



An Australian Government Initiative



# national science week



Photo: National Science Week



Inspiring ideas  
for National  
Science Week

**BUSINESS  
& INDUSTRY**  
ACTIVITIES

## A NATIONAL WEEK OF SCIENCE

National Science Week is Australia's annual celebration of science and technology, running each year in August. We've put together this brochure of science-inspired ideas to help companies, industries and businesses plan an exciting week – or day – of activities.

This celebration of science is an opportunity to acknowledge the contributions of Australian scientists to the world of knowledge. It also aims to encourage a wider interest in science pursuits, and to encourage young 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).



## CORNUCOPIA OF EVENTS

Over one million people participate in more than 1000 events across the country. Each year these events attract a wide audience from children to adults, and science amateurs to professionals.

Events are held by universities, schools, research institutions, museums, science centres, libraries – and various industries and businesses. Industry plays an important role in the community, with the potential to inspire young people about science careers, demonstrate the practical application of science and technology in our everyday lives, and provide resources and venues for science activities. Many Australian industries can play a role as community leaders and spokespeople to not only increase community scientific literacy but also encourage greater involvement with science.

This pack aims to encourage industries, organisations and local businesses to become involved in National Science Week 2021 – including those that haven't participated previously, as well as those who are repeating their involvement.

The following pages include stories of how a variety of industries have supported and engaged with science-related endeavours in previous National Science Weeks, a list of event ideas, helpful tips and more information. We hope this gives further inspiration and encouragement to either stay involved or get involved.

*“Industry plays an important role in the community, inspiring young people and demonstrating the practical application of science and technology in our everyday lives”*

## INSPIRING IDEAS

- Profile staff members or sections of the industry that work in science, via social media. This raises awareness of the scientific credibility and fascination of your work.



- Run a workshop or interactive display explaining some of the science used in your industry, or illustrating a fun scientific concept (e.g. <https://westernsydneysciencehub.wordpress.com/2016/08/19/the-inner-worlds-of-fruit-and-veggies-red-blue-and-green/>).
- Show the younger generation that you are the employer of tomorrow, by running activities that allow them to see the science impact that your industry can have now and in future.
- If you're running any kind of event in August, give it a bit of flair with a science theme.

- Promote your products (e.g. books, tools, science kits) that are science-based and can inspire younger minds.
- Contact your local tertiary institution, CSIRO, or museum to ask for a scientist, engineer or other expert to give a presentation linked to your business, suggest ideas, or help develop partnerships.
- If you are a local business or an industry leader arrange a public talk about how important science is to your field. This engages the public with your work, illustrates the real-world application of science, and encourages more connected relationships with clients.
- Host a science talk, panel discussion, or debate. Focus on a subject of most interest to your business and the community, discuss how science can address the problems facing your region, or highlight how science helps your Board or leadership team make decisions about influencing the business.
- Host a staff Brain Break using our kit, incorporate a morning tea, run quizzes or try out the hands-on activity ideas (<https://www.scienceweek.net.au/brainbreak>).
- Organise an educational program at your business using free videos, articles, resources and tools from The Royal Institution of Australia (<https://education.australiascience.tv>).
- If your organisation includes childcare or programs for young people, book a Museum in a Box, with real museum specimens, casts, artefacts, dioramas, images, DVDs, CDs, books and resources from the Australian Museum (<https://australianmuseum.net.au/learn/teachers/museum-box>).
- Highlight breaking news linked to your industry's area of science by using the Australian Science Media Centre's resources to get the facts and promote informed discussion (<http://www.smc.org.au>).
- Hold a speed-meet of STEM professionals from local organisations, businesses, universities and professional associations.

Some of these ideas have been successfully run in the past, and are described in more detail in the case studies on the following pages. We hope they will foster curiosity and inspire your own ideas.



Photos: National Science Week

**There are resources available on the National Science Week website (<https://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; national large 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 jurisdiction).

Contact your local Inspiring Australia manager or National Science Week coordinating committee – they can provide assistance such as 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 about local opportunities and activities you can join.

See <https://www.industry.gov.au/funding-and-incentives/inspiring-australia-science-engagement-in-australia> and <https://www.scienceweek.net.au/contacts> for a list of contacts in your state or territory.

## REGISTRATION

Register your events on the National Science Week website at <https://www.scienceweek.net.au/my-account/my-events>



## SIGN ON TO SCIENCE

In 2019 Dymocks Adelaide had a booth at the Adelaide Convention Centre, dedicated to selling signed copies of Dr Karl Kruszelnicki's children's science books.

