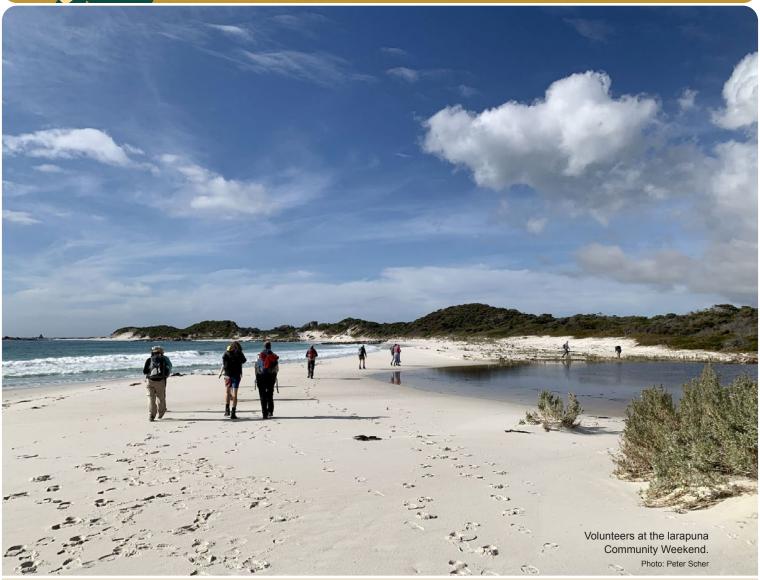






# Pational science week





Inspiring ideas for National Science Week

SMALL COMMUNITY ORGANISATION ACTIVITIES

# A NATIONAL WEEK OF SCIENCE

National Science Week is Australia's annual celebration of science and technology. Each August we celebrate and acknowledge the contributions of Australian scientists to the world of knowledge. National Science Week aims to encourage a wider interest in science pursuits and inspire people to be fascinated by the world. National Science Week is supported by the Australian Government in a variety of ways, including through the \$500,000 National Science Week Grants Program. Other partners include CSIRO, the ABC and the Australian Science Teachers Association (ASTA).

> This pack provides small community organisations with ideas for National Science Week events

#### **CORNUCOPIA OF EVENTS**

Nearly 2 million people participate in around 2,000 events across the country each year. Events are held by universities and research institutions, museums and science centres, libraries, community groups and schools. National Science Week demonstrates the practical application of science and technology in our everyday lives, and provides resources and venues for science activities.

This pack aims to encourage small community organisations to participate in National Science Week by providing inspiration, ideas and suggestions on how to be involved. Many small community organisations already present excellent STEM content every day. We hope this pack provides further inspiration to highlight science through specific events.

Organisations that hold National Science Week events play an important role in the community, providing educational resources to Australians and helping them engage with science. Many community organisations can play a role as leaders and spokespeople to increase community scientific literacy and encourage greater involvement in science.

The following pages include a list of event ideas, simple activities, and stories of science-related endeavours run by small community organisations in past National Science Weeks, as well as helpful tips and more information.



## TOP TIPS FOR SMALL COMMUNITY ORGANISATIONS

Register your event on the National Science Week website to join the celebrations (be sure to register even if your event isn't for the public – just mark it as "private") www.scienceweek.net.au/login

Give yourself plenty of time to plan and advertise your event: August comes around quickly! Aim to get local community involvement in the planning process if possible.

Collaborate with other local businesses, schools, and community organisations to enhance your event's reach and impact.

Check other local community organisation's websites to see what they're up to.

Check out past National Science Week event holder guides for more inspiring ideas. **READ MORE** >

Contact Inspiring Australia in your state or territory to find a local or regional science hub and tap into local science. **READ MORE** >

Explore the galaxy of possibilities of what is possible at home in the National Science Week DIY Science section. **READ MORE** >

Spotlight local scientists in community magazines and newspapers.

Host a free science film night for the community showcasing science-based cinema films. **READ MORE >** 

Check out Questacon's hands-on STEM activities. **READ MORE >** 

Use the Children's Discovery Centre resources, such as their Little Bang Book of Discovery's simple experiments to do at home (or at work) using everyday items. **READ MORE** >

Visit the CSIRO Education webpage. READ MORE >

Use CSIRO's Double Helix magazine. READ MORE >

Aim for waste-free events using recycled or reusable materials.

