

GEOGRAPHY BULLETIN



The
Geography Teachers Association
of NSW & ACT Inc.

Volume 53 No2 2021

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HISTORIES AND CULTURES**

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The Supply Chain – Assessment Task

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Queen of Katwe

**TEACHING RESOURCES – FOCUS ON ABORIGINAL &
TORRES STRAIT ISLANDER HISTORIES AND CULTURES**

PROJECTS • REPORTS • RESOURCES • ARTICLES • REVIEWS

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GEOGRAPHY BULLETIN

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The Geography Bulletin is a quarterly journal of The Geography Teachers' Association of NSW & ACT Inc. The 'Bulletin' embraces those natural and human phenomena which fashion the character of the Earth's surface. In addition to this it sees Geography as incorporating 'issues' which confront the discipline and its students. The Geography Bulletin is designed to serve teachers and students of Geography. The journal has a specific role in providing material to help meet the requirements of the Geography syllabuses. As an evolving journal the Geography Bulletin attempts to satisfy the requirements of a broad readership and in so doing improve its service to teachers. Those individuals wishing to contribute to the publication are directed to the 'Advice to contributors' at the back of this issue.

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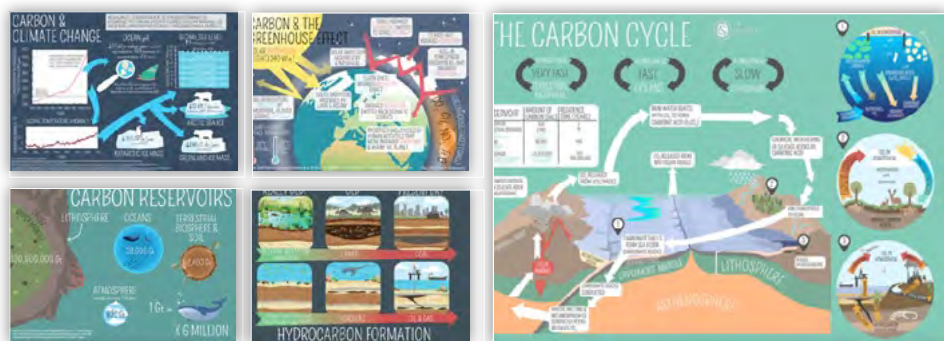
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EDITORIAL

It is with great excitement that we bring you the second edition of the Geography Bulletin for 2021. This is our first role as Editors and we hope you enjoy reading the issue and find the resources that have been provided by Geography teachers and GTANSW & ACT Councillors useful. We look forward to receiving more contributions from Geography teachers in the future. Contributors who are not GTA Councillors will receive a poster pack for their published material.

Poster pack: The Carbon Cycle



The theme of Edition 2 is teaching resources. Thank you to all teachers and GTA councillors for sharing resources and ideas.

The following resources and articles have a focus on **Aboriginal and Torres Strait Islander Histories and Cultures**.

- A framework for learning about Aboriginal and Torres Strait Islanders in the Geography classroom – Martin Pluss
- Value of Land – Rebecca Sutcliffe
- Kanyini – Grace Larobina
- The Torres Strait Islands – Lorraine Chaffer
- Traditional Knowledge: Cultural Burning – Lorraine Chaffer
- Aboriginal Cultural Connections and the Hawkesbury River – Lorraine Chaffer
- Understanding Nations and Language Groups – Katerina Stojanovski

Other resources in this edition cover different Stage 4 and 5 topics.

- **Interconnections**
 - The Supply Chain from David Latimer
 - Retell the news: Stimulus based classroom activity – Lorraine Chaffer
- **Landscapes and landforms**
 - STEM Resource: Oreo Plate Tectonics from Christina Kalinic and Katerina Stojanovski
- **Human Wellbeing**
 - 1 Dollar Poverty AND Film Study: *Queen of Katwe* (2016) – Christina Kalinic

This edition also includes reports on GTANSW & ACT activities from Semester 1 and flyers about other professional learning opportunities for Semester 2.



Editors:
Katerina Stojanovski & Rebecca Sutcliffe



Ivan Motley, founder of .id Informed Decisions, presenting at the annual conference

This year GTA held another successful Annual Conference, *The Geography Learning Journey: Shaping futures*. The conference was a two day face to face event. Everyone was happy to be able to meet and learn face to face despite the uncertainty around COVID lockdowns. Organising this conference is a big undertaking. A big thank you must go to Lorraine Chaffer for her dedication and commitment in delivering another successful, well attended event. If you missed out on the conference, Lorraine has generously prepared a Digital Conference Package which you can purchase.

The webinar team have delivered two highly successful webinars, *From the Academy* and *From the Classroom*. The first webinar was delivered by Professor Sue Jackson and Dr Lana Hartwig, from the Australian Rivers Institute, Griffith University, QLD. They shared their research findings about Indigenous water management in south-eastern Australia. The second webinar was delivered by Chris Betcher, Program Manager Google for Education and he presented on Google's Geo tools. More webinars will be available in Term 3 and Term 4.

Stage 6 Geography teachers will be able to access the 2021 HSC Geography Exam Preparation package. This resource consists of pre-recorded videos and support materials to assist students revising for their TRIAL and HSC Examinations.

GTA continues to offer NESA accredited PD until 31st July 2021. Teachers can complete online courses which range from three to five hours at their own pace. The courses available include Place and Liveability (beginner and experienced), Landscapes and Landforms, Concepts 1 and 2, Intro to Maps and Intro to Topo Skills.

Thank you, Lorraine Chaffer (GTA NSW & ACT) and Jill Sillar (Graphic Designer at PTC NSW) for your mentoring, support and guidance as articles were collected and prepared for publication. Your expertise and knowledge was invaluable during the last few months.

Katerina Stojanovski and Rebecca Sutcliffe



President's Report

As we find our “new normal” after 2020, the extent to which human systems operate within the boundaries of biophysical systems has been repeatedly demonstrated. Time and again over the last 18 months, it has felt as though the importance of Geography has been demonstrated almost everyday through events such as bushfires, the Covid-19 pandemic and economic instability.

However, teachers have had to work harder than ever to incorporate new forms of teaching and technology into their repertoires. The need for the supporting role of professional associations, such as the GTA NSW & ACT is greater than ever.

This Bulletin edition comes recently after a very successful 2021 Annual Conference. The theme of our conference this year was “Shaping futures”. Our two keynote guest speakers spoke to the importance of narrative or storytelling in creating change in our world. Writer, Director and public speaker, Damon Gameau, spoke about the significant environmental crises facing humanity in decarbonising our lifestyles. Damon highlighted the opportunities to employ regenerative agriculture practices - a powerful vision of what he called “radical hope” looks like. While Ivan Motley, founder of .id Informed Decisions discussed the power of Geographers to use their unique forms of communication to tell engaging stories about the trends and changes underway. Throughout the remainder of the conference, 40 different presentations over two days helped Geography teachers to build their teaching practice with a range of classroom hacks, teaching strategies, new technologies and subject knowledge. An enormous thank you must be extended to Lorraine Chaffer for delivering yet another fabulous conference.

It has been my absolute pleasure to lead the Geography Teachers Association this year. As an organisation built to support our members, the councillors and executive have volunteered enormous time and effort to provide resources that support teachers in developing their Geography teaching practice. In response to Covid-19 a number of new forms of PD have been made available. The 2021 webinar series offers members access to both pedagogical and subject experts. Our new online courses allow Geography teachers to access high quality PD on demand. And lastly, the refreshed Young Geographer Awards have been developed to better engage students in inquiry based learning projects.

I wish you all the best in your powerfully transformative role as a shaper of futures (sometimes also called a Geography teacher), and hope you can find helpful resources in this edition of the GTA Bulletin.

David Latimer
Relieving President GTA NSW & ACT

2021 ANNUAL CONFERENCE REPORT

The Geography Learning Journey: Shaping futures



Conference opening by Rel. President David Latimer

Lorraine Chaffer
2021 Annual Conference Convenor

The 2021 GTA NSW & ACT Annual Conference was another successful conference event held at Stadium Australia, Sydney Olympic Park on Thursday 13th and Friday 14th May.

There were 156 delegates on Thursday and 150 on the Friday. Many teachers attended both days. There were 28 different exhibitors and 40 presenters from schools and organisations across NSW and Queensland. While numbers were below those of 2019, teachers, presenters and exhibitors agree that this was a wonderful event, appreciating the opportunity for, and value of, meeting in person when many PL events are still online.

As a volunteer organisation, GTANSW & ACT relies heavily on the goodwill of GTA councillors to ensure the smooth running of the event on each day. Twelve councillors were released from their schools to support the association over the two days in roles that included bump in and out activities, registration desk, poster station, parking station and breakout rooms introducing, thanking guests and presenting. Thank you David Latimer, John Lewis, Sharon McLean, Paul Alger, Michael Da Rosa, Drew Collins, Alexandria Warnock, Rebecca Sutcliffe, Katherine Simpson, Keith Hopkins, Adrian Harrison and Martin Pluss. GTA also thanks the contribution of Rona Afenir and the Professional Teachers Council NSW for administration before, during and after the event.

The Keynote speakers, Damon Gameau and Ivan Motley gave excellent presentations, each highlighting the important role of geographical understanding and Geography as a subject in addressing global issues and making decisions for the future. Damon's Keynote was by ZOOM, a decision based on reducing travel and fitting in with Damon's busy filming schedule. Ivan also presented a popular workshop on using the tools of his business .id.



Damon Gameau Keynote



Ivan Motley in workshop mode.



Sponsor Anzuk Education with their scholarship winner Rose Gardner,



Sponsors Sydney Olympic Park with their scholarship winner Denna Purton

Sponsors

Sponsorship was provided by Mobile Muster (Australian Mobile Telecommunications Association), Sydney Olympic Park Authority, Sydney Water, Education Perfect and Anzuk Education. The diversity and quality of presentations and the attendance of four scholarship winners at the conference was made possible through sponsorship.

