



Canberra Women
of Science and Art

ACTIVITY AND RESOURCES KIT

A National Science Week (ACT) event

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Canberra Women of Science and Art showcases Canberra women doing amazing things!

This booklet includes information about the Canberra Women of Science and Art event (part of National Science Week 2020), resources and fun activities (some provided by our speakers and supporting partners).

It is for kids (from baby and up), teenagers, families and anyone interested in curiosity and creativity going hand-in-hand.

Get creative, win prizes



What invention could an artist and a chemist come up with?

Canberra families and young people are encouraged to develop a creative interpretation responding to the stories of the Canberra women. Check out the webinars with our speakers (attend live or view the recordings).

You can create anything — art, poems, videos, animations, comedy and beyond! No limits (you'll just need to be able to send a copy/photo of it electronically.) You can even use the activities in this booklet as your submission! But keep in mind that the most **creative** entries will win prizes. Submissions close 8pm Saturday 23rd August. More details on the website.



What kind of buildings could be designed by an engineer, a sculptor and a gamer?

Find out everything you need to know about Canberra Women of Science and Art: <https://bit.ly/CWSciArtKitWeb>

WWW

Who are we talking about?



MADDIE DIAMOND

SOCIAL AND ENVIRONMENTAL ACTIVIST,
2020 ACT YOUNG AUSTRALIAN OF THE YEAR,
FOUNDER OF TRASH GATHER



MEGAN GILMOUR

SOCIAL INNOVATOR,
CO-FOUNDER AND CEO OF ROBOTS4GOOD,
MISSING SCHOOL AND ART OF AGENCY



JULIA LANDFORD

FOUNDING DIRECTOR OF NATUREART LAB,
WILDLIFE AND BOTANICAL ARTIST,
ENVIRONMENTAL EDUCATOR,
QUALIFIED TEACHER



MIKAELA JADE

INDIGENOUS ENTREPRENEUR,
FOUNDER AND CEO OF INDIGITAL



NICOLE GODWIN

AUTHOR,
SPEAKER AND FOUNDER
OF TUSK BOOKS

Different backgrounds and interests = different pathways to get where they are today. Some enjoyed high school, some went to university, some didn't. Some are trained in science, technology, engineering, and maths, and some are not.

But... they all have a common thread of being curious about people and the world around us. They are driven to make a difference and they use creativity and determination mixed with science and art to achieve it.



- Mikaela Jade



I have been a lifelong educator and love bringing art, science and environment together through our programs, reaching the very youngest — as future custodians of nature — through to adults of all ages.

– Julia Landford

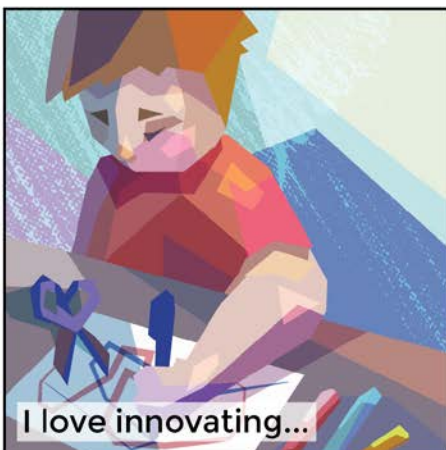


– Maddie Diamond



Creativity is central to my work. As I write about important issues, I have to do so in a creative way that isn't preachy or boring. I need to create characters that children love and a story that they want to come back to again and again.

– Nicole Godwin



– Megan Gilmour

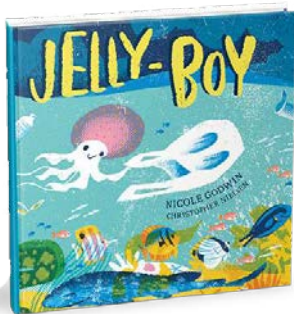
Jelly-Boy activity: How to make a compostable jellyfish



This craft activity is inspired by the picture book *Jelly-Boy* by Nicole Godwin about a jellyfish who falls in love with a plastic bag. Will their love endure or will she learn the dangerous truth?

You will need

1. Paper plate cut in half
2. Hole punch (single or double)
3. Textas or pencils
4. Strips of old cotton t-shirts or sheets (for tentacles). Cut 1–2cm wide and 10–15cm in length (NOTE: Use 100% cotton material to ensure it is fully compostable).



Instructions

Step 1: Punch holes. A) along the bottom of your paper plate. This is for the tentacles. B) One hole at the top.

