



CNA
Catholic Network
Australia



STEM MAD



**National Student
SHOWCASE**

Tuesday 19 November 2024 · Brisbane Convention and Exhibition Centre

STEM MAD National: Project Criteria – Primary

The following criteria have been developed to guide teachers and students in the development of their projects.

Design process

- Demonstrates a clear process towards designing a solution that *Makes A Difference* as guided by the following design thinking stages:
1. Empathise 2. Define 3. Ideate 4. Prototype 5. Test 6. Share & Explain
- Documents research, reflections, and evaluations of each stages of the design process

Innovation

- Identifies a real-world problem
- Demonstrates an innovative approach to problem solving
- Develops interesting, engaging, and imaginative solutions to the problem

STEM Disciplinary understandings & skills

- Demonstrates understanding of the scientific and mathematical concepts that informed the design of the solution and/or product and where these apply in the project
- Integrates skills from across the STEM disciplines and general capabilities as outlined by the relevant sections of the curriculum
- Uses engineering principles in the process of designing a solution to the problem

Making A Difference (MAD)

- Identifies the way the solution and/or product intends to *Make A Difference* by addressing one of more of the following themes;
1. Service 2. Environment 3. Product
through the lens of Catholic stewardship, solidarity, common good, citizenship, humanity, and wellbeing.

Communication

- Creates a pitch video that is a maximum of 2.5 minutes in length
- Demonstrates capacities to articulate their learning through the journey from conception to showcase including the design process
- Uses visual communication principles to optimise engagement, including creative use of the screen space in the pitch video
- Selects and uses appropriate digital tools to create the pitch video
- Pitch video includes appropriate visuals and has high sound quality
- Presentation of key elements of the project, including demonstration of the prototype (product/solution)

Teamwork

- Each team has up to 4 members
- All team members contribute to the project and pitch video