'Having a presence at *National Science Week at the Centre* made sense from a business perspective, but we did it also because science is an integral part of education that we feel very strongly about encouraging,' said Mandy Macky, owner of Adelaide's flagship Dymocks store. 'It was a really great family event. You could tell that the children were abuzz after coming out of Dr Karl's evening talk at the Convention Centre and we continued the buzz by having the science books for sale.'

Dr Karl signed copies of his books for families at the Dymocks booth for nearly two hours.

'Karl was just great; he signed the books with funny pens, asked the children what they were interested in and wrote them funny messages,' Mandy said. 'We sold a couple of hundred books that night – wish we sold that many every day!'

Books tend to sell better around times such as Christmas. However, having an event such as National Science Week in August highlights the importance of science to children.

Mandy said her store carries science books that make information accessible for all ages, but in the children's selection especially, science books sell very well. 'Kids are always excited about dinosaurs, space, engines and chemical interactions,' she said. 'And if children read science books they grow up familiar with the names of scientists – like Ada Lovelace, who contributed to the first computer programming. Where would we be without her?'

## SOUNDS A LOT LIKE SCIENCE

Usually we just enjoy music with our ears. But in *Sounds like science*, the Victorian Youth Symphony Orchestra (VYSO) – with Prof Rob Morrison and Dr Deane Hutton from the *Curiosity Show* – helped audiences to enjoy it with their brains, too.

'We are an orchestra that does un-orchestra things,' said VYSO President Susan Eldridge. 'We're all about creating a new, immersive experience that connects our audience with music and something else, in this case science.'

The idea came about through Artistic Director and Conductor of VYSO, Ingrid Martin's childhood love of the *Curiosity Show*. Ingrid, Rob and Deane then planned a show together focussed on audience interaction.

Susan said the show would not have been possible without their 2019 National Science Week grant. 'We're a voluntary community orchestra, we just didn't have the funds.' She also said having one of these grants also meant they could keep ticket prices low, enabling access for the wider community.

At the show, audience members were given party blowers that they were encouraged to blow throughout the performance in time with the orchestra. Audience stamping contributed rhythm to Queen's *We Will Rock You*, and a Mexican wave demonstrated the movement of sound through a medium.



Photo: National Science Week

*"Karl was just great; he signed the books with funny pens, asked the children what they were interested in and wrote them funny messages"*

*Sounds like science* also explained the scientific concepts behind each of the instrument's family groups. For example, the percussion family was explained in relation to rhythm, the brass in relation to vibration, and the strings in relation to sound waves.

Through this National Science Week show, VYSO was given media exposure in a second-page article in *The Age*, live radio interviews with Rob, interviews via podcasts, and increased interest on social media.

Since the show, VYSO has received great community feedback via email and there are plans to sell the show recordings to broadcast. The show's three presenters, Ingrid, Rob and Deane are also considering selling the show on, for other orchestras to use.

Susan said the most special part of the show was seeing the audience appreciate learning about science, and the joy that they (and the orchestra members, many of whom have careers in the science and tech field) gained from seeing their childhood science heroes live.

*"We are an orchestra that does un-orchestra things"*



Photo: National Science Week

## A NATIONAL SCIENCE WEEK POWERHOUSE FOR OVER 10 YEARS

Since the desertSMART EcoFair's launch over 10 years ago, Power and Water in the Northern Territory has continually supported the Alice Springs event held during National Science Week.

Power and Water's community partnership coordinator, Jane Dellow, said the company recognised the importance of developing a relationship with the public. 'We invest in these partnerships because they are one of the most effective and authentic ways of enriching the future of the Northern Territory, our customers and our people,' she said.

The projects and initiatives that Power and Water promote are particularly aligned with science and creating a sustainable future.

'The EcoFair provides an opportunity to talk about key issues, which include water sustainability and renewable

energy,' Jane said. 'In more recent years, we've also had subject matter experts present during the event and be part of panel discussions.'

Jane also said the value in company participation was directly linked to community engagement.

'It's the questions we receive, the information we can provide and the great feedback from our audiences that drives us to participate,' she said. 'Engagement at the EcoFair helps us to identify key issues, and address any myths or information gaps. We can then apply this knowledge to better inform our communication and engagement, improving how the company moves forward.'

