

**Climate Change Alley Learning Stations**

**M1: Lismore South Public School Marquee**

Our school is excited to be participating in the Climate Change Challenge and to join other local schools who are part of this program. We have put together some activities that let you explore some of the social and environmental effects of climate change:

* A demonstration of soil erosion
* Make your own book for your school about climate change
* Explore what happens to soil when it degrades from over-use of resources

**M2: Mullumbimby Public School Marquee**

Our year 5/6 classes have had a fantastic time working with the Climate Change and Me Curriculum this year. Our Marquee shows some of the work we did as part of the curriculum, and we have also developed some climate change activities for you to engage with:

* Jumbled Words Activity making sentences about climate change
* Our Sustainable Village Design
* Our Climate Change Poetry Book
* Our objects from home that speak to us about climate change

**M3: Bexhill Public School Marquee**

Students and teachers from Bexhill Public School have been active co-researchers in the Climate Change and Me project since 2014. Our year 5/6 classes have also worked with the Climate Change and Me Curriculum this year. Here are some of the activities we designed to engage our community with the issue of climate change:

* PowerPoints slides that express our responses to climate change
* A painting that we created together
* Making carry bags from recycled t-shirts

**M4: Alstonville High School Marquee**

Students and teachers from Alstonville High School have been active co-researchers in the Climate Change and Me project since 2014. Our year 7 science class has also been working with the Climate Change and Me curriculum this year. We’ve brought along a few activities to share with you for the Climate Change Challenge:

* Small Science experiments and demonstrations
* Poems and research regarding climate change

**M5: Climate Change and Me Marquee**

*Climate Change and Me* is a three-year project funded by the NSW Environmental Trust. The project has involved working with over 135 local children and young people as co-researchers investigating the awareness, attitudes and actions towards climate change across Northern NSW. The artworks, essays, videos, photographs, poems and fictional works created through this research were assembled into the Past Now Future touring exhibition in 2015, which was viewed by over 8,000 members of the local community. The interdisciplinary *Climate Change and Me* curriculum was also developed by a team of local young people, teachers and academic researchers. The curriculum is now being implemented in primary and secondary schools across the region, with plans to extend the research to schools across NSW, and eventually, the whole country. For the *Climate Change Challenge* we invite the wider community to become part of an ongoing network of local children, young people and adults who are addressing the challenges of climate change. Our learning station offers the following activities for you to engage with:

* Photo wax transfer tiles and The Changes edited book from the Past Now Future exhibitions
* ‘What’s Your Climate Change Avatar?’ iPad activity to find out where you stand on the issue
* Learn about the Climate Change and Me curriculum and how you might use it in your school
* Sign on for the Australian Climate Change Kids network

**S1: Kadina High School Station**

We are excited to be joining other schools for the Climate Change Challenge! Our year 8 class has recently completed a unit of work on sustainability. We designed ‘tiny houses’ using recycled materials to explore more sustainable possibilities for architecture and design. Our station offers the following activities for you to engage with:

* Showcase of ‘tiny house’ designs
* Discuss sustainable design principles and sketch out your own design for a tiny house

**S2: Alstonville Public School Station**

Students and teachers from Alstonville Public School have been active co-researchers in the Climate Change and Me project since 2014. Our year 5/6 class has put together the following activities for you to engage with today:

* Planting seedlings of native plants to take home with you.



**Zest Workshop Space**

**Queenie Bee performance by Summerland Christian College: 10:30-11:00 and 12:30-1:00**

Our school is very excited to offer our Queenie Bee performance for the Climate Change Challenge. It is a short drama featuring a couple of bees - 'Queenie' the overworked matriarch, and 'Darling Drone' her lazy husband. They decide to go on a date night to get Queenie out of the hive but to their dismay discover that all of the flowers in the flower garden have finished blooming for the season. Nectar is in short supply and the bee's date night ends with them back at the hive watching Netflix! The drama finishes with a short discussion about why bees are so important and how they have been affected by climate change.

**Greenhouse Gas Analysis Workshop by Dr. Douglas Tait, School of Environment, Science and Engineering 11:00 – 11:30**

I am actively involved with researching the effects of climate change within different coastal environments within the Centre for Coastal Biogeochemistry Research at SCU. My current research interests include atmospheric chemistry, submarine groundwater discharge, nutrient characterisation and mitigation on tropical islands and nutrient and carbon dynamics in mangrove systems.

