AUSTRALIAN MATHS TRUST

Position title:	Lead Educator – Algorithmics and Programming
Reports to:	Chief Mathematician
Positions reporting to role:	
Position term:	0.8 to 1.0 FTE. 24-month contract, with likelihood of extension.
Travel required:	This role can be face to face in Canberra office or remote. Domestic and internation travel may be required, including attendance at committee meetings and overseas events such as the annual International Bebras Workshop and will be negotiated on a needs basis.
Effective date	5 January 2025

Position Purpose

The Lead Educator – Algorithmics and Programming is a senior subject matter expert providing expertise, leadership and advice on computer programming and algorithmic thinking for the Australian Maths Trust.

The role is responsible for developing the Trust's algorithmic pathway by working collaboratively with problems committees, authors and other key internal stakeholders to improve the Trust's offerings in algorithmic thinking and computer programming.

Principal Duties

- Providing direction to guide the growth and improvement of the Trust's algorithmic (informatics) competitions and programs
- Providing expertise and advice to Executive on issues in the Australian educational landscape relating to computer science, programming and algorithmic thinking
- Creating content for the open algorithmics pathway, developing high-quality problems for the Trust's open algorithmic and coding competitions and programs, including but not limited to, Bebras, Coding Challenge, Computational and Algorithmic Thinking (CAT) and CAT Coding
- Liaising with committees and authors to coordinate consistent algorithmic content across the pathway from open to Olympiad level competitions and programs, specifically to aligning content across Bebras, CAT, Coding Challenge and the Australin Informatics Olympiad (AIO)
- Providing expertise and operational support to the Competitions and Programs team on technical (Coding) aspects relating to the delivery of open programming competitions and

programs (e.g. uploading programming tasks and testing graders in competition platforms with coding samples)
- Leading process improvements to support consistency and quality of algorithmic content, including guidelines on competition design, programming conventions, pedagogy, styles and suitability for audience
- Attending algorithmics (informatics) committee meetings as required
- Supporting the development of Algorithmic capability within the Trust, including the recruitment and retention of committee members and volunteers
- Other duties as requested by the Chief Mathematician or the CEO.

Other Duties

- Act as the AMT's official representative in the Bebras community and attend the annual International Bebras Task Workshop in May
- Compile papers for the Bebras Australia Challenge:
    - Review tasks from UK and US Bebras Challenges and the broader pool of Bebras tasks for inclusion in the Australian Bebras Challenge
    - Consider factors including level of difficulty, suitability for year level and curriculum classification
    - Adapt tasks for delivery to Australian schools (localising language and cross-checking content)
    - Assign curriculum classification for all tasks (75 tasks across five divisions)
    - Coordinate the creation of 4-6 tasks for submission to the Bebras Community for inclusion in the official pools of tasks
    - Provide information on submitted tasks, including level of difficulty, suitability for year level, classification and content rationales
    - Review and moderate tasks submitted by other countries and responding to feedback on submitted tasks
- Provide support for developing and preparing programming tasks for the Coding Challenge, such as task selection, QA, and localisation of the Australian competition
- Support the effective development and delivery of programming tasks via the AMT's competition platform.

Required Skills

- Demonstrated understanding of pedagogy and experience in the teaching of K – 12 and digital technologies in the Australian educational system
- Demonstrated excellence in, and passion for, the teaching and advocacy of algorithmic problem-solving within the educational ecosystem
- Strong communication skills, including the ability to lead collaborative problem solving to align competing perspectives
- Capability to create algorithmic/computational tasks suitable for inclusion in the Bebras Challenge related programs

- Ability to write programming tasks at the level of the AMT's open programming competitions.

Preferred skills

- Capability to engage with programming tasks up to the Olympiad level.

Required Competencies

- Bachelor's degree in computer science, digital technologies or equivalent.

Application Guidelines

Please send the following documentation to hr@amt.edu.au by 11:59pm, Friday 31 October 2025:

• Cover Letter outlining your interest in the role

• Statement addressing the Selection Criteria

• Current resume

Applications that fail to address the above application guidelines may not be considered