Awards

Teacher Awards were announced and presented at the conference. Award recipients were:

- **John Lewis:** GTA NSW & ACT Life Membership
- **Samantha Coburn:** Brock Rowe Award jointly awarded by GTA NSW & ACT and the NSW Geographical Society for excellence in teaching Geography in schools.
- **Fleur Farah** and **Sharon McLean:** Geoff Conolly Memorial Award for a meritorious contribution to the *Geography Bulletin*, the association journal.



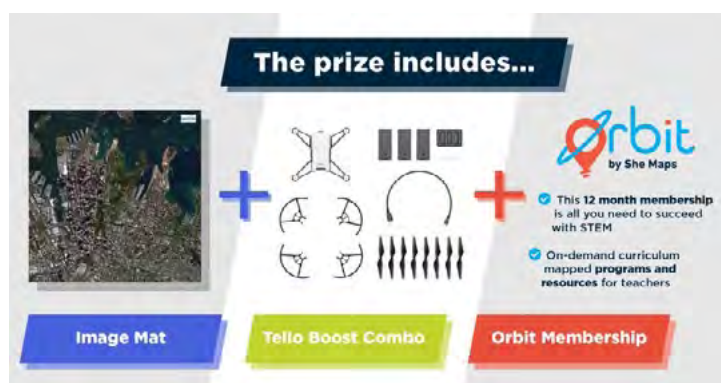
Award presentation to Sharon McLean



Katie Vidal from SheMaps presenting Kieran with his prize.

Registration Prize

Congratulations to Kieran Bonin, Orange High School, the winner of the registration prize of a Drone Kit purchased by GTA NSW & ACT from SheMaps.



Conference Feedback

A short **survey** was sent to teachers who attended the conference. A summary of positive responses, criticisms and suggestions for improvement are shown in the table below. Many thanks to those teachers who have made time to complete the survey. The survey remains OPEN and GTA encourages any conference attendees to contribute feedback to inform future conference planning. Some responses have been provided to clarify decisions made during conference planning.



THE GOOD	
I thought that this conference was one of the better ones that I have ever attended across a variety of subject areas. Thank you for organising something so well!	
Thank you for organising such a valuable conference. Thoroughly enjoyed it.	
Overall fantastic.	
I had a great experience, thank you to all of the organisers and presenters.	
I think that the manner in which the two days were runs was excellent.	
There is great value in meeting with other teachers and educators and seeing the resources available. The presentations were relevant and can be used in a variety of ways both directly and indirectly to feed back into teaching and learning experiences in the classroom and in fieldwork.	
Thank you to the GTA Committee and volunteers who go above and beyond to create such a relevant event.	
Keep doing what you are doing. I felt supported which is so important being the only trained Geography teacher at my school.	
Great variety especially as this was the first time attending this conference. Fantastic ideas and resources to take back and implement within the faculty.	
Keynote speakers were very good. Is important to have quality speakers. Perhaps population as a theme.	
There was a variety of presentations addressing relevant topics, good intersection with technologies which showed how the various technologies can be integrated in the classroom. Sessions were a suitable length.	
I thoroughly enjoyed all that I attended – 1e, 2a and 4b – all were valuable to me as teacher with only 6 years of experience, and teaching seniors fairly recently. The people running them were organised, connections to the syllabus were made clear and the resources provided were great!	
Highlight – Human Wellbeing session – highly valuable, tangible resources and well explained.	
Highlight- Really enjoyed David Proctor sessions, Sydney Water (was fabulous) and the Seaweed (Pia Winberg) lecture	
Highlight – Discovering how using spatial technologies, social media and networking was a highlight and collaborating with staff from other schools.	
CONCERNS – ROOM FOR IMPROVEMENT – SUGGESTIONS	Comments taken on board ✓
More workshops with small practical changes we can implement in our classrooms.	
I did not attend on day 1 but would have appreciated an update on the new stage 6 syllabus.	
What's happening with the new senior course? The suggested curriculum changes that are in the works?	
Could something related to these be added to the program please. ✓	
<i>There is no new information from NESA re Stage 6 or progress on the NSW Curriculum Review that will affect Geography at this point in time. GTA will share when we know more.</i>	
More workshops on skills and fieldwork for teachers who are not Geography specialists	
A good mix, I feel there should there more to support new teachers, this would also benefit those teachers for whom Geography is not their major teaching subject. ✓	
Syllabus specific workshops for Stages 4–6 Geography.	
<i>GTA understands the needs of non-geography trained teachers and since 2017 many conference sessions have been provided in Sydney and at regional conferences for skills and fieldwork. The GTA E-learning courses are targeted at inexperienced and non-trained geography teachers as cost effective additional PL programs. The GTA website also has past conference presentations for viewing by members that may help non trained and early career teachers – including Syllabus specific sessions for each topic.</i>	

Offer more practical options. Perhaps more of a brief about what lecture sessions will entail and what teacher it is aimed at (e.g., new teachers, experience teachers with lack of technology skills, new teachers to geography, refreshers, teachers aiming to build practical skills etc) ✓

Give indication of teaching experience or level as a number of sessions were not useful due to my experience. ✓

The Conference Abstract attempts to guide teacher choices. What is presented often does not always meet expectations or match abstracts. Efforts can be made in the future to improve this.

I did enjoy the mix of presentations, however it would be good for more double ups in presentations, as some were booked out due to limits on participants. If a fieldwork option is given, please inform participants that they will need to be adequately dressed as they will be offsite. ✓

Double ups are difficult because it is impossible to know what the most popular presentations will be. The program is set before choices are made. In exceptional cases extra sessions are added but this complicates the programming and rooming. Popular sessions are often repeated the following year when possible. Also, many presenters are only available on one day. Fieldwork option clearly stated 'in the field'.

A lot of the presentations seemed to focus on the human geography topics, a mix with more physical geography would be good (or perhaps that's the sessions that I chose?)

There were a lot of physical geography topics on the Friday in 2021. This may have been a choice issue.

Perhaps some sessions relating to the elective geography course too ✓

There have been presentations in the past on Elective Geography, however finding presenters has proven difficult due to a limited number of schools offering elective geography. Point taken.

Good length for most workshops – although some of the 'hands-on' workshops could have been longer to get a chance to action some of the ideas etc. ✓

Good, though I would have loved the separate Stage 6 day as planned for last year so that I could have had more specifics for Stages 4 and 5, as well as Stage 6 in the mix of what I went to see. ✓

Separate Stage 6 events have been run since 2017 however with Covid restrictions it was considered too risky to spread an event over 3 days when numbers were likely to be smaller. If a new Stage 6 Syllabus is released this year, there is the potential for a 1-day conference in Term 4 and again in 2022 when demand for S6 PL will be high.

More time needs to be given to look at trade shows. First day I did the fieldwork session, and we only came back for lunch. I was then planning to look at the trade shows the next day, but some were not there.

Apologies that you missed some trade displays. There were only four less exhibitors on the Friday. (28/24)

Having the PPT Presentations provided on a USB/Gdrive Folder for access during & after the day. ✓

Perhaps a feature on the website, somewhere attendees could access links from presenters on the day. Many used QR codes which was great but another step. ✓

In an ideal world GTA would love to receive presentations prior to the event. These are requested but many presenters are often finalising their work the night before. Of the 40 sessions most are now in the Google Drive that has been shared with attendees. There are also some video sessions that will be shared with those who attended each day when formatting is completed.

Having teacher's present how they teach certain units to their classes – worksheets and activities that do not need a whole year group to be taken out of school to complete. Activities that can be adapted to any stage and academic ability. ✓ *Many of our teacher presenters do this.*

Leave the app open longer if possible – I did not attempt to download 2nd day notes until I got back to school, and they had disappeared. ✓ *This we can do in the future. Apologies for closure of the APP early.*

If a keynote is going to be a virtual delivery that would be good to know in advance.

Some venue issues – some of the smaller rooms e.g., Platinum and Ambassadors) were long and skinny and the screens quite small – made it difficult to see. Lack of map to know where things were.

Lack of water refill stations.

Unfortunately, in most venues, including hotels, options for breakout rooms are limited in size and shape. It is always a consideration when visiting and selecting venues when multiple rooms are needed. There were guides on level 5 to assist with directions and rooms were labelled. There were plumbed water stations in the main conference room and water urns in all breakout rooms so lots of refill options.

More sessions that are practical, applicable classroom ideas across the syllabus.

There has always been a balance between workshop / practical class-based activities and knowledge-based presentations as both are important for PL. All sessions have syllabus links, and GTA will continue to ask presenters to draw these out.

Tips and information on running board endorsed subjects as electives e.g. the permaculture certificate

Notebook in the bag, not on the table.

Notebooks and pens are provided by venues and our volunteers do not have time to prepack conference bags on the morning of the conference. Delegates can easily pack notebooks into their bags.

Better speakers and more interactive activities

A lot of walking between session venues at times and the food and areas to eat were very spread out and hard to catch up with people.

Venue – perhaps a hotel in CBD or Parramatta where people could stay at the venue and easily accessed through public transport with parking available as well. ✓

Each venue GTA uses has been used 2 years in a row. Other venues will be considered moving forward

Keynote – prefer to have live rather via zoom as it is just not as engaging. Suggestions: Hugh Van Cuylenburg, Jimmy Halfcut, Pete Ceglinski, Mark McCrindle, Craig Reucassel, Jon Dee. ✓

Cost is an issue when getting Keynote speakers and selecting venues. Celebrity speakers can cost between \$5000 – \$10,000 for 30 minutes. Availability on dates requested is another consideration. Zoom was a Covid / travel / sustainability driven consideration in 2021.

City venues and hotels are more expensive, often have fewer breakout spaces and parking stations \$40 – \$50 a day. These are all considerations when selecting venues.

Conference Package

A NEW opportunity in 2021 for schools unable to make the 2021 Annual Conference to access recorded presentations and resources. This applies particularly to schools in rural and regional centres where travel costs and shortage of casual staff limited teacher attendance. GTA are also aware that many schools will not yet allow teachers to attend a live event. See flyer following this report.