For the Climate Change Challenge I have prepared a short slide show on how we use greenhouse gas analysers in the field, and have also brought an analyser down for people to see and interact with.

**Citizen Science Apps with Dr. Vicki Martin, School of Education 11:30 – 12:00 and 1:00 – 1:30**

My research explores ways in which science (especially environmental science) is communicated with the public. These days there are lots of exciting opportunities for people to interact with scientists, learn more, and contribute to real scientific research through ‘citizen science’ projects. All over Australia, and the globe, people like you are using their smartphones and other digital technologies to contribute to science. By recording observations (such as a sighting of an animal), or helping to process images on websites and mobile apps, people are helping us all learn more about the environment and the changes going on within it. Citizen scientists have even discovered new species! There are lots of other ways you can get involved in scientific research, too.

This workshop will explore the use of mobile applications for collecting scientific data. Depending on the weather, we’ll be taking photos of insects, birds and other animals on campus. We’ll also take a look at WildlifeSpotter, where you can help scientists online by spotting wildlife in photos taken by automatic cameras in the wild.



**Education Stations**

**The Solar Sunflower, Dr. Barry Hill, School of Arts and Social Sciences**

My research specialises in the fields of popular music culture and performance practice, audio technology and musicology. One of my recent projects has involved building Australia's largest solar-powered audiovisual production system, nicknamed the Sunflower. The Sunflower has been designed by SCU visual arts and audio technicians and students to look like a giant flower. The Sunflower has a state of the art energy generation storage and management system that can provide enough power to run a festival stage entirely from solar energy.

For the Climate Change Challenge people will be able to see the Sunflower in action, and also explore different ways of using the Sunflower for public artworks, festivals and community events.

**The Sustainability Energy Trailer, Tamlin Mackenzie, Dorroughby Environmental Education Centre**

Dorroughby Environmental Education Centre is a NSW Department of Education and Communities facility located 20 minutes NE of Lismore. Experienced teachers provide sustainability, cultural and environmental programs for students K-12 at the centre, within schools and at a variety of other sites e.g rainforests, wetlands, and coasts.

For the Climate Change Challenge we have brought our new Sustainability Energy trailer, which is packed full of hands-on alternative energy and power saving devices such as solar panels, solar cookers and wind turbines - plus extra fun features like solar powered remote control cars and a bike that demonstrates pedal power!

**The Climate Change Youth Activism Station, Maddy Braddon, SCU environmental science student**

I was head of the Climate Change Action Committee at Lismore High School 5-6 years ago, and have been involved with different environmental groups for many years. This station will let you explore different ways to combat climate change in your own lives through school and community volunteering. You’ll also find out how to join groups such as the Australian Youth Climate Coalition and SEED, which is Australia’s first Indigenous youth­led climate network.

Join in on the fun and action with Maddy as you find out what you can do as a young person to make a difference for our climate!

**The Biome Concern Ballot, Mitchell Kirby, PhD student in environmental science at SCU**

My research investigates river health in the Richmond Catchment area, and has a strong focus on the inherent relationship between communities and the natural systems they inhabit. The goal of my research is to contribute to sustainable development by assisting decision processes to better consider the true value of natural systems and the societal benefits they provide.

For the Climate Change Challenge I’ve created the Biome Concern Ballot, which asks participants to place notes or tokens of concern onto images that are labelled to represent the six biomes (forest, ocean, freshwater, grassland, desert, tundra).



**Climate Change Challenge FilmFest**

As part of the Climate Change and Me research in 2014-2015, local children and young people conducted video interviews of other local kids and also members of the wider community. Some co-researchers also created short artistic films that expressed their ideas and feelings towards climate change. These films were analysed, curated and edited into a series of three interactive video works which were exhibited as part of the Past Now Future exhibition. Filmfest audiences will have the opportunity to explore the community’s awareness, attitudes and actions towards climate change through these hyperlinked video works. The FilmFest also features an interplanetary Climate Change film by Mullumbimby PS, along with the first screening of an environmental audio-visual work by Amy Peluchetti.

