



Maths Talent Quest 2017

Student Information

The Maths Talent Quest is an open-ended mathematical investigation with your choice of topic.

- You should aim to choose an original and novel concept. Real world problems are often most interesting.
- Think about how you are going to gain information, collect data and analyse your results.
- You can work as an individual, a member of a group (maximum of six students) or as part of a class (maximum of 30 students).
- Your project must have a title and all references and assistance (including teachers and parents) must be acknowledged.
- You should aim to interest your audience. Remember primary and/or secondary teachers will be judging your investigation using the rubric.

What Type Of Project Can I Choose?

<u>PROJECTS CAN BE</u>	<u>ALL PROJECTS MUST INCLUDE</u>
An Investigation (All entries should be investigations)	An abstract (a brief description of what you did and what you achieved); mathematical aims; observations and results; discussion on relevance of results; conclusion; references, bibliography and acknowledgements.
Creative writing (essay, story, collections of poems or letters, script for a play)	Mathematical aims; a list of key mathematical ideas; an evaluation (how well did you achieve your aim?); references, bibliography and acknowledgements.



A model (static or working) that reinforces or demonstrates a mathematical principle	Notes outlining mathematical aims, rules, the process of the investigation and conclusions; references, bibliography and acknowledgements. Models must not exceed 10kg or be larger than 70cm all dimensions. No food items will be accepted.
A poster presenting information in a sequence with a clear indication of the mathematics involved	Notes outlining mathematical aims, rules, the process of the investigation and conclusions; references, bibliography and acknowledgements. Poster dimensions must be no larger than a standard A1 sheet (approximately 60cm x 85cm) and must be able to be rolled into a Post Pack Cylinder.
Media or technology such as: computer program, website, video, audio or multimedia presentation	Notes outlining mathematical aims, rules, the process of the investigation and conclusions; script and indexed commentary; operating instructions; references, bibliography and acknowledgements. Maximum running time is 15 minutes. Videos should be in DVD format. Computer programs must be submitted in Windows and Mac formats. Must not require any installation of software. Programs must be accompanied by a hard copy.

How Do I Get Started?

Brainstorm a list of topics that you would like to investigate. It is important that you choose a topic that interests you. You may like to investigate a problem that has affected you, your family, your school or on a global level. Topic could include:

- Investigating the shortest route to school
- How does the weather effect students transport choices to school?
- How have student transport choices to school differed over time?

Once a topic has been chosen, you should think of a big question or idea to investigate.

Get Planning:

What type of information or data will you require to complete your investigation? Make a list of all the types of data and information you will need. Create a timeline to ensure you will complete your investigation in time. Now is a great time to get a *critical friend*. A critical friend is someone who will give you feedback on your project, share ideas with you and ensure you stick to your goals. Your critical friend may be a teacher, parent or a fellow peer.



Start Investigating:

Set yourself some goals and smaller questions. Once you have collected enough data and information you can begin your investigation. You may find that your investigative journey changes along the way - this is fine. Make sure you reset your goals & timeline as needed. Your focus may also change, which can sometimes make a more interesting investigation.

Keeping Records:

It is very important that you keep records of your investigation and data. This is a great way to show that the work has been completed by yourself and provides the MTQ judges with an insight into your investigation. You can present all of your working and planning in a journal, attached in a folder or your work can be put into in your investigation. Some students find it helpful to keep a journal, however this is not compulsory.

Presenting Your Investigation:

It is very important that you keep in mind the rubric judging criteria whilst presenting your information. Make sure your aim, plan and conclusion is clear. Present your mathematical strategies, real world connections and terminology effectively. Ensure you have acknowledged any assistance and resources you have used. Be sure to present your work in a neat and legible manner, demonstrating you value your work.

How Are We Going To Judge Your Project?

Please make sure you consult the 2017 State Judging Rubric for information about the criteria.

You can find more information about the Maths Talent Quest at <https://www.mav.vic.edu.au/student-activities/maths-talent-quest.html>