Hands on activities with SheMaps (Map My School)



Hands on activities with Big Issue Classroom.



Presentations and trade displays by Picture You in Agriculture and the NSW Surveyor General (Surveying Task Force exhibit) focused on skill building and future careers using Geographical understanding and skills.





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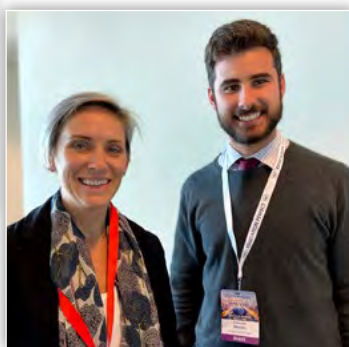
[epforlearning](#)

GTA Conference Scholarship winners

Four teachers were awarded a scholarship to attend the 2021 Annual Conference – The Geography Learning Journey: Shaping futures.



Left: Scholarship recipient, Kieran Bonin with GTA Hon Treasurer, Dr Grant Kleeman



Right: GTA Councillor, Rebecca Sutcliffe with Scholarship recipient, Cameron Menzies

The scholarship winners were:

- **Kieran Bonin – Orange High School**
- **Rose Gardner – Warakirri College**
- **Cameron Menzies – Red Bend Catholic College**
- **Denna Purton – Melville High School**

Thank you to Anzuk Education and Sydney Olympic Park Authority for supporting these teachers to attend the conference.

Rose Gardner illustrated in her report below to the GTA NSW & ACT how the knowledge learned at the conference will be implemented at her school.

GTA Conference Report – Written by Rose Gardner

I attended the GTA Conference this year as a scholarship recipient and I am so thankful for the opportunity to attend. At the Conference, I attended some fantastic workshops that gave me new ideas to take into the classroom, such as the Human Wellbeing for Kinaesthetic Learners by David Proctor, and Permaculture and the Deep Learning Framework by Chris Tejcek. I also found the Stage 6 marking and assessment workshops especially helpful, as I was able to develop my skills in marking and learn from my peers who were participating in the workshops with me.

Working in a non-mainstream school with disadvantaged youth, one idea I gained from the Conference, and am currently in the process of implementing within our school, is creating a 'Kinaesthetic Learning Toolbox' for Geography classes across all three of our campuses. Engaging in David Proctor's workshop and being able to use the resources and do some of the activities that he implements within his own classes really inspired me to do the same within my own school, as it is not only fun and engaging but develops student knowledge in a way where students who have low literacy skills can excel. I have brought these ideas to my colleagues and from there we have been able to design new activities and elements of the programs across Stage 5 which will implement these tools and engage students in a new way of learning. We are especially excited to introduce the population pyramid blocks and the fieldwork boxes to our students and see how they respond.

Attending the GTA 2021 Conference not only left me with new ideas and greater skills, but I walked away with a new sense of confidence and invigoration to teach Geography and make it relevant and accessible to all of my students.



Left: Rose Gardner

Below: HSC Marking workshop



Left: Kinaesthetic Learning Toolbox presentation by David Proctor

Below: Relieving GTA President David Latimer opens the 2021 Annual Conference



Mobile Connections is a Geography teaching and learning program in the Interconnections content area. It allows students to look at their personal connections to mobile technology and the impact it has on society, the economy and the environment.

MOBILE CONNECTIONS

Education Resources

- Curriculum Unit
- Animations & Interactives
- Digital Book
- Teacher Professional Learning



Download the free education resources at mobilemuster.com.au





The Geography Teachers' Association of NSW & ACT

DIGITAL CONFERENCE PACKAGE

For Terms 3 & 4 2021

GTA NSW & ACT is providing **ONE TIME** access to selected presentations recorded at the 2021 GTA Annual Conference to schools unable to attend due to factors unique to 2020–2021. Some recordings, particularly workshop sessions are condensed versions of the live events.

DETAILS

- Presentations in the package focus on the following Professional Teaching Standards
 - Standard 2: Know the content and how to teach it; and Standard 6. Undertake Professional Learning
 - [classroom practice](#)
 - deep learning about [environmental processes, change and management](#)
 - integrating [geospatial technologies](#)
 - identifying [careers](#) that draw on Geography
- Access is continuous until 30 October 2021 (Week 4, Term 4)
- Accessible at any time via a weblink with a passcode – not downloadable
- PPTs and support materials for each presentation as provided at the conference

HOW TO USE THE PACKAGE

- **Whole faculty /department/ team** viewing at team or staff meetings/ professional development days
- **Individual** viewing and discussion at team or faculty level
- For workshop sessions, stop and complete the activities as if you were at a conference.
- Elective PL Hours – reflection using the identified Teaching Standards
<https://etams.nesa.nsw.edu.au/help/how-to-log-teacher-identified-pd-index/>

COST

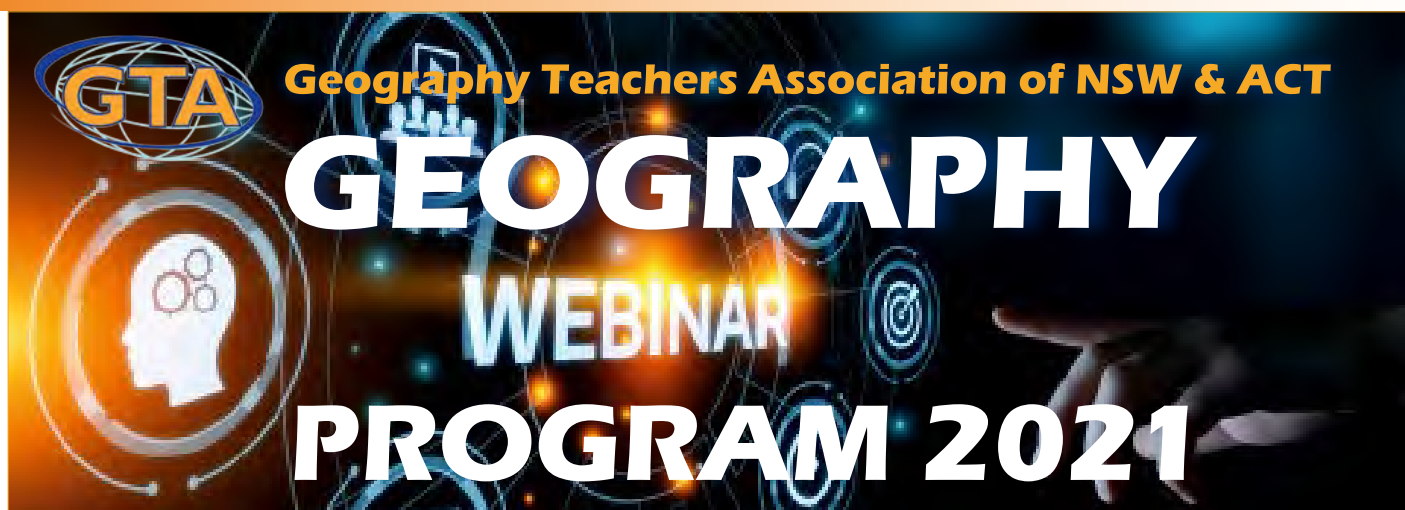
- **Member schools** – \$330 per school (inc. GST)
- **Non-member schools** – \$440 per school (inc. GST)

Open for registration from 21 June until 14 August 2021 to allow adequate time to make use of the materials in the package.

**ORDER & PAY
HERE**

See over for package details...

www.gtansw.org.au • gta.admin@ptc.nsw.edu.au • 02 9716 0378



This year, the webinars are coordinated by a small team: Susan Caldis, David Latimer, Alex Pentz and Rebecca Sutcliffe.

Due to recent changes in accreditation processes, the webinars will be available as 'Elective PD' to complete as part of your ongoing professional learning. As greater clarity and certainty emerges about accreditation of professional learning, the webinar team will take steps to ensure accreditation of the program is possible.

Webinars will continue to operate in Terms 3 and 4, between 4.30pm – 5.30pm and cost \$20 (members and non-members). The webinar team are excited to announce two concurrent themes to the webinar program:

- **From the Academy**, where Geographers from universities around Australia will present their research, with pre-reading, in alignment with a syllabus focus; and
- **From the Classroom**, where Geography teachers (and perhaps their students!) will share their practice, spark curiosity, and prompt dialogue amongst practitioners. A call for presenters was issued recently via social media

Coming soon!

Although dates are to be confirmed and further information will be available shortly, we are delighted to announce the following program so far:

Presenters for the 'From the Academy' program will include:

- **Dr Susannah Clement** and **Dr Carrie Wilkinson**, Australian Centre for Culture, Environment, Society and Space (ACCESS), University of Wollongong, NSW; Founder of 'Geographers Declare...A climate emergency?'
- Dr Dallas Rogers, School of Architecture, Design and Planning, University of Sydney, NSW; Founder of City Road Podcast
- Associate Professor Fiona Miller, Associate Professor Donna Houston, Dr Jessica McLean, Discipline of Geography and Planning, Macquarie University, NSW; Shadow Places Network

Presenters for the 'From the Classroom' program will include:

Mark Enser has been teaching geography for the best part of two decades and is Head of Department and research lead at Heathfield Community College in the UK. Mark is also a specialist leader of education (SLE) and evidence lead in education (ELE). Mark is a regular TES columnist and often speaks at education conferences. Mark has written several books for educators namely; 'Making Every Geography Lesson Count' and his new title 'Powerful Geography'. Mark will be sharing his experience on how to engage students in every geography lesson with ideas to hopefully increase our student uptake in geography.

Laura P or more commonly known by her Twitter handle [@missgeog92](#) is a UK Geography teacher who began teaching in 2018. In 2020 Laura completed her MA Ed from the University of Sussex. Laura excels in creating, and sharing, high level geography resources and content specific classroom displays. Laura is a mentor for newly qualified teachers (NQT). Laura will be discussing her most successful resources as well as divulging her ideas for creative classroom displays. If your imagination is a bit stuck and/or your classroom needs jazzing up then this is the webinar for you.