*"The EcoFair provides an opportunity to talk about key issues, which include water sustainability and renewable energy"*



Photo: Jane Dellow, Power and Water

## TAKING SCIENCE TO NEW HEIGHTS

The Royal Australian Air Force (RAAF) has merged physics and fun. With a pilot and crew, they have been taking their official RAAF balloon all across the country to celebrate a range of events, one of which is National Science Week.

Squadron Leader Sam Wright is one of the balloon's pilots and said his team usually went to rural areas of Australia that otherwise couldn't experience the Air Force.

'We bring the Air Force to them,' he said. 'We turn it into a tour, sometimes going away for a month.'

These balloon tours involve visiting schools where Sam and his crew talk to students.

*"Weather permitting, we take people up in the balloon, but otherwise we show them the basket and burner and can get into the nitty gritty of how it operates"*

'A big part of what we do is teaching them the how, what and why of the balloon's workings,' he said. 'The kids love learning the basic physics behind how it flies and how we steer it.'

Sam said he and his crew have activities planned for all weather conditions, too.

'Weather permitting, we take people up in the balloon, but otherwise we show them the basket and burner and can get into the nitty gritty of how it operates.'

Sam also said the balloon was one of the most cost-effective public relations activities run by the RAAF, and that it was well supported by the senior military staff.

'It's cheap and it has a high impact because it's so interactive. The whole experience feels more personal because my crew and I are teaching people face-to-face and sharing in their excitement as they enjoy the balloon.'

The RAAF also promotes National Science Week on social media, and is especially focussed on promoting women in science and technology careers.

## MAD SCIENTISTS AND CRAZY COCKTAILS

During August 2017, 2018 and 2019 the Hervey Bay Hog's Breath Café has celebrated National Science Week, with staff dressing up as mad scientists and making experiment-themed cocktails.

Owner Hayley Campbell said creating a fun and quirky in-store experience was part of the Hog's Breath culture. Her store includes one or two themes a month, which involve staff dressing up on a Saturday, and in August, these relate to science.

'We like to choose a theme that is both a national celebration and is trying to raise awareness for a cause,' she said.

Having these themes sparks conversations among staff and customers around a particular topic that influences the community.

'I'd never even heard of National Science Week until we started doing the theme a few years ago!' Hayley said.

Before each event, the store posts a Facebook update promoting the theme and encouraging customers to also come dressed up.

'We have a prize for the best dressed, and by making customers' experience fun and interactive we encourage them to come back,' Hayley said.

Raising awareness doesn't have to break the bank, either. Hayley said her store doesn't have an allocated budget for any of their themes and that they re-use decorations and costumes to be sustainable and efficient with funds.



Photo: Department of Defence. Royal Australian Air Force



## SHINING A LIGHT ON SCIENCE

In 2018 and 2019, TasNetworks participated in National Science Week via the Tasmanian-based event, the Festival of Bright Ideas (FOBI).

TasNetworks owns, operates and maintains Tasmania's electricity transmission and distribution network, delivering power to homes and businesses across the state.

Leader of community and stakeholder engagement, Allison Winter, said their continual involvement was a 'no brainer' after previous successes.

*"We do a number of events like National Science Week every year and we always have a huge demand for staff wanting to participate"*

'The FOBI provides a great platform to engage with what is most important to our customers,' she said. 'It is also an opportunity for us to personally share with them our future plans and challenges.'

TasNetworks' employees also benefit from the company's involvement in these customer-facing events. The experience provides job variety and develops a greater connection to their work.

Allison said the company values being part of the FOBI as the events empower the communities within which they operate. 'We do a number of events like National Science Week every year and we always have a huge demand for staff wanting to participate,' she said.

