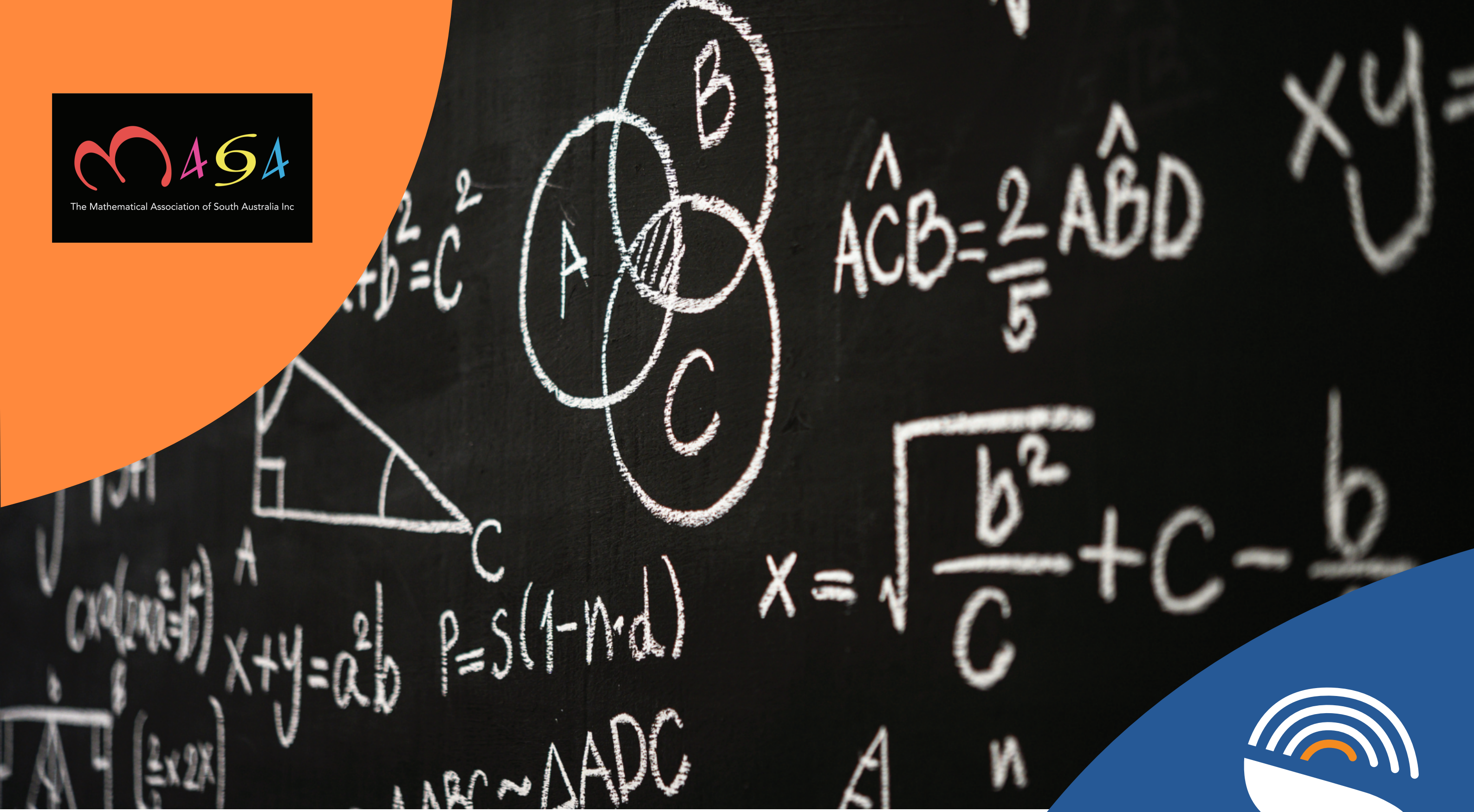

The Mathematical Association of South Australia Inc

SEATON HIGH SCHOOL

ENTREPRENEURIAL SPECIALIST SCHOOL

Mathematical Sciences 2027

Explore. Investigate. Solve. Shape the Future.

Have you ever marvelled at a bridge or skyscraper? Wondered how mathematics explains the forces that propel rockets, helps athletes break records or enables designers to create more efficient products?

This program is an integrated two-year SACE Package for Year 10 and 11 students. Bringing together Stage 1 Mathematical Methods (20 credits), Stage 1 Specialist Mathematics (10 credits) and Stage 1 Physics (10 credits), the program connects advanced learning with authentic problems, applied research and future pathways.

Students will co-design investigations inspired by their interests, exploring applications such as sports analytics, architectural design, engineering, motion and forces, product design, statistical analysis and mathematical modelling. They will work collaboratively to test ideas, interpret evidence and apply mathematics and physics to complex real-world challenges.

Through connections with universities and industry, students will discover how mathematical sciences are shaping innovation across space, engineering, architecture, defence, health and environmental research.

Students will also participate in the annual Mathematical Association of South Australia competition, working in teams to solve challenging problems involving statistics, geometry, logic and calculus.

Industry and Community Connections

Students will have opportunities to engage with organisations and experts including:

- Australian Space Agency
- Data to Decisions Cooperative Research Centre
- Local architecture and engineering firms
- Flinders University mathematics researchers and educators
- The Mathematical Association of South Australia

Key Learning

- Mathematical reasoning and problem-solving
- Statistical analysis and mathematical modelling
- Practical investigation and scientific inquiry
- Creativity, communication and collaboration
- Applying knowledge in real-world and abstract contexts
- Connecting mathematics and physics with future study and careers

Program Coordinator: Kaitlyn Fitzgerald | Phone: 8445 2944 | Email: kaitlyn.archer292@schools.sa.edu.au