An exciting year is ahead for the webinar program and we look forward to your participation.



Webinar Review

Katerina Stojanovski, Stella Maris College

In term two the following webinars were delivered and proved to be popular with Geography teachers.

From the Academy

Professor Sue Jackson and Dr Lana Hartwig, from the Australian Rivers Institute, Griffith University, QLD shared their research findings about Indigenous water management in south-eastern Australia. Sue Jackson highlighted the varying access to water that Indigenous peoples have across Australia and the importance of access to water to improve the lives of Indigenous Peoples. Dr Lana Hartwig, discussed water justice for Indigenous Peoples in the Murray Darling Basin. Three academic readings were shared with participants as pre-reading. The readings provided additional depth to the issues presented. Participants can look back and utilise these readings to conduct thorough research into the topic of Indigenous Water Management which is backed up by evidence provided in the readings. Surprisingly the day after the webinar, the paper *Rivers as living beings: rights in law but no rights to water?* by O'Donnell (2021) was released. The paper highlighted the issues surrounding giving rivers rights in legislation as a legal person while at the same time restricting water flows. O'Donnell's (2021), research outlines:

"a comparative analysis of the legal and/or living personhood of rivers and lakes in Aotearoa New Zealand, India, Bangladesh, Colombia to identify the legal status of specific rivers, and highlight the disturbing trend of recognising rivers as legal persons and/or living entities whilst also denying rivers the right to flow"

This paper reinforced the findings presented by Professor Sue Jackson and Dr Lana Hartwig during the webinar. It would be suitable for Stage 5 Environmental Change and Management as teachers can use this research to assist them in critically evaluating the management strategy of granting rivers legal personhood. For example, the Whanganui River in New Zealand has been granted legal status as a person but does not have water rights under the legislation.

Whanganui River, New Zealand



Image source: <https://www.wcel.org/blog/i-am-river-and-river-me-legal-personhood-and-emerging-rights-nature>

Reference

Erin O'Donnell (2021) Rivers as living beings: rights in law, but no rights to water?, Griffith Law Review, DOI: 10.1080/10383441.2020.1881304



From the Classroom

Chris Betcher, Program Manager, Google for Education, presented the 'From the Classroom' series, and he provided a comprehensive overview of Google's Geo tools.

Chris presented a range of Google's Geotools which can be utilised across K-12 Geography. Chris covered Google Maps, Google My Maps, Google Earth, Streetview, Earth 3D imagery, Google Earth Studio Earth Engine Timelapse and Arts and Culture. Participants were provided a link to the presentation so they could follow on during the demonstrations. This was a practical workshop which was suitable for all levels of expertise in Spatial Technologies. Chris gave the participants many tips and tricks. For example, in Google Maps, choose "Globe" to view Earth in 3D Globe mode. Here you can see Greenland is much smaller than Africa. The standard Mercator Map projection shows Greenland to be almost the same size as Africa.

Google Maps

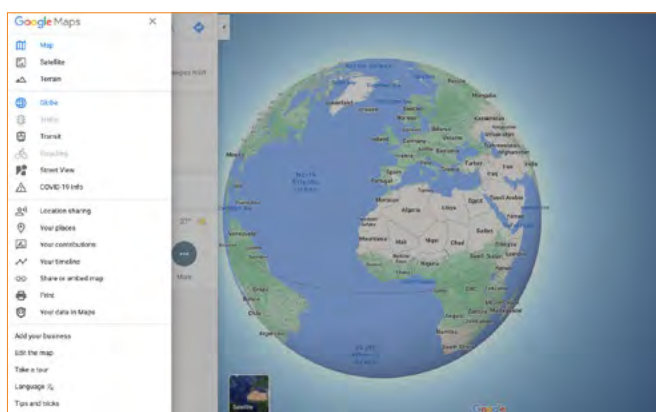


Image Source: <https://www.google.com.au/maps/@27.7144972,-19.1186644,2.82z?hl=en>

Mercator Projection



Image Source: https://en.wikipedia.org/wiki/Mercator_projection



Google Earth Outreach



Google Earth Education

Image Source: Google Geo Tools Presentation



Google Maps



Google MyMaps



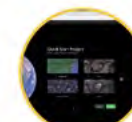
Google Earth



Streetview



Earth 3D Imagery



Google Earth Studio



Earth Engine Timelapse



Arts and Culture

Image Source: Google Geo Tools Presentation



Geography NESA Accredited PD

GTA's online courses are NESA Accredited PD in the priority area of Delivery and Assessment of NSW Curriculum.

This is what one Geography teacher had to say after completing the new Landscapes and Landforms course:

"This was awesome. Fantastic ideas and resources. I recommend it to all."

If between now and 16th July 2021 you register for and complete TWO courses, then email gta.elearning@gmail.com and ask for TWO courses for free – and that's what you'll get – Buy TWO Get TWO FREE.

NOTE: All courses must be completed by 31st July 2021 to be eligible to count towards NESA Accredited PD.

Here are the courses available via <https://www.gtansw.org.au/professional-learning/>:

Geo 141: Teaching Place & Liveability (3hrs)

Geo 241: Teaching Place and Liveability (experienced) (3hrs)

Geo 142: Teaching Landscapes & Landforms (3hrs)

Geo 101: Concepts Part 1 (5hrs)

Geo 102: Concepts Part 2 (5hrs)

Geo 110: Intro to Maps (3hrs)

Geo 111: Intro to Topo Skills (3hrs)

If a teacher new to Geography wanted to strengthen their capabilities, then a superb program would be to build their content knowledge with Geo 141 or 142, followed by deepening their concept understanding with Geo101, and rounding it out with the skills of Geo 110.

All of the courses are great value at \$90, and very flexible.

You can pay for your courses using credit card and start immediately. Alternatively, if you are keen for your school to pay for you, see the instructions on this page:

https://docs.google.com/document/d/1W52M2Z_ZreiDt39Ypaaj3Ph33Zacm1AvgGtKBhUzSiU/edit?usp=sharing.

Registrations for multiple people and multiple courses are also possible using these instructions.

We look forward to seeing you online!

Dr Paul Batten and
Katerina Stojanovski



Dr Paul Batten receives the 2020 PTC NSW Outstanding Professional Service Award



About the Award

This award is made by the Professional Teachers' Council NSW on behalf of an association, in recognition of the voluntary work undertaken by committee members of the association. The award recognises an individual committee member's outstanding professional contribution to education in NSW made through their professional teachers' association.

PTC NSW Vice President, Karen Yager with award recipient Dr Paul Batten

Citation

Dr Paul Batten is an outstanding Geography educator who actively and effectively involves himself in the development of teaching resources and co-ordinates online professional development courses for the Geography Teachers Association of NSW & ACT (GTA NSW&ACT). Dr Batten is also a proactive contributor to the community of Geography educators within and beyond the Association.

Since joining GTA NSW&ACT Council in 2017, Paul has been proactive in suggesting, and been instrumental in enacting, the ways in which technology can be used to enhance the activities and profile of the Association. Paul saw an opportunity for GTA NSW&ACT to develop NESA Accredited online learning courses through the Open Learning platform and volunteered to lead such a project. Paul also volunteered to be involved in the maintenance of the Association webpage and more recently to become one of the administrators for the Facebook page.

Dr Batten contributes immensely to the professional learning program of the Association through his conceptualisation, design, implementation, coordination and monitoring of online learning courses. During 2020, in the uncertain pandemic-related times, several online course participants indicated the accessibility and rigour of the online learning courses for Geography provided much needed stability and reassurance in being able to accrue the necessary hours in a meaningful way.

The online learning courses for Geography commenced with a target audience of those new to teaching Geography. Over time, the online learning courses have been expanded to include a series of 'extension' courses targeted at those who have been teaching Geography for a number of years. Dr Batten also trains and mentors fellow Councillors to work alongside him in the development of online learning courses for Geography.

Within the geography education community more broadly, Paul has demonstrated a sustained contribution to assessment for Stage 6 Geography through his active involvement in the HSC Marking process for Geography. Within the Association, Paul contributed Stage 6 related articles for the Association journal and assisted with the delivery of sessions at a Stage 6 focused conference. Furthermore, Dr Batten makes a point of attending annual events with the Geographical Society of NSW as an avenue for maintaining important links with the community of academic Geographers.

The GTA NSW & ACT Council believe Dr Paul Batten to be a most worthy recipient of the PTC NSW Outstanding Professional Service Award.



John Lewis awarded GTA NSW & ACT Honorary Life Membership

Citation

John Lewis has been a member of the Geography Teachers Association of NSW & ACT (GTA NSW&ACT) Council since 2003. During these 17 years, John freely gave his time and shared his expertise to support the work of the Association; to do so he travelled to Sydney and other areas of NSW as required, from the Central Coast of NSW and more recently from Newcastle. Now in the era of zoom, John still prioritises his attendance at GTA NSW&ACT meetings, events, and planning sessions which often go for several hours.

John is known for his generous and extensive support to many annual events of the Association including:

- the Annual Conference;
- the series of lectures for HSC Exam Preparation in Geography;
- marking of entries for the Arthur Phillip Fieldwork Awards during school- holidays;
- the Arthur Phillip Fieldwork Awards Ceremony; and
- contributing to Reviews of HSC Geography.

At each event, every year, John prefers to work quietly behind the scenes. His ability to monitor the room, anticipate potential issues or areas of concern, and desire to ensure a smooth 'on-the-day' operation for organisers and attendees, results in John taking responsibility for registration and sign-in procedures; proactively liaising with representatives from the Professional Teachers' Council of NSW and GTA NSW&ACT Council to mitigate possible problems; and be available for all set-up and pull-down activities connected with the running of each event. At all times, John demonstrates care for the work of the Association and proactively assists a range of Councillors and Executive to support the work of Geography teachers across NSW and ACT.