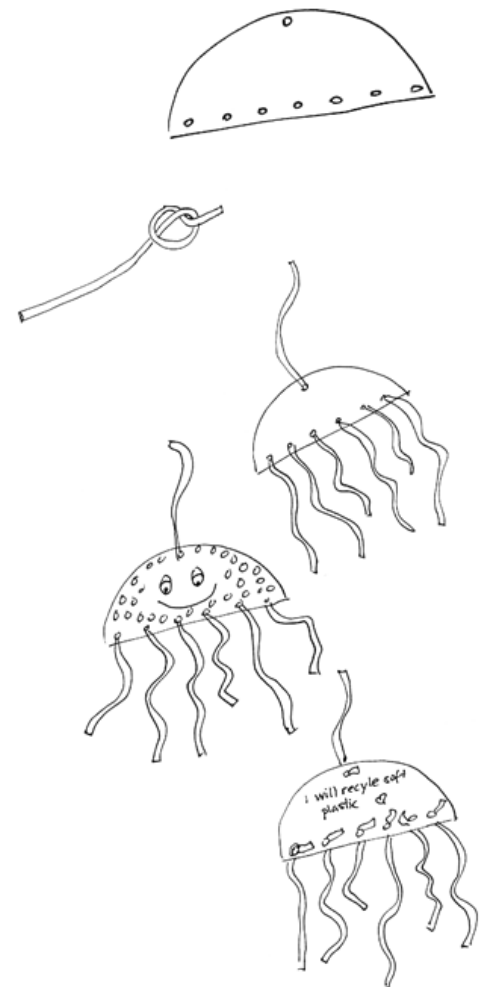
Step 2: Tie a knot in one end of each strip of material

Step 3: Pull a strip through one of the holes until the knot stops it. Repeat with other tentacles and at the top (for hanging). Knots should be at the back.

Step 4: Decorate the front of your jellyfish in any way you wish. You could draw a face, patterns or both!

Step 5: On the back of your jellyfish you may want to write a promise to help the oceans and the environment. For example, it could be to recycle soft plastic or to stop using plastic bags.

Step 6: Hang up your jellyfish and give yourself a pat on the back for doing such a good job.



www.nicolegodwin.com

Have a go at augmented reality!

Indigital Schools is an Indigenous designed digital skills training program for Indigenous and non-Indigenous kids and teens.

Connect with and learn from Elders about cultural knowledge, history and language... Learn digital skills in cutting-edge technologies like augmented reality, animation and coding. Bring what you learn to life by creating animated characters and stories using Paint 3D, Minecraft and Blender applications. Then share them with friends and family.

Try out a sample of our AR experience for yourself!

- Download the Digital Custodians app from Apple store
- Scan this QR code
- Once content has loaded, move your phone so the camera can detect a flat surface (like a table) and tap on the screen to place the AR content in the real world.



<https://indigitalschools.com>

Animating Indigenous sci-art



The Australian Society for Parasitology worked with animators at James Cook University and local and Indigenous artists to create an animation of Bernard Lee Singleton's parasite artwork "Gula guri Mayin".

They will have a series of online events for National Science Week 2020 too!

<https://www.parasite.org.au/outreach/gula-guri-mayin/>

© Bernard Lee Singleton 2015

CANBERRA
WOMEN OF
SCIENCE
AND ART



Calling environmental leaders

Brought to you by Trash Gather, Rubbish Rangers is a new youth education program! It's a fun, hands-on program for Canberra students, empowering them to become environmental leaders, or 'rubbish rangers' in their communities!

It includes a workshop (you'll learn all about the "life-cycle of rubbish"), a school clean-up, and help to become Rubbish Rangers at home and in your community.



www.trashgather.org/rubbishrangers

Interested in Film?

The first ever Future Film Festival is happening in 2020.

It's a film competition and festival for young people in Canberra to express their ideas for a sustainable future. It aims to flip the switch on the climate crisis.

WOW! The winning filmmakers will receive awesome prizes, and their films will be screened in the Canberra Short Film Festival, September 2020. Submissions close on the 25 September.



www.see-change.org.au/futurefilm



The difference between science and the arts is not that they are different sides of the same coin... or even different parts of the same continuum, but rather, they are manifestations of the same thing. The arts and sciences are avatars of human creativity.

– Mae Jemison (a doctor, dancer, physicist and astronaut)

Outdoor nature + art activities



NatureArt Lab has created some fun activities for you to do outdoors, perhaps during a visit to a local nature reserve. Find things, observe, draw and play.

*You will need paper or a journal and some pencils.