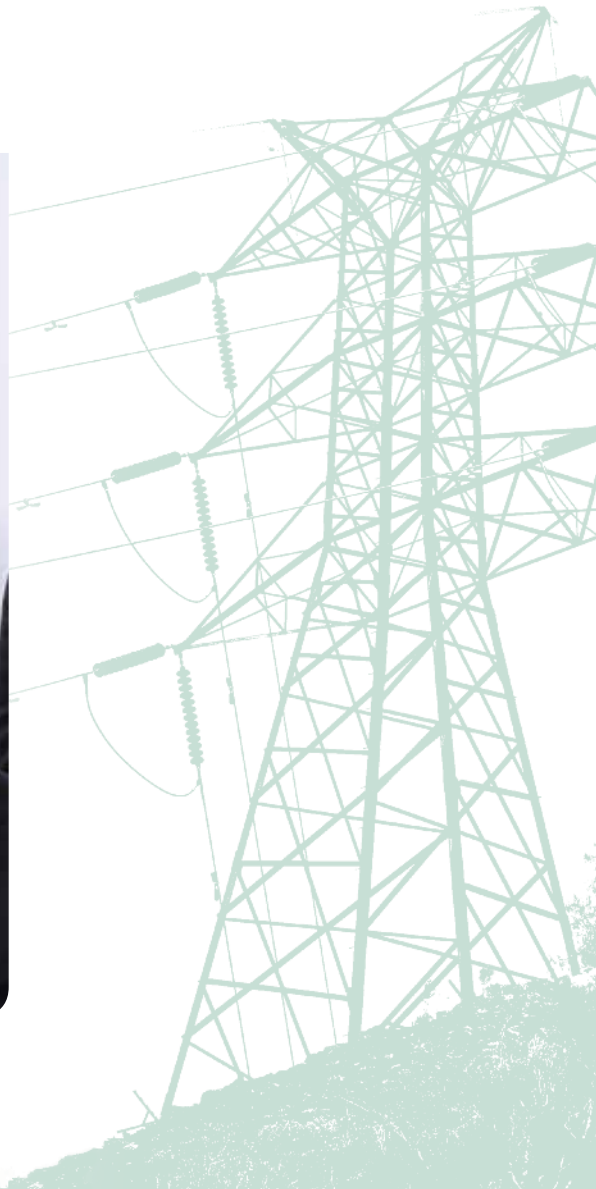
The FOBI also provides TasNetworks with an opportunity to engage with potential future employees.

Allison said TasNetworks has a well-established and successful Science, Technology, Engineering, Arts and Mathematics (STEAM) program in schools already. 'For us, it's all about educating kids. The FOBI enables us to directly engage with our target audience about STEAM learning and careers.'

The FOBI attracts between 8000 and 10 000 visitors annually, with 86 per cent of visitors reporting an increased interest in science afterwards, and 97 per cent reporting an increased awareness in the size, diversity and importance of Tasmanian science, technology, engineering, and mathematics.



Photo: TasNetworks



# TOP TIPS

## FOR BUSINESSES, ORGANISATIONS AND INDUSTRIES →

Give yourself plenty of time for planning and advertising: August comes around quickly.

Check other local industry websites to see what they're up to.

Contact Inspiring Australia in your state or territory, find a local regional science hub and tap into some local science: <https://www.industry.gov.au/funding-and-incentives/inspiring-australia-science-engagement-in-australia>

Check the National Science Week site: <https://www.scienceweek.net.au>.

Check out Questacon's list of hands-on STEM activities: <https://www.questacon.edu.au/outreach/programmes/questacon-smart-skills-initiative/workshops/resources/teacher-resource-hands-stem-activities>.

The National STEM School Education Resources Toolkit aims to help teachers, school leaders, industry partners and others deliver high quality STEM initiatives in schools: <https://www.education.gov.au/stem-education-resources-toolkit>

Use the resources of the Children's Discovery Centre, such as their Little Bang Book of Discovery's simple experiments to do at home (or at work) using everyday items: <https://childrensdiscovery.org.au>.

Explore a galaxy of possibilities for mobile STEM programs or online learning on the STARportal, the Office of the Chief Scientist's directory of STEM activities: <https://starportal.edu.au>.

Visit the CSIRO Education page: <https://www.csiro.au/en/Education/Programs>.

Use CSIRO's Double Helix magazine: <https://www.csiro.au/en/Education/Double-Helix>.

Be inspired by San Francisco's Exploratorium: <https://www.exploratorium.edu/explore/activities>.

Check out the Powerhouse Museum's lesson plans and worksheets: <https://maas.museum/ecologic-learning-resources>.



## Contact us

Follow National Science Week on Facebook (<https://www.facebook.com/nationalscienceweek>) and Twitter (@Aus\_ScienceWeek) and tell us what your business is doing by tagging #scienceweek.

For general information about National Science Week, contact the National Science Week Team at:

**Email** [scienceweek@questacon.edu.au](mailto:scienceweek@questacon.edu.au)

**Phone** 02 6270 2880

**Post** Questacon, PO Box 5322, Kingston ACT 2604

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