Of particular note to the Association is John's contribution to the two-day Annual Conference. His presence and positive, upbeat approach towards completing the necessary yet unglamorous jobs of a Conference have been instrumental to their success. John's main work at the Annual Conference include:

- the 'meet and greet' of conference delegates together with registration of their attendance;
- co-ordinating the distribution of conference resources and presentation of awards whilst ensuring any last-minute adjustments are always accounted for;
- setting up the function room; and
- assisting with all enquiries from conference delegates, invited guests, conference sponsors, and conference venue personnel.

John Lewis awarded GTA NSW & ACT Honorary Life Membership

John's outstanding contribution to conferences and workshops for almost two decades is widely acknowledged by all on Council. Such contribution demonstrates his reliable, professional and service-oriented approach towards geographical education.

Another area of note is John's regular attendance at Council meetings. He always exceeds the minimum expectation of attendance and makes valuable contributions to agenda items under discussion. Furthermore, John confidently presents ideas and opinions about Geography teaching and Association activities; he also ensures important matters and items are not forgotten. John worked closely on the development of the Constitution and the recent name-change procedures which enabled formal recognition of the ACT to be included in the identity of the Association. On several occasions John assisted GTA NSW & ACT in the relocation of premises, for example from Leichhardt to Ashfield, and then from Ashfield to Lidcombe – each move involved the packing, unpacking, sorting, relocation and reorganisation of GTA's office-space and resources. John is a valuable source of information about the GTA NSW & ACT and its work given his long and continuous involvement which means he is often called upon to answer historical questions about the Association.

John's attention to detail, work ethic and good humour have made him a pleasure to work alongside. The length of time he has fulfilled the role of Councillor, along with his level of active involvement is testament to his commitment to the Association overall and the Council of GTA NSW & ACT.

In recognition of his significant and continuous contribution to the Geography Teachers Association of NSW & ACT it is deemed appropriate for John to be awarded the honour of Lifetime Membership to the Association.

The Life Membership Award

The Lifetime Membership award is conferred on members of GTANSW & ACT for their exceptional support, outstanding service and sustained contribution and commitment to the Association and Geography Education more generally.

Members awarded 'Lifetime Membership' have demonstrated, over time, their commitment and contribution to advancing Geography Education through their long-term membership, dedication, involvement and active participation in the GTA NSW & ACT.

The GTA NSW & ACT is appreciative of our Life Members' long-term support and contribution to the Association.

GTA NSW& ACT Life members:

- Dr Susan Bliss
- Dr Grant Kleeman
- Nick Hutchinson
- Barbara Heath
- Paul Alger

2020 Brock Rowe Award recipient Samantha Coburn

Citation

It is not a statement that I make lightly but, Samantha Coburn is the up-and-coming Eddie Woo of Geography. She is one of the co-creators and driving forces behind the extremely successful YouTube Channel – Geography Explained Online. This channel provides instructional videos for both teachers (Primary through to HSC) and students covering aspects of both the Junior and Senior Geography courses – including instructional videos for various geographical skills, video “how to’s” for Senior students addressing past HSC questions as well as other areas of geographical content. These videos have been extremely well received with 5200 + “views” on YouTube worldwide, 820 subscribers, these clips have been watched for over 1100 hours and received 170 positive comments from both Primary and Secondary teachers.



During the Covid-19 pandemic and the consequent difficulties with arranging fieldwork – Samantha collaborated with experts from the Hunter Wetlands to create a virtual fieldtrip. This video is now being used by Hunter Wetlands as a resource and has been accessed by teachers across NSW. This is just one of many examples of the collegiality that Samantha has shown. She created and ran professional learning for teachers in our school concerning the use and application of Google Classroom during our period of “at home” learning. She also provided this learning opportunity to a nearby primary school.

In recognition of her innovation, engagement and expertise Samantha was chosen last year by the DET and Teachers Mutual bank as a Learning Edge Ambassador to mentor other teachers wanting to engage with digital resources. This was an outstanding achievement for someone only in their fifth year of teaching.

It is not only Samantha’s technological ability and innovation which would make her such a worthy recipient of the Brock Rowe award but, also her genuine love and enthusiasm for the teaching and learning of Geography. Samantha’s efforts and ability have seen Geography as a subject at our school grow exponentially. Senior Geography as a subject previously ran possibly once every two years, now we have three HSC classes of enthusiastic and engaged students who love Geography because of the teaching methodologies of Samantha. Overall, these are just some of the attributes that I could mention about this extremely talented young teacher whose passion for the teaching and learning of Geography have, and will, benefit so many students fortunate enough to be taught by her as well as the members of our profession who can learn from her.

It is with great pride that I nominate Samantha for the Geography Teachers Association Brock Rowe Award.

Nominated by Peter West (Head Teacher) and endorsed by Joshua Gane, Principal Maitland Grossman High School

The Brock Rowe Award

The Brock Rowe Award, an award for excellence in teaching geography in schools, is granted jointly by the Councils of the Geography Teachers’ Association of New South Wales and ACT Inc. (GTA NSW & ACT) and the Geographical Society of New South Wales Inc. (GS NSW), annually to persons who have demonstrated consistently, over a period, excellence in the teaching of Geography in schools.

Past Brock Rowe Award recipients:

2018 Glen Halliday

2017 Susan Summerfield

2016 Catherine Donnelly

2015 Sally Egan

2013 Lorraine Chaffer

2006 Sharon McLean

2004 Pam Gregg

2002 David Thomas

1998 Jeffrey Paul Hart

Geoff Conolly Memorial Award

Selection criteria

The Geography Teachers Association of NSW and ACT (GTA NSW&ACT) recognise contributions of significance to the *Geography Bulletin*, journal of the Association. Such contributions are recognised through a peer review process for the prestigious Geoff Conolly Memorial Award.

The Geoff Conolly Memorial Award is presented to an author or authoring team who made an outstanding contribution to the *Geography Bulletin*.

During 2019 and 2020, five contributors were nominated for the Award. Each contributor submitted an article for publication in the journal and the article was published without amendment. A peer review process occurs to identify the author or authoring team who submitted the most meritorious article within a given timeframe.

2020 Award Recipients



Fleur Farah, for her article entitled *Low-cost fieldwork in a pandemic*, published in Volume 52, No 4. 2020, was selected as the meritorious article for 2020. The peer review panel agreed your article was the one of most relevance to teachers of Geography in 2020. The peer review panel were impressed by the quality of the article itself and overall transferability of ideas to different school contexts. Additionally, the panel were also impressed by the:

- clarity of links to the syllabus;
- inclusion of pre-fieldwork activities and post-fieldwork activities;
- clear and achievable instructions about fieldwork and required equipment;
- inclusion of a student workbook; and
- inclusion of an assessment task with marking criteria.



Sharon McLean for her article entitled *Sydney's 'Central District City' a liveable and sustainable city?*, published in Volume 51, No 2. 2019, was selected as the meritorious article for 2020. The peer review panel agreed your article was the one of most relevance to teachers of Geography in 2019. The peer review panel were impressed by the quality of the article itself, its ease of implementation 'as-is', and the overall transferability of ideas to different city or suburb contexts. Additionally, the panel were also impressed by the:

- clarity of links to the syllabus;
- inclusion of pre-fieldwork and post-fieldwork activities;
- sustained use of creative and complex inquiry questions;
- sustained emphasis upon the key concepts of Geography;
- clear and achievable instructions about conduct of the tasks;
- range of supporting tools and resources; and
- emphasis on student focused learning through fieldwork.

GTA NSW & ACT congratulates the award recipients on writing these wonderful articles; which will greatly assist teachers in developing a range of targeted fieldwork activities to suit their local context. Alternatively, teachers will be able to implement the activities using the given place-specific contexts.

2020 Arthur Phillip Awards

David Latimer, Relieving President GTA NSW & ACT

The Brock Rowe Senior Geography Fieldwork Competition is open to all Senior Geography Projects, International Baccalaureate Geography Internal Assessments or a Depth Study of similar size for ACT participants.

Unfortunately, due to the disruptions and restrictions of Covid-19, the Brock Rowe Award was the only category being considered for 2020. However, there were still approximately 60 entries and, as in previous years, they were all of a very high standard.

This year's first prize was awarded to Olivia Mosse. However, all the award recipients were thrilled with their selection. Below are some reflections from Olivia on the process of completing her SGP and the growth she was able to make during her SGP.

Why did you select your chosen topic?

At the time of choosing my SGP, COVID-19 was a contemporary topic (and it still is!). As the coronavirus situation deepened globally and nationally, I was naturally curious about how it would affect people I knew in my local community. At the same time, I was also experiencing the impacts of the virus. I was also interested to see how the initiatives and safety measures that small business owners were practicing to 'flatten the curve' were working and at the same time reveal the effects of isolation on the elderly residents at the aged care facility where I am employed on a casual basis. I knew there would be extensive information to support a project of this size and the subject would be interesting from a range of perspectives.

What did you learn through the project about academic study, yourself and your community?

I learnt that it is important to consult and interpret a large range of information to support your topic. This enables you to make informed decisions and the assessments required to prove or disprove your hypothesis and draw conclusions. By reading a wide range of different source materials, you develop a broader understanding of the matter and can then filter out the most appropriate information for analysis. My Senior Geography Project challenged me to step out of my comfort zone as I had to initiate, prepare and record face-to-face interviews. I also had to seek out a variety of people to complete my survey in order to gain a broad variety of data. Interviewing local business owners and the General Manager of an aged care facility is not something you do everyday, but it helped to develop skills that I will no doubt need for the future beyond school. I also learnt that people are always willing to help if you communicate the value of



Matthew Bailey with Olivia Mosse

what and why you are doing something. Members of my local community were very supportive when I contacted them to be involved in my research. While it was important to share their own stories, it also became evident that businesses were doing what was required to 'survive' the pandemic and support the wider community.

What advice would you give future senior geography students?

To the upcoming senior geography students, my advice would be to choose an area that you are interested in. It makes completing the project more enjoyable and you will be more likely to put in the effort to achieve a great result. I would recommend selecting a topic which is not too broad, as this will make it easier to collect and analyse your data.