Check the National Science Week website and register for newsletter updates about grants and other opportunities. **READ MORE >** 

#### **INSPIRING IDEAS**



If you're running any event in August, give it some flair with a science theme.

Contact your local tertiary institution, CSIRO, or other science agencies to ask a STEM expert to give a presentation linked to your community organisation.

If you are a community organisation that charges entrance fees, consider offering a free talk, film screening or special limited opening during National Science Week. This will engage new members of the community with your organisation, illustrate the real-world application of science, and encourage more connected relationships with customers.

Organise a community dress-up parade where people can dress up as something or someone related to science (such as a favourite scientist, animal or chemical). Present prizes for the most interesting dress-up.

Organise a nature walk in a local park. Involve a guide who can lead the walk and teach participants about the local ecosystems and biodiversity.

Organise a local First Nations elder to talk about the area's Indigenous history, ecosystems and species.

Host a science talk, panel discussion or debate at your organisation. Choose a subject that is of interest to your organisation and community. You could explore how scientists are working to solve challenges facing your region or highlight how science is important to your organisation.

Highlight breaking science news linked to your community using the Australian Science Media Centre's resources to get the facts and promote informed discussions.

**READ MORE >** 

Some of these ideas have been used in the past (www.scienceweek.net.au/get-involved/hold-an-event)

and are described in more detail in the case studies on the following pages. We hope they foster curiosity and inspire your ideas.



Learning to make a kodj (axe) using Traditional methods | Photo: Helen Saratsis

# Connecting to cultural identity through First Nations science

The Victoria Park Community
Centre in Perth has been building
connections with First Nations
communities for several years,
including running Noongar language
lessons. In 2023, the centre expanded
on this by running 3 Noongar First
Nations science education events
during National Science Week.

Bess Chetkovich, Community
Development Coordinator, said the
events were a collaboration between
the centre and experienced First
Nations' facilitators Dylan Collard (of
Kalyakoorl), Dylan Shillito and Jayden
Boundry (both of Ngalak Nidja).

"As a community centre, we always seek to collaborate rather than rely on in-house expertise," Bess said. "Jayden, Dylan and Dylan were fantastic, always bringing their deep cultural knowledge and expertise."

The 3 events had a different focus. The teaching included the 6 Noongar seasons and how to use Traditional techniques to create fire and smelt a kodj (axe).

"The participants also learned about the physics of throwing a Miro (Traditional spear). But we used tennis ball launchers aimed at yonga (kangaroo) targets in the park to demonstrate the theory, rather than using real spears!" Bess said.

The events were mainly attended by primary-aged children and their parents from Indigenous and non-Indigenous families. However, some local teachers came to increase their knowledge to better implement First Nations science in their classrooms.

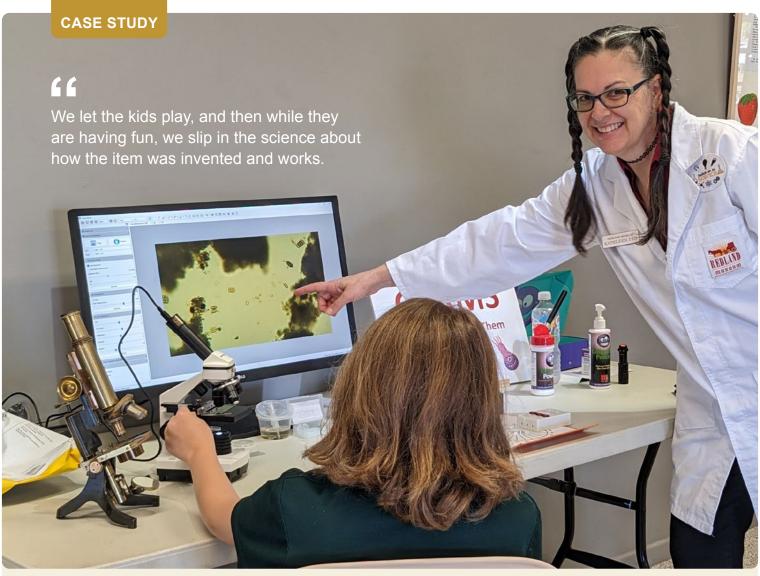
Bess said it was beautiful watching the children working together and forming friendships throughout the activities.