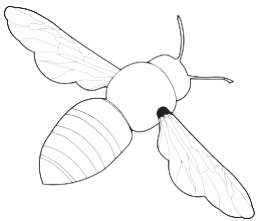


Ephemeral artwork

See if you can find some leaves or objects that have fallen on the ground (please do not pick any leaves or flowers from plants!) Create some interesting patterns or designs with what you have found!

Find a rainbow!

Can you find plants or flowers or other nature objects that are red, orange, yellow, green, blue or purple? Colours are all around us in nature! Maybe you could draw these things in your nature journal.



Bee curious

Can you find somewhere that native bees might enjoy living?

Texture Rubbing

Create 3 interesting texture rubbings – this might be from fallen leaves, bark or pebbles.



Draw what you hear

Close your eyes, what can you hear? Can you write about or draw 3 different things that you noticed?



The full *Nature Adventure & Golden Sun Moth Threatened Species Art Activities* kit is available at the Canberra Women of Science and Art website or at: www.natureartlab.com.au



From eight-years-old, Beatrix Potter (the creator of Peter Rabbit and his friends!) was already studying and recording the characteristics of a wide variety of animals, birds and insects in a home-made sketchbook. (Source: <https://www.vam.ac.uk/articles/beatrix-potter-drawn-from-nature>)

More STEM + art activities

Experiments to do at home

Get your hands on 150 FREE experiments exploring light, sound, electricity, geology, biology, engineering and more!

(<https://www.fizzicseducation.com.au/free-resources>)

Questacon at Home

Fun Science Activities for Kids of all Ages (... I'm looking at you parents and guardians). Here's a huge collection of activity sheets for children from Kindergarten all the way through to Year 12.

(<https://www.questacon.edu.au/discover/questaconathome>)

Girls in gaming, tech, design...

The Girl Geek Academy is teaching 1 million women to learn technology by 2025! And they run FREE moderated online forums where girls from eight years old can hang out alongside the Girl Geek Academy team in a safe environment.

(<https://forums.girlgeekacademy.com>)

The Green Light for Girls portal provides FREE online resources for kids. E.g. videos, podcasts, websites about STEM learning (<http://www.greenlightforgirls.org/online-science-fun>)

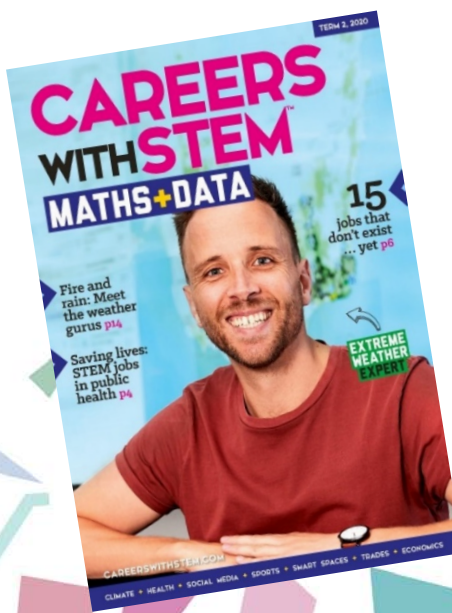


What new app could be designed by a mathematician and a musician?

Thinking about your next step?

Careers with STEM provides heaps of resources for kids and young adults to explore career opportunities in STE(A)M. Visit the website <https://careerswithstem.com.au> to find awesome things like:

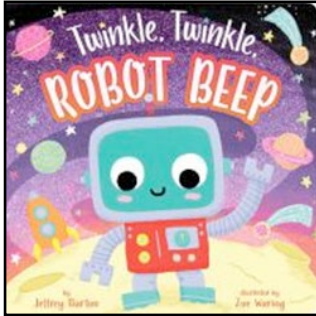
- Tips, careers help (like: *Uni not for you? How to kickstart a STEM career without a degree*)
- Loads of stories about young people in STEM
- Teacher guides, posters, videos, competitions, quizzes... The awesome list goes on!



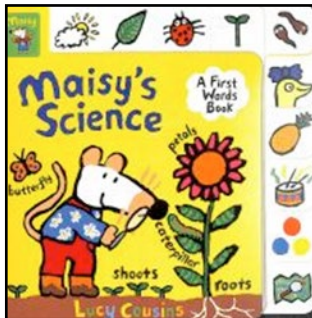
Recommended resources from Libraries ACT

0-2 YEARS

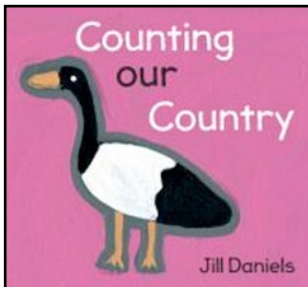
A twist on a popular nursery rhyme featuring robots.