It is really important at the start of the project to create a detailed plan and break the assessment down into smaller pieces. It is a large project and it takes a lot of time but you can make it easier by working on it regularly. I would also recommend reading as much as you can about your topic from a range of different source materials, such as local newspapers or the news on TV. Organisation is key. If you plan ahead for primary data collection, such as conducting interviews, you will avoid any last-minute rush. Finally, teachers are there to help so if you have any questions, just ask!

However, 2020 was the last year the prize will be run as the Arthur Phillip Award. Beginning from 2021, GTA NSW & ACT have recreated our geography competition to for the Young Geographer Awards.

Arthur Phillip Awards 2020 Senior Geography Projects

Congratulations to the winners of the 2020 Arthur Phillip Awards! Last year, due to the pandemic, the competition was open only to SGP entries. Yet despite the many restrictions and obstacles imposed by Covid-19, many excellent entries flooded in.

First place

Olivia Mosse, St John's College Woodlawn

Teacher: Matthew Bailey

The impact of Covid-19 on the township of Alstonville

This SGP identifies the risks posed by community transmission of Coronavirus in the ageing population of Alstonville, NSW. It further investigates the local social and economic impacts of the global pandemic and evaluates the strategies implemented by local businesses to reduce public exposure to Covid-19.

Equal Second place

Claire Field, Roseville College

Teacher: Alex Pentz

A study of the impacts of the Empire Marina at Bobbin Head on the surrounding environment

This SGP examined the impacts of the Empire Marina (Bobbin Head) on the surrounding environment through water testing, observation, surveys, interviews, and species identification. The study also investigated the ways in which the marina was used, and the effectiveness of management strategies that had been implemented by the local council to reduce environmental impacts.



LEFT: Claire Field, Erin Bortz & Alex Pentz



ABOVE: Drew Collin & Chantelle Pepper



LEFT: Ahmed Hassabalnaby

Chantelle Pepper, Newcastle Grammar School

Teacher: Drew Collins

Stockton Beach Erosion and Surrounds

This report is based upon a field investigation of the impacts of the establishment of the construction of breakwaters and a deep-water channel at the Port of Newcastle, the world's largest coal export port. In particular, this report focuses on the direct effects of the erosion at Stockton Beach, as well as the impacts on the social and economic structure of the local community. The erosion of Stockton Beach has had detrimental impacts on the surrounding area, and these have been felt by the community the most.

The local beach once served as a family location, in particular for surfing, fishing, and swimming. However, until now, the residents that live there are in danger, and the businesses which once thrived along the foreshore have been forced to close due to the devastating erosion of Stockton Beach.

Equal Third place

Erin Bortz, Roseville College

Teacher: Alex Pentz

A study of the impacts of young families on St Ives

This study seeks to investigate the changing demographics of St Ives, the impacts it is having on current residents and facilities and the plans proposed or implemented to manage the challenges associated with population change.

Ahmed Hassabalnaby, Hills Grammar

Teacher: Grace Larobina

A Study of the Water Quality in Sydney Harbour

An exploration of the water quality in Sydney Harbour comparing sites that are exceeding water quality standards.

Highly Commended

Jayden Walsh, Edmund Rice College

Teacher: Steve Sunderland

The Purrungully Woodland

An investigation on the abundance of rainforest species in Purrungully Woodland

ANNOUNCING

The 2021 GTA NSW & ACT Young Geographer Awards

The Young Geographer Awards invites students in NSW and the ACT to demonstrate engagement with Geography, the discipline and with the tools and skills of Geography through the creation and conduct of an inquiry-based research project. Although it is not essential, teachers are encouraged to incorporate the research and construction of the project into their teaching programs to help support students.

Prizes for the winning entries in the Young Geographer
Award prizes, in any category are:



First Prize \$500



Second Prize \$250



Third Prize \$100

FOR MORE DETAILS CLICK HERE

The 2020 HSC Geography Examination Results

The Geography Teachers' Association of NSW & ACT recognises the achievement of the state's top HSC students and teachers of 2020.

Each year the GTA NSW & ACT publishes the top 10 students in the HSC Geography Examination and their teachers. Normally, they would be presented awards during the annual conference.

Due to Covid 19 this was not possible as there was no awards ceremony in 2020 and 2021 for students. We would like to belatedly congratulate the students and their teachers for their outstanding achievement.

FIRST PLACE

Serena Catherine Pek
Hornsby Girls High School
Teacher: Debra Black

SECOND PLACE

Noah Gong
Sydney Grammar School
Teacher: Brett Marturia

THIRD PLACE

David De Vecchis
St Gregory's College Campbelltown
Teacher: Lucy Martin

FOURTH PLACE

Thomas Michael Aalders
St Ignatius' College
Teacher: Peter Steffan

FIFTH PLACE

Brendan Tate
Caringbah High School
Teacher: Jack Bell

SIXTH PLACE

Laura Penn
Arden Anglican School
Teacher: Karen Moss

SEVENTH PLACE

Max Harper
Sydney Grammar School
Teacher: Brett Marturia

EIGHTH PLACE

Allen Lei
Sydney Grammar School
Teacher: Catherine Naghten

NINTH PLACE

Simon Males
Sydney Grammar School
Teacher: Shona Newall

TENTH PLACE

Simonie Jenkins
Pymble Ladies' College
Teacher: Liam Hume

GTA NSW & ACT RESOURCES



The Geography Teachers' Association of NSW & ACT

GEOGRAPHY 2021 HSC EXAM PREPARATION FOR YEAR 12 STUDENTS & TEACHERS

GTA NSW & ACT has traditionally organised revision lectures for HSC Geography students and their teachers. In 2021 schools will be offered a repeat of the Digital Package produced in 2020 (minor revisions made) with a 2021 Supplement of new and updated materials.

The package consists of pre-recorded videos and support materials. Teachers can use the materials with their HSC classes, irrespective of the number of enrolled students.

- Recommended for tutorial and in class revision / teacher led revision.
- Transfer key ideas from illustrative examples and case studies to your own studies*
- Not to be used for private tutoring purposes.
- Streamed directly from Vimeo and not downloadable.
- Support materials downloadable from a Google Drive Folder.

CONTENTS:

MAIN PACKAGE	2021 SUPPLEMENT
Ecosystems at Risk – EAR Part 1 & Part 2 using illustrative ex- amples. Lorraine Chaffer	EAR: Know your case studies – through the lens of a study of the Great Barrier Reef. Matt Carroll
	HSC Question Drop EAR / EAR Matt Carroll
People and Economic Activity with a focus on Global Tourism. Dr Grant Kleeman	PEA: Investigating an Economic Enterprise – through the lens of a study of Tamburlaine winery Matt Carroll
People and Economic Activity – General syllabus overview and advice. Lorraine Chaffer	Economic Activity Update: Global Tourism in the age of COVID-19 Dr Grant Kleeman
Urban Places Karen Bowden	Section III – Hitting the band descriptors Alexandria Warnock
HSC Geographic Tools and Skills Sharon McLean	Effective use of fieldwork. Making your fieldwork count. Grace Larobina
	Know your fieldwork tools and skills cards Lorraine Chaffer
Student workbooks for: <ul style="list-style-type: none">– EAR, PEA, Urban Places– Skills and tools.	Checklist: On the road to the Trial HSC Extended response templates Catherine Donnelly

***NOTE: In 2020, feedback from students using the resource independently clearly showed that the ability to apply concepts and ideas from a case study they had not done was a missed opportunity for higher order thinking and application of knowledge. Many students responded that such examples did not apply to them – that these were irrelevant.**

See over for cost and payment...



The Geography Teachers' Association of NSW & ACT

GEOGRAPHY 2021 HSC EXAM PREPARATION FOR YEAR 12 STUDENTS & TEACHERS

ACCESS:

The package will be available from Friday 11 June until Tuesday 2 November – the day of the HSC Geography Exam.

The teacher(s) who completes the registration will be provided with the download details once payment has been received.

NOTE: ACCESS INFORMATION IS NOT TO BE SHARED WITH STUDENTS

COST:

Main Package plus 2021 Supplement –

- **\$250** plus GST – **Members (school or personal)**
- **\$350** plus GST – **Non-members**

2021 Supplement ONLY –

- **\$60** plus GST – **Member schools**
- **\$120** plus GST – **Non-members**

NOTE: THE SUPPLEMENT IS FOR THOSE SCHOOLS WHO WERE ABLE TO DOWNLOAD THE 2020 PACKAGE TO THEIR SCHOOL NETWORK FOR STUDENTS TO ACCESS INDEPENDENTLY. THIS FEATURE IS NOT OFFERED IN 2021.

BENEFIT:

Although created for students in Year 12, teachers new to teaching Stage 6 and currently teaching Year 11 could benefit from a good overview of the Year 12 topics and the advice from presenters covered in this package.

Schools with less than FIVE HSC Geography students, please contact GTA NSW & ACT for consideration of a special rate at a cost per student.

ORDER AND PAY HERE

Phone: (02) 9716 0378 • Email: gta.admin@ptc.nsw.edu.au • www.gtansw.org.au • PO Box 699 Lidcombe 1825

NATIONAL CONFERENCE



GTA NSW & ACT is offering several scholarships for teachers to attend the AGTA Biennial Conference. Find out more...[CLICK HERE](#)

Plan ahead for an amazing national conference you will not want to miss!

The next AGTA Conference will be held at the Crowne Plaza in Hobart, Tasmania. With many opportunities for pre- and post-conference activities the destination will attract many attendees from all parts of Australia.

AGTA 2021 Conference – Keynote Speakers

Dr Shane Gould



Shane Gould is a national living treasure and swimming sports legend, the only person to hold all five freestyle world records simultaneously. She won five individual medals at the 1972 Munich Olympic Games. Shane is a lifelong learner.

