

Design for inclusion and accessibility

Best Practice Engagement: Recommendation 3



The review on Best Practice Principles for Community Science Engagement Programs identified seven recommendations for effective and impactful community science programs.

The third recommendation focuses on **embedding inclusivity and accessibility** throughout the design and delivery of community science engagement programs. This ensures science engagement is relevant, welcoming and accessible to diverse audiences.

Effective programs recognise and respond to the diverse needs, values and lived experiences of participants, helping to broaden scientific literacy and participation in STEM. Applying culturally responsive approaches and understanding participants' science knowledge can improve program relevance and impact.



Image: The QUT-WSU Civil Cultural Expedition brought Aboriginal and Torres Strait Islander engineering students together for conversations with Elders and industry professionals
Credit: Bachelor of Engineering student, Kiah Faiva, QUT



Image: Year 5 students designing and building solar-powered lights to improve accessibility for children living in energy poverty around the globe
Credit: Nathalie Ferquel, Griffith University

Co-designing programs with community members can strengthen inclusivity and ensure activities are meaningful and locally relevant for those communities.

Program teams should demonstrate a commitment to equity through inclusive practices, accessibility and cultural capability. Programs should also consider how they might influence participants by shaping:

- what people know about science
- how they think about science
- how they engage with science
- how they connect with people who influence their perceptions of science and STEM pathways.



Case study: National Indigenous Science Education Program

The National Indigenous Science Education Program (NISEP) is a strong example of how ***inclusivity and accessibility can be embedded*** into science engagement. Established through partnerships between Indigenous communities and Macquarie University, NISEP was developed in response to community aspirations to increase educational participation and opportunities for Aboriginal and Torres Strait Islander young people in STEM.



A key strength of the program is its community-led approach. NISEP works closely with Indigenous Elders, community members, schools and students to ensure activities are culturally relevant, accessible and responsive to local needs. Indigenous students are encouraged to take on leadership roles in science activities, helping to build confidence and empowerment, strengthen connections to education and create positive STEM role models within their communities.

NISEP demonstrates inclusive program design through valuing Indigenous knowledge, fostering meaningful partnerships and creating culturally safe learning environments.



The program highlights the importance of recognising and building on participants' existing strengths, knowledge and cultural identities.

Rather than taking a one-size-fits-all approach, it adapts to community contexts and priorities, creating more meaningful engagement experiences and helping participants see STEM as relevant to their lives, communities and future aspirations.

Images: Participants in a STEM activity, the Macquarie Science Experience (top right) and NISEP students learning how to become science leaders and role models (above left)

Credit: [National Indigenous Science Education Program](#)

For further detail about *Best Practice Principles for Community Science Engagement Programs*, read the full report, which includes case studies and other resources, at www.chiefscientist.qld.gov.au.