Popular character Maisy the Mouse helps young children learn basic science words.



Learn how to count native Australian animals with beautiful paintings featuring Indigenous languages.



3-5 YEARS

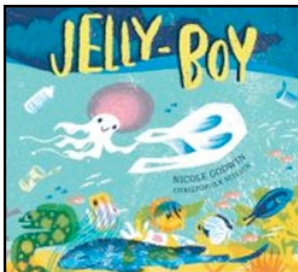
Full of word play and inspiring illustrations, discover what comes out of the magic lamp with Ribbit, Rabbit and Robot!



Discover how this Canberra backyard changes when animals come to raid the fig tree!



This little jellyfish falls in love with a plastic bag. Why are there so many of them in the ocean?



A podcast by Left Lane Theatre for 4+ that includes lots of opportunity for imagination, creative play, acting out the story and learning about plants! You can listen for free by visiting Libraries ACT's vimeo account @ [Vimeo.com/librariesact](https://vimeo.com/librariesact)

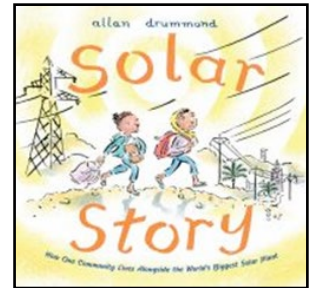


6-8 YEARS

Ara loves numbers and solving BIG problems. Together with droid DeeDee nothing is impossible.



Learn how this community in Morocco was transformed by the sun!



The slightly gross truth about turning your scraps into green energy!



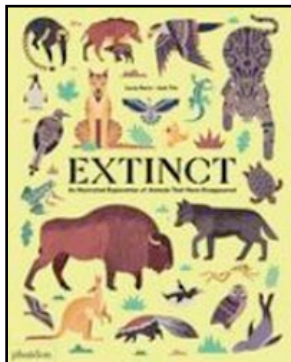
Find lots of fun and simple science experiments to do in your own backyard!



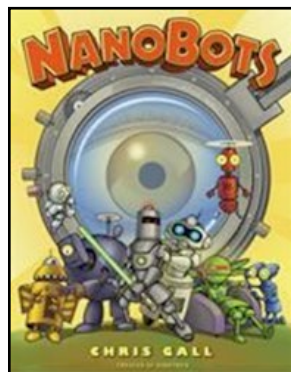
Recommended resources from Libraries ACT

9-11 YEARS

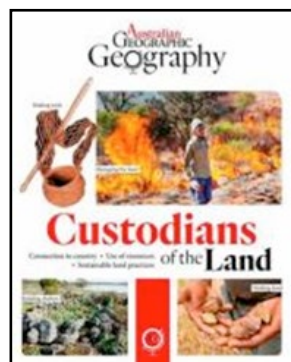
An illustrated exploration of animals that have disappeared.



A young inventor accidentally creates a group of tiny robots that use their unique abilities to become incredibly useful.



Investigate how indigenous knowledge and practices are linked to sustainable use of resources influenced by the environment.



An online game free with Libraries ACT membership to build up your coding skills! Visit librariesact.spydus.com and click on digital resources.



12-14 YEARS

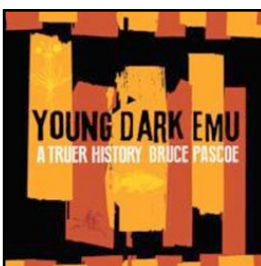
Due to an administrative mix-up, troublemaker Donovan Curtis is sent to the Academy of Scholastic Distinction, a special program for gifted and talented students, after pulling a major prank at middle school.



With streaming services on Twitch and YouTube, no matter the time of day, gamers can watch anyone playing their favourite games. Friends half a world apart can play games together. There's no better time to be into gaming technology.



Australia as it was before Europeans arrived - a land of cultivated farming areas, productive fisheries, permanent homes, and an understanding of the environment and its natural resources that supported thriving villages across the continent.



An online, interactive and free magazine with Libraries ACT membership for ages 6 to 14. Visit librariesact.spydus.com and click on digital resources.

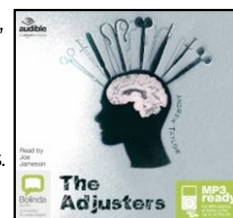


14+ YEARS

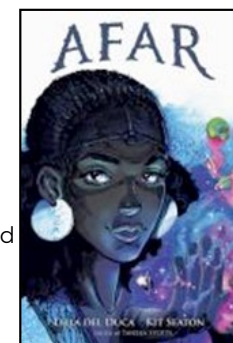
When 100 juvenile delinquents are sent on a mission to recolonise Earth, they get a second chance at freedom, friendship, and love, as they fight to survive in a dangerous new world.