Shane's masters degree thesis in Environmental Management (UTAS 2010) was a place themed study, examining swimming pools as a public space and an outdoor classroom and playground. Her favourite subject at school was geography, because she had a teacher who introduced the concepts of ecosystems. This understanding of how the natural world works then laid the basis for environmental actions of living simply for 30 years in Margaret River in 1976–2006 going 'back to the land', one of the historical waves of the environmental movement.

She completed a PhD in Australian swimming culture at Victoria University in 2019. Shane's research involved qualitative research methods, weaving social-environmental systems concepts into her cultural study. One chapter was about sensory nature-engagement in blue space with her wild ocean swimming buddies.

Simon Kuestenmacher



Simon is a Director and Co-Founder of The Demographics Group which is headed by Bernard Salt. The group provides specialist advice on demographic, consumer and social trends for business. Simon speaks two languages; has a Bachelor in Geography from Humboldt University in

Berlin and a Master of Urban Geography from Melbourne University; he writes a column in *The Australian* and is a media commentator on demographic and data matters.

Simon has presented to numerous corporate and industry audiences across Australia and overseas on demographic trends, consumer insights and cultural change in Australia. His work is appreciated by groups from the financial services, property, government, education, technology, retail and professional services industries, among others.

In his spare time Simon runs what is by now the world's largest Twitter account dedicated to maps and data. In the space of four years he has amassed 200,000 global followers, reaches over 25 million people every month and ranks as one of the world's Top 10 influencers in data visualisation. Follow - [Twitter@SimonGerman600](#).

AGTA 2021 Conference registrations are now open

Conference registration

The full registration fee is all inclusive of the three-day conference, welcome drinks on the night of Tuesday 28th September and the gala dinner on Thursday 30th September. Early bird tickets, are now available until Friday 30th July 2021.

Further information and updates from [AGTA 2021](#)

Registration costs

The full registration early bird rate is \$750. After early bird closes the rate will be \$850.

Day registration is available for \$300, excluding social functions, which can be booked separately.

Student registration is \$500, University and Student ID is required to secure this rate



The Geography Teachers' Association of NSW & ACT

GEOGRAPHY POSTERS FOR SALE

GTA NSW & ACT has printed a number of infographic posters for classroom use.

Posters are linked to topics studied in Geography K–12 for the Australian Curriculum and NSW Syllabuses.

- A **bank of questions** for individual and groupwork will be accessible via Google Drive to all schools /teachers purchasing posters.
- Posters can be purchased in **pre-packaged sets** or as **individual posters**.
- **New posters** will be added to the website throughout the year.

SOURCES AND PRICING

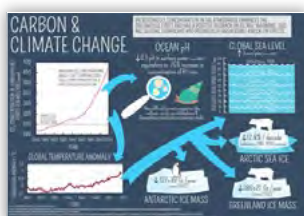
Posters have been sourced from organisations including the Geological Society (UK), Visual Capitalist and Graphic News. GTA NSW & ACT has also commissioned some posters. Posters are being sold in sets of 4 or 5 to make postage viable. Affordability was a key consideration when determining pricing. Administration, printing and distribution, licensing and design costs where relevant are incorporated into the cost of each pack. Postage includes the cost of cylinders. A maximum of 5 posters will be packaged in any postage cylinder.

PACK 1: THE CARBON CYCLE – \$70 includes p/h

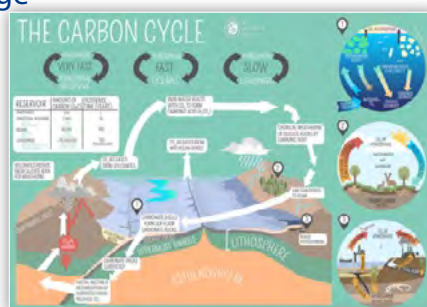
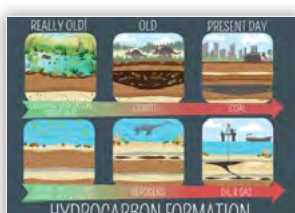
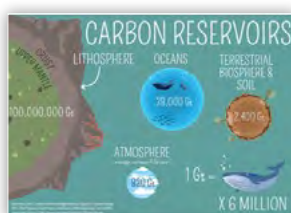
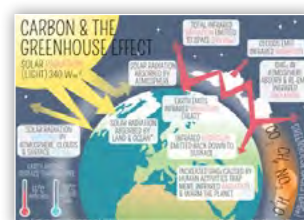
Contents:

- 1 x A1 poster: **The Carbon Cycle**
- 4 x A2 posters: **Carbon Set**

Click here to order Pack 1

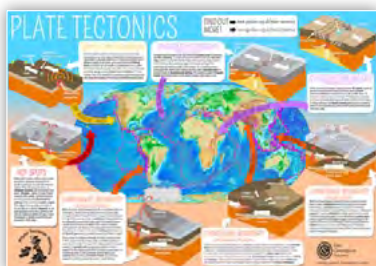


- Carbon & the Greenhouse Effect
- Carbon Reservoirs
- Hydrocarbon Formation
- Carbon & Climate Change

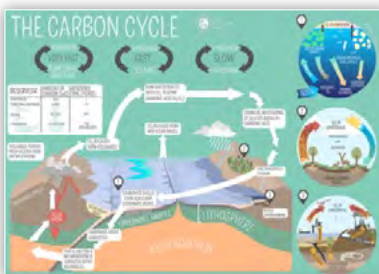


PACK 2: GEOGRAPHY CONTENT – \$81 includes p/h

Contents: 4 x A1 posters



- Plate tectonics
- Minerals in a smartphone
- The Carbon Cycle
- On the Brink: The biggest threats to Earth's biodiversity



Pathways with Geography

[Click here to order Pack 3](#)



About the poster sizes –

A1 = 594mm X 841mm

A2 = 420mm X 594mm

INDIVIDUAL SELECTION: A1 sized posters @ \$15 per poster
(one type per order)

Up to 5 posters \$15 postage (1 cylinder)

5 to 10 posters \$30 postage (2 cylinders) etc

Choose from posters:

- Plate tectonics
- Minerals in a smartphone
- The Carbon Cycle

For more details and to order follow this [LINK](#)

www.gtansw.org.au • gta.admin@ptc.nsw.edu.au • 02 9716 0378

GEOGRAPHY POSTERS FOR SALE

INDIVIDUAL SELECTION: A1 & 60cm square posters @ \$15 per poster (one type per order)

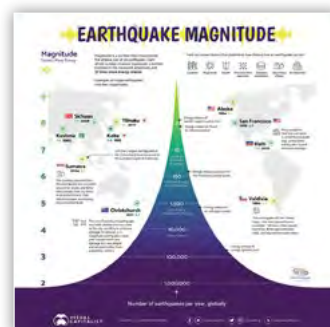


Up to 5 posters \$15 postage (1 cylinder)
5 to 10 posters \$30 postage (2 cylinders)

Choose from posters:

- Biomes and Ecosystems (A1 size)
- Earth's surface
- Earthquakes
- UN Sustainable development goals

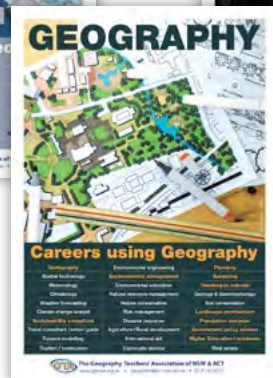
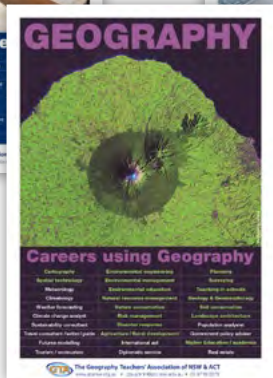
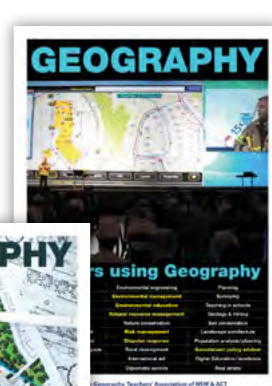
PACK 4: Three square posters – \$55 includes p/h [Click here to order Pack 4](#)



PACK 5: GEOGRAPHY CAREERS– \$35 includes p/h*

A set of five x A3 Careers Using Geography flyers

[Click here to order Pack 5](#)



* Note: Pack 5 will be mailed as a flat pack

For more details and to order follow this [LINK](#)

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Joint Select Committee on Constitutional Recognition. Source: https://www.patrickdodson.com.au/joint_select_committee_on_constitutional_recognition_-_interim_report

A framework for learning about Aboriginal and Torres Strait Islanders in the Geography classroom

Martin Pluss, Northholm Grammar School

martinpluss@gmail.com | Twitter: @plu

Introduction

In my case, teaching Aboriginal and Torres Strait Islanders' issues is one of the more difficult things I do as an educator. I find this to be the case because I am a non-aboriginal person and I continue to learn how to approach these discussions in the classroom.

It is difficult to navigate the issues of past from the present. I am rarely confident in the most appropriate language to use – Aboriginal, Indigenous or First Nations peoples and in what context. I have to continually work on detaching opinion from identity.

On what basis can we suggest rectification of past injustices and make suggestions on current strategies? Is it valid for me to do this if I have no direct experience? How do I balance and encourage the voice of our students and the voice of Aboriginal Australians?

The Framework

Answers to these questions bring me back to one of my roles as a teacher in building awareness, knowledge and understanding. I am going to suggest a three prong strategy on how to address teaching and learning in the area of First Nations people.

1. Perspective through awareness

My deficient understanding of First Nations people in Australia is due to my lack of awareness. My minimal awareness of Aboriginal issues has come from my lack of formal education concerning Aboriginal peoples, though I had some experience as a child visiting Aboriginal communities in western NSW.

More formally, I completed a Masters in Nonformal Education in Asia and the Pacific focussing on First Nations peoples but sadly Aboriginal Australia was not part of the research focus. I worked in a school which had a program for Aboriginal and Torres Strait Islander students, had many discussions with a friend who worked in a school in Lajamanu for four years, helped facilitate an educational program for an NRL club for their young players many of whom were Aboriginal and had the opportunity for a decade to be part of an Aboriginal outreach program on the coastal and Atherton tableland areas of Far North Queensland.

