking into submarines |
| A day with Grandpa | How much sleep do I need? | Slime jump |
| A road trip around Australia | How much would it cost to live on the moon for one year? | Sports articles in the newspaper |
| All about apples | How wheel size affects the speed of the bike | Tall towers |
| Anika's inquiry into the most popular lunch order in Prep | I don't want to be late for school anymore! | The 4 little pigs |
| Bees maths | If a fidget spinner were a planet, how long would a year/month/day last, when compared to earth? | The algebra behind maths tricks |
| Can I be a sports star? | Investigating the colours in boxes of smarties | The average grade 5 and 6 shoe |
| Can we use mathematics to help us understand the size of the solar system? | Investigating the golden ratio | The block-playground edition |
| Car spaces | Is hot dog day worth it? | The butterfly effect |
| Catch it!!! A feasibility study for removing plastic waste from the world ocean | Jetski's canteen | The increase in the earth's temperature |
| Creating magic squares | Knot theory | The key to the perfect bottleflip |
| Disability education | Let's have a party | The numbers of Uluru |
| Do different parachutes affect the speed with which an object falls? | Lucky charms and unlucky theories | The Rapunzel braid |
| Does the body respond differently to sugar being eaten in different ways? | Lunch box maths | The show must go on! Can Prep PR save the circus? |
| Does your body affect your results in sport? | Main mode of transport to school | The value of bottle caps |
| Doggy doughnuts | Mathematical murder mystery – a wonderful combination of literature and mathematics | The very hungry caterpillar |
| Domino topple time | Maths in windmills | The walkathon |
| Exploring the number 9 | Missing teeth | Toad maths |
| Factors affecting running speed | Most popular after school activity | Toilet flush |
| Famous flying fox | Nerf dart analysis | Travelling to high school |
| Farm gate to plate | Nude food | Uniform combinations |
| Fibonacci numbers in nature | Olympic world records, can they be beaten? | Using measurement and coding to make a robot's path |
| Footsteps | Olympics-the hidden statistics | What are the effects on housing if the Australian population lived in Melbourne? |
| Fruit salad | Paper planes | What are the patterns in multiplication? |
| Guitar frequency | Pounding pulses | What fractals can be found in nature? |
| Having a winning chance | Raising a platypus for one year | What is the average AFL player? |
| How big is a dinosaur? | Rubbish is everywhere | What is the best D.I.Y homemade boat? |
| How can we celebrate 100 days of school? | Shapes, patterns and tessellation | What is the math in taking a perfect selfie? |
| How fast is Usain Bolt? | Sharp shooter goal kicking accuracy | What maths can we find from reading |
| How has the speed of the 100m sprint changed over 120 years? | | The Very Hungry Caterpillar? |
| How many books read in a week-children v adults? | | What will humans look like in 1,000 years? |
| How many mountains reach space? | | When an iceberg melts, how does it affect earth? |
| How many Rubik's cubes fit into the classroom? | | When the Preps went to the house of the bears |
| How many squares on a chessboard? | | Which petrol is more economical: 91, 95 or 98? |
| | | Who hurts themselves the most: first, second or third children? |