

2021/22 PROGRAMME

This year, Engineers Without Borders South Africa and Engineers Without Borders UK are pleased to be partnering with the Centre for Appropriate Technology (CfAT), Australia, to create the Engineering for People Design Challenge design brief. The brief considers the engineering challenges and opportunities found in Cape York, a vast remote peninsula located in Far North Queensland, largely owned and managed by its indigenous Traditional Owners

We have worked with our friends at Engineers Without Borders Australia to partner with CfAT, a not-for-profit organisation led by Indigenous people which was established in 1980 to research, design, develop and build capacity in appropriate technologies and deliver technical training to Indigenous peoples living in remote and off-grid communities. Today, it continues to connect people and country through technology to inspire better livelihoods.

Students will have the opportunity to learn about Aboriginal and Torres Strait Islander communities and their relationship to their land and sea 'country'. Aboriginal Australians are the proud custodians of the oldest known continuous living culture on the planet. Their heritage spans hundreds of indigenous First Nations, language groups and geographies each with its own unique mixture of cultures, customs and dialects.

By investigating the Challenge Areas, students are encouraged to consider the ongoing impacts of colonisation and Indigenous conservation efforts to maintain the intimately linked concepts of 'country and culture': To preserve ancient knowledge systems, prevent wildfires and protect biodiversity and unique ecosystems, whilst also noting the link between engineering design, 'appropriate technology' and people's ability to survive, thrive and flourish in remote landscapes.

CHALLENGE AREAS



Built environment which includes all human-made physical spaces where we live, take leisure and work.



Food security occurs when all people have access to sufficient, safe, and nutritious food that meets their requirements for an

active and healthy life in ways the planet can sustain into the future. In addition, Land Management practices are central to Indigenous culture and way of life.



Reliable access to **energy**, in particular electricity, often reduces the time people spend on everyday tasks.



It is vital to address and properly manage **waste** to prevent environmental damage, health risks and the development of unsightly and undesirable areas.



Water is an essential resource, and to lead healthy lives, people need a reliable supply of clean drinking water.



Sanitation involves the safe management, treatment and eventual safe end use or disposal of water that is contaminated and presents potential health problems.



Mobility and access to **transport** infrastructure allow people and goods to move around freely.



Whilst many people benefit hugely from modern **digital** advances in information communications, some of us have not had the same opportunities.

For more information, please visit the website: www.engineering-for-people.org

*All images are the intellectual and cultural property of Centre for Appropriate Technology and the Indigenous people they work with. Do not share or edit any images used in these resources outside of their primary function.