Welcome to Newton, the perfect town: where the kids get perfect grades, lead perfect lives and never break the rules. But something is rotten at the heart of Newton...



In a post-industrial desert wasteland, fifteen-year-old Boetema develops the ability to astral project to other planets. On her own planet, with her parents gone, she and her thirteen-year-old brother, Inotu, must cross a dangerous desert to flee a cyborg bodyguard.



A beginner-friendly guide to creating mobile apps for Android and iOS devices using MIT App Inventor. Provides instructions to make interactive video apps, games



Scholarships, internships and job programs

Australian National University

ANU provides a range of scholarships, including for students schooled or resided in a rural, regional or remote area, experiencing financial hardship and experiencing challenges that may have affected your schooling or ability to attend university. Find out more:

<https://www.anu.edu.au/study/scholarships>

Here are some examples:

- ANU Science, Health and Medicine Indigenous Undergraduate Scholarship: \$10,000 per year for students of Aboriginal or Torres Strait Islander descent.
- ANUSA Parents & Carers Grant: \$250-\$1000 to assist undergraduate ANU students who are carers.
- Australian National Scholarship (up to 50 available): \$8000 per year, for talented students from disadvantaged backgrounds.
- Ben Williams Student Support Grant: \$14,000 per year, for students with special difficulties such as mental illness, sickness, disability.
- Christina Richards Scholarship: \$5000 per year, offered to assist in overcoming barriers such as financial hardship, having carer or sole parent responsibilities or living in a regional, rural or remote area.

University of Canberra

Scholarships are also available with the University of Canberra to help students with challenging circumstances. Read more here:

<https://www.canberra.edu.au/future-students/financial-support/scholarships-and-financial-support>

Some examples include:

- Rotary Club of Ginninderra Hockley Scholarship: \$6000, awarded to financially disadvantaged recent school leaver from a school in northern or western suburbs of Canberra and one who demonstrates a spirit of community engagement and voluntary activity.
- Rotary Club of Belconnen Nursing Scholarship: \$5000, for financially disadvantaged Nursing students who can demonstrate community engagement and an interest in working in rural and/or indigenous nursing fields.
- Rotary Club of Belconnen Scholarship: \$5000, for financially disadvantaged students who have demonstrated community engagement.
- Salthouse Leadership Scholarships for Women: \$5000, for female students with a disability and/or chronic health condition to enable them to develop their leadership potential.
- UC Foundation Refugee Scholarships: \$3000, for financially disadvantaged refugee students.
- UC Foundation Scholarship for Students with a Disability: \$3000.

Australian Catholic University

You could be eligible for one of the hundreds of scholarships ACU Canberra awards every year. More here:

<https://www.acu.edu.au/study-at-acu/fees-and-scholarships/scholarships>

Some examples include:

- Aboriginal and Torres Strait Islander Accommodation Scholarship: to assist Aboriginal and Torres Strait Islander students who are living away from home and community.
- ACU Equity Scholarships: \$2000, to financially assist students from low socio-economic backgrounds.
- Community Engagement Scholarship: \$5000, recognises and rewards ACU students who demonstrate a commitment to ongoing development of their knowledge and skills in community engagement, outside of their course requirements.
- DOOLEYS Lidcombe Catholic Club Undergraduate Scholarship: \$4000, to financially assist undergraduate students, suffering financial hardship, to continue their studies.
- Mary MacKillop Scholarship: \$4000, for undergraduate students who can demonstrate support and involvement in Aboriginal and Torres Strait Islander communities.

Canberra Institute of Technology

Assistance includes scholarships and grants for youth with diverse backgrounds needing assistance due to factors such as: mental health, refugee status, financial background, Aboriginal and Torres Strait Islander background. More:

https://cit.edu.au/study/course_fees_and_assistance/scholarships

Defence Science and Technology

- STEM Cadetship Program (see <https://defence.gov.au/APSCareers/stem-cadetship.asp> with a great video on there!). This program pays students while they study and gives them industry experience for the last 1-3 years of their degree and flows into an ongoing job at the end of it all.
- Defence Industry Internship Program (DIIP, <https://diip.com.au/>) offers industry based opportunities for students while they study.

Thanks to our incredible supporting partners



ACT
Government

LIBRARIES ACT



Vinnies
good works

CAREERS
WITHSTEM.COM

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SCIENCE
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