Practising Traditional fire-starting techniques
Photo: Helen Saratsis

"I remember this one moment where the kids were so focused on getting their kodj just right that they were completely immersed in the activity. You could see they really enjoyed it."

"Events like these are hugely empowering for cultural identity, particularly for Indigenous children," Bess said. "The facilitators taught Noongar language throughout all the events, and it was a really encouraging space for educating and creating a positive connection to culture."



Kathleen Teh, Redland Museum volunteer, explores microbes with a National Science Week participant | Photo: Ross Bower (OAM)

## Marvellous museums

At the community-run Redland Museum in Queensland, the premise 'look, don't touch' doesn't apply. More than 50 years old, this museum has long prided itself on showcasing engaging and interactive exhibits.

Former president of the museum committee, Ross Bower OAM, said that at Redland Museum, they recognise that people, especially children, learn by touching.

For the past 3 years, the Redland Museum has held a special museum event during National Science Week. Volunteers exhibit over 30 working vintage objects, and a science demonstrator runs a show.

"We have many pieces of old equipment that still work, including old-fashioned phones, cameras, movie projectors, steam engines, and a working blacksmith's shop," Ross said.

"We let the kids play, and then while they are having fun, we slip in the science about how the item was invented and works. Vintage equipment is ideal for demonstrating science because it is simple and easy to understand."

Ross said everyone who attended loved it and had a "roaring time".

"There are always a lot of children with their parents or grandparents, a spattering of older high school students and even some tourists." Activities range from learning about the chemistry of film cameras to understanding what sound is and how it travels. Ross said one of his standout activities was showing zooplankton under a microscope to young children. "When they see the little creatures, they just get so excited!" he said.

But it's not just the visitors who enjoy the events. Ross said the museum volunteers get just as much out of them.

"Redland Museum is a social support hub for the whole community. Everyone is welcome at the museum as a volunteer," he said. "We call our volunteers 'super visitors' because they just keep coming back!"

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## Teaching terrific terrariums

What better way to grow an appreciation of our natural ecosystems than by helping children create their own mini ecosystem?

In 2023, Melton City Council in Victoria ran their first National Science Week event, at Fraser Rise Children's & Community Centre. The event taught children about the interconnectedness of living organisms by creating terrariums.

Council staff said the event was hugely popular.

There were 15 places available for children between the ages of 8 and 12 (helped by their

guardians), but there was interest from over 50 people to attend!

As part of the National Science Week event, a local plant workshop facilitator provided the equipment and ran the day. While explaining how to make the terrariums, the facilitator talked to the children about the importance of biodiversity and the effects of climate change on ecosystems.

Council staff said the children loved the event and came away with a real sense of achievement, having made their own mini-ecosystem. They said the kids asked many questions about how to care for their terrariums and were genuinely excited by the topic.



Children learn how ecosystems work by making their own terrarium

Photo: Melton City Council

## Community caring for the larapuna coast

Getting out into the fresh air together to learn about and care for nature is what the larapuna Community Weekend is about.

The weekend is run by the Friends of larapuna Coast, a branch of the volunteer-based community organisation, Wildcare Tasmania.

President of Wildcare Friends of larapuna Coast, Polly Buchhorn, said the annual event has been going since 2014 and involves about 100 volunteers walking Tasmania's north-east coastline, pulling sea spurge (an invasive beach weed), collecting rubbish and learning how to care for the land and sea.

"In 2023, we combined the event with National Science Week for the first time. This allowed us to make the annual event free again," Polly said.

"Over 4 days, we covered 50 kilometres of coastline between wukalina/Mt William National Park, Ansons Bay and The Gardens," he said. "Volunteers mapped 15 hectares of beach infested with sea spurge, removing 46,000 plants and 56 kilograms of marine debris."