Activities include:

* Film selection using hyperlinked video features
* Group discussion on key questions related to climate change, such as:
  + How do you think local children and young people are responding to climate change?
  + What questions would you want to ask your community about climate change?
  + Which videos do you think are the most effective in bringing awareness to the issue, and why?
  + What kind of videos would you create to bring awareness to the issue of climate change?



**PhotoVoice Exhibition Space**

**PhotoVoice Challenge Exhibition**

‘PhotoVoice’ is a social research method which combines imagery and words to investigate people’s values, practices and understandings in relation to different environments. Children and young people who participated as co-researchers in the Climate Change and Me project took thousands of photographs, which they also analysed, curated and interpreted using the PhotoVoice method for the Past Now Future exhibition (2015). This activity also became a significant part of the Climate Change and Curriculum, with schools across the region adopting this method to investigate the impacts of climate change on students’ lives.

For the Photovoice Challenge, students were invited to submit a photograph that speaks to them about climate change. They were also invited to provide up to twenty five words of text. Three winning entries for the PhotoVoice Challenge have been selected based on the quality and impact of the image in conjunction with the text.

Activities for the PhotoVoice Challenge include:

* Pick your favourite PhotoVoice entry and write why it speaks to you about climate change.
* Discuss the different PhotoVoice entries in small groups. What common themes do you notice? What do you think kids from this region are saying about climate change?

**‘Old Growth’ video artwork by Dr. Grayson Cooke, School of Arts and Social Sciences**

'Old Growth' is a work of environmental critique and material enquiry. It consists of three video works, each of which explores different effects of resource extraction or anthropogenic climate change. Each work consists of time-lapse photography of film media being chemically degraded.

'Frack' explores "virtual fracking" - it uses chemicals used in hydraulic fracturing to dissolve photographs of sedimentary rock. 'Deforest' uses sulphuric acid (which burns to the touch) to melt photographs of old growth rainforest. 'Bleach' uses a range of bleaching agents to dissolve photographs of the Great Barrier Reef. The ruination of the image and its relation to the environment lies at the core of this project.

Activities include:

* As you are watching the ‘Old Growth’ video artwork, write down any words that pop into your head in different places on your sheet of paper. Now draw shapes around your words and connect the shapes with lines. Place your sheet of paper with the others to create a map of different responses to this artwork.
* Form small groups and discuss how the artwork was made using chemicals to destroy photography. What is the relationship between destroying the photographs and destroying different environments? What does the artwork say about climate change? Now share your ideas with the whole group.

**‘Ways and Means’, environmental art installation by Michele Bevis, SCU visual arts student**

Michele Bevis uses intricate techniques and recycled materials to draw attention to the human impact upon the planet. Two of Michele’s works are exhibited for the Climate Change Challenge exhibition:

*‘In Our Hands’,* recycled plastic and aluminium shroud

*‘Stop carrying Out Your Intentions and Watch for my Signals: I am in distress’,* recycled plastic and aluminium net

Activities include:

* Spend some time looking at each of Michele’s artworks individually. Write down what you notice about these works. Now form groups of two and discuss:
  + How do you think these works were made?
  + What do these works they say to you about climate change?
  + What kind of artwork would you make together using recycled materials? Draw some example designs of something you could make as a team.



**Eco-Poetry Slam**

**Eco-poetry workshop with Katinka Smit and Stevi-Lee Alver, SCU creative writing students**

**10:30-11:15 and 11:15- 12:00**

We are creative writers who draw on the natural environment as the context and source of inspiration for our work. In this workshop we will write poetry together in a way that reflects the way an ecosystem might work, with everyone contributing/belonging to the whole yet having a very individual place within it. We will explore examples of eco-poetry by Bea Ballangary such as ‘Rivergum’ and ‘Listen Through the Soles of Your Feet’. We will then create one group poem and one or more individual poems, using cut-up strategies, brainstorming, word association, feeling association, observation and memory.

**Eco-Poetry Reading with Katinka Smit and Stevi-Lee Alver, SCU creative writing students**

**12:30-1:30 drop-in session**

In this session we will share our environmental writing and eco-poetry with each other, including poems created in the morning workshops, poems by Climate Change and Me co-researchers, and our own poems and environmental writing. We will have some discussion about creative writing as a response to climate change, and consider the unique ways that poems can explore the relationships between humans and the earth.