Participants heard from experts about new sea spurge biocontrol trials and Defending the Hood, a regional hooded plover habitat conservation program.

Polly said the event is always popular, attracting people of all ages and different backgrounds from the local community and across Tasmania, and visitors from beyond Tasmania.

"People love spending long days walking in this remote and pristine coastline. Every year, new and old faces come together to share this special place and help look after it."



In 2023, we combined the event with National Science Week for the first time.



Volunteers pulling sea spurge during the 2023 event | Photo: Polly Buchhorn



An SACWA member, Robyn Flack, with her granddaughters and their LED creations | Photo: Linda Terrell

## Electric embroidery

The Country Women's Association (CWA) may be known for its cookbooks and crafts, but in Kent Town, the South Australian Country Women's Association (SACWA) teaches women how to make electrical circuits.

In National Science Week 2023, the SACWA Handicraft Committee taught 15 women, including grandmothers and granddaughters, how to add LED lights to their handicraft designs and embroidery.

Jan Kershaw, Coordinator of SACWA's promotion and publicity committee, said the participants could choose to make a Rudolph with a light-up nose, a Christmas tree ornament with a light-up star, or a light-up zodiac constellation.

Jan said the best part of the workshop was seeing people's faces when the LED lights were switched on. "When they realised they had made the light work, it was such a special moment."

"These women have always been doing science. After all, cooking is

chemistry," she said. "But this is a new type of science for them. Before the event, some didn't know what an LED light was or how it worked.

"Now that they understand how to get started and what materials they need, many have purchased their own kits to continue making the LED handicrafts at home."

Jan said they hope to receive more funding to run the event across more rural SACWA branches.

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These women have always been doing science. After all, cooking is chemistry.

### The science of koala calls

In 2023, the Border Ranges – Richmond Valley Landcare Network held a 'Science in the Pub' style event at the Kyogle Bowling Club.

The event for local adults sought to raise awareness and interest in participating in acoustic monitoring of koalas. Acoustic monitoring involves listening to koala's vocal calls.

Border Ranges – Richmond Valley Landcare Network Coordinator, Emma Stone, said almost 50 landholders from across about 3,500 square kilometres attended, with some travelling over 80 kilometres to be there.

"This event was the first in the Kyogle Koala Festival run by the Landcare Network," she said. "Our presenters explained the value of this monitoring technique, as koalas can be difficult to see in dense forests, and so we lack distribution data in many regions."

"Acoustic monitoring allows us to fill in data gaps, better understand koala population distributions, and better direct our on-ground conservation actions to align with need." "National Science Week coincides with the onset of the vocal season for the koalas. We monitor during spring, when they are most acoustically active."

Emma said the presenters were experienced and humorous and brought conservation science to life with a lot of laughter.

She also said it was wonderful to see locals realise what an impact they can have through citizen science.

"The participants said they felt a real sense of opportunity given how advanced and easy-to-use this technology has become."

The August introduction event was followed by further training days, and the successful volunteers monitored koalas throughout the next 3 months.

"We aim to repeat the acoustic monitoring program next spring in different areas that still have data gaps."



Wildlife acoustic monitoring device demonstration | Photo: Emma Stone



Attendees at the 2023 National Science Week event | Photo: Emma Stone

#### **RESOURCES**

There are resources available on the National Science Week website (www.scienceweek.net.au), including:

- instructions on how to run an event.
- logos and characters to add to fliers, posters and advertisements.
- a free workplace science quiz and activity instructions (Brain Break).
- events and other activities planned for National Science Week.
- information on grants that are available annually; large national grants (up to \$20 000, open around October for the following year) and smaller rounds of grants from states and territories (various, open around February to May, depending on the jurisdiction).

Contact your local Inspiring Australia manager or National Science Week coordinating committee – they can provide advice on becoming involved in science activities, find speakers and connect you with science experts, let you know about funding to seed local activities, and alert you to local opportunities and activities you can join.

For a list of contacts in your state or territory see:

www.scienceweek.net.au/contacts

Register your events on the National Science Week website at www.scienceweek.net.au/login

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