I still feel my awareness is inadequate and I believe is shaped by a colonial perspective. I have come to challenge this perspective I have developed through my education. In my view, when teaching in this area I felt the need to address my awareness and perspectives on the issues prior to actually facilitating student learning so as to assure I was balanced and responsible in my approach.

2. Story-telling as the basis for knowledge

The next step for me was to challenge my perspective by building a knowledge base to improve my understanding of the issues. I soon found out that reading articles and books on the issues only touch the surface. There were so many perspectives and often discussions were sometimes emotive and occasionally views expressed that were not well informed. I soon discovered that the best way to get knowledge is through the process of story-telling with Aboriginal people.

There are two reasons for this. One, the information is authentically gathered, and the other is that story telling is at the core of Aboriginal community culture.

Story-telling became for me story-showing where I built up my knowledge of the issues by listening and observing. As a non-Aboriginal person living and working in suburbs with limited exposure to Aboriginal people I was not getting the whole story.

I sought to seek out Aboriginal people, to hear their voice and backed this up by engaging with indigenous authors and researchers.

3. Understanding through engagement

Despite a reasonable effort my understanding of the issues from the perspective of the Aboriginal community is woefully limited. The breakthrough to my improved understanding happened in 2018. I decided to make a submission to the *Joint Select Committee on Constitutional Recognition* relating to Aboriginal and Torres Strait Islander Peoples which was published in November 2018.

I engaged with a cause, though when I started, I had a lot of learning to do.

My submission was Number 400 of almost 500 submissions. I found the process very challenging and rewarding. As I engaged with the process, I improved my awareness and knowledge, and my understanding was gradually improving.

There were also a series of public hearings throughout the country and one occurred in the holidays on the Friday 5 October 2018 at the Aboriginal Centre for Excellence at Redfern. I attended. I sat at the back and learnt more there than I could have learnt from books, articles and research papers but still short of direct experience. It was a bi-partisan committee made of up Joint Chairs Patrick Dobson, Julian Leeser and the committee members in attendance were Lindy Turney, Linda McGowan.

My local member and Joint Chair Julian Lesser noted my presence and asked if I wished to make a public comment based on my submission. I took up the offer and made some comments. The following comments I made appeared in the Report in the section on Truth-telling in Schools.

The Committee acknowledges that for some submitters, learning more accurate history improved their understanding. For example, Mr Martin Pluss told the Committee:

I must admit, from my personal perspective, I thought they [dreamtime stories] were not real when I was a schoolkid in my education. I found that Port Phillip Bay has a depth of 30 metres below sea level. For 60,000 years stories have been told, and there is geological and archaeological evidence now that when the Dreamtime stories of that area of Victoria were told they were talking about a valley that existed there. That's been passed down through Dreamtime stories through the years. For me, that was significant for the basis of truth-telling. As a non-Indigenous person, that enables me to understand the legitimacy and the background behind how the voice can be authentic.⁵⁵

FIRST NATIONS PEOPLES

Inspired and consistent with my advocacy for local geography, I started to investigate and meet First Nations people in the Hornsby Shire where I live and teach. According to the 2016 census data there are 49 males and 49 female Aboriginal and Torres Strait Islander peoples in Hornsby compared to 107, 368 and 108, 809 males and females in NSW and 322, 171 and 326, 996 respectively in Australia.

Through my research my engagement moved to another level. I noted that a Hornsby Area Residents for Reconciliation had made a submission to the Joint Parliamentary Inquiry. So, I followed them up.

This led me to discover the Hornsby Aboriginal & Torres Strait Islander Advisory Committee of Hornsby Council. I was fortunate to have the opportunity to be an observer at a couple of their meetings.

Soon I met local Aboriginal academic and other Aboriginal community members. Two of us discussed our respective involvement as Aboriginal and non-Aboriginal local community members on the local community radio station Triple H 100.1 FM's Streetbeat program. Specifically, we outlined our submissions to the parliamentary inquiry. Over time we facilitated guest speakers at schools.

Also, the local academic(s), myself and other community members made submissions to Hornsby Council concerning their First Nation peoples initiatives in the Shire. These included decisions on appropriate wording of Welcome /Acknowledgment of Country in Hornsby Meetings, the addition of Aboriginal signage in locations throughout the shire and other plans in place to build awareness and knowledge in the local community.

It was in the process of story-telling with local Indigenous community members and elders that I have been able to build my students' awareness and knowledge of the issues affecting the local Aboriginal community and some of the broader national discussion points. My next step is to build understanding through engagement for the students themselves as I have benefited from this myself. My starting point will be to encourage students to address their local council on indigenous initiatives.

What follows is a series of activities to build awareness knowledge an understanding of the Constitutional Recognition discussion that is been carried out in the local, regional and national community.



Joint Select Committee on Constitutional Recognition for Aboriginal and Torres Strait Islander People tabled its final report (2018). Source: https://www.patrickdodson.com.au/joint_select_committee

Activities based on Constitutional Recognition

Joint Select Committee on Constitutional Recognition Relating to Aboriginal and Torres Strait Islander Peoples – <https://www.aph.gov.au/constitutionalrecognition>

Activity 1

This activity is based on the submissions to Joint Select Committee on Constitutional Recognition Relating to Aboriginal and Torres Strait Islander Peoples – https://www.aph.gov.au/Parliamentary_Business/Committees/Joint/Former_Committees/Constitutional_Recognition_2018/ConstRecognition/Submissions

On 19 March 2018, the Parliament agreed that a Joint Select Committee on Constitutional Recognition relating to Aboriginal and Torres Strait Islander Peoples to examine matters relating to constitutional change, including the proposal for the establishment of a First Nations Voice.

The Committee also considered the proposals for truth-telling and agreement making arising from the

Statement from the Heart, as well as other proposals for constitutional change and recognition.

By far the majority of the submissions were made by individuals and I would encourage you to look at these individual names and selectively see the trends, there are submissions from academics to members of the general public. There does not seem to be representation of student voices and perhaps this is something we could work on for the classroom.

At the very least this activity is designed to develop an awareness of the different perspectives of groups that made submissions. Table 1 provides a summary of a selection of submissions.

Table 1 Joint Select Committee Public Submissions

Joint Select Committee on Constitutional Recognition Relating to Aboriginal and Torres Strait Islander Peoples	
Number 5 Public Affairs Commission (PAC) of the Anglican Church of Australia (ACA)	Number 200 Richmond Branch of the Australian Labor Party (Victorian Branch)
Number 79 Walter and Eliza Hall Institute of Medical Research (WEHI)	Number 206 Technical Advisers: Regional Dialogues and Uluru First Nations Constitutional Convention
Number 80 Students of the University of Melbourne Law School	Number 214 Collingwood Country Women's Association
Number 99 Trinity College, the University of Melbourne	Number 215 EcoFeminist Fridays
Number 100 World Vision	Number 224 Cape York Institute
Number 104 Animals Defenders Office	Number 257 Humanist Society of Victoria Inc
Number 107 Goulburn Broken Catchment Authority	Number 270 Val Gleeson, Wangaratta Historical Society
Number 118 Royal Australian & New Zealand College of Psychiatrists	Number 289 Centre for Comparative Constitutional Studies
Number 119 Catholic Education Office Ballarat	Number 292 National Congress of Australia's First Peoples
Number 120 Balmain Tigers Australian Football Club	Number 301 NSW Reconciliation Council
Number 121 Maurice Blackburn Lawyers	Number 310 Victorian Aboriginal Child Care Agency
Number 131 Uniting Church in Australia Assembly & Uniting Aboriginal and Islander Christian Congress	Number 328 Mornington Peninsula Human Rights Group
Number 135 The Indigenous Settler Relations Collaboration, University of Melbourne	Number 338 Indigenous Peoples Organisation
Number 147 Australian Republican Movement	Number 343 Aboriginal Child, Family and Community Care State Secretariat (AbSec)
Number 172 Uphold & Recognise	Number 345 Foundation for Aboriginal and Islander Research Action (FAIRA)
Number 198 Bass Coast South Gippsland Reconciliation Group	Number 355 Business Council of Australia
	Number 356 Aboriginal Peak Organisations of the Northern Territory
	Number 361 Boroondara Reconciliation Network

Joint Select Committee on Constitutional Recognition Relating to Aboriginal and Torres Strait Islander Peoples

Number 363 Kimberley Land Council and KRED Enterprises	Number 413 Shepparton Region Reconciliation Group (SRRG)
Number 373 National Aboriginal Community Controlled Health Organisation (NACCHO)	Number 415 Federation of Ethnic Communities' Councils of Australia (FECCA)
Number 377 UNICEF Australia	Number 417 NSW Council for Civil Liberties
Number 378 Apmer Aharreng-arenykenh Agknanenty Aboriginal Corporation	Number 419 Prime Minister's Indigenous Advisory Council
Number 378 CASSE Australia	Number 423 Uphold & Recognise and PM Glynn Institute, Australian Catholic University
Number 380 KALACC	Number 428 Hornsby Area Residents for Reconciliation
Number 382 Department of the Prime Minister and Cabinet	Number 444 Sydney Students for an Indigenous Voice
Number 383 Shire of Wyndham East Kimberley	Number 460 Torres Shire Council
Number 384 Caritas Australia	Number 461 Torres Strait Regional Authority
Number 385 Maroondah Movement for Reconciliation Inc	Number 467 Reconciliation Tasmania
Number 386 NSW Aboriginal Land Council	Number 470 Catholic Justice & Peace Commission of the Archdiocese of Brisbane
Number 389 Reconciliation WA	Number 473 Mosman Reconciliation
Number 394 Australian Human Rights Commission	Number 474 Womens' Reconciliation Network
Number 396 Australian Local Government Association	Number 475 Reconciliation South Australia
Number 407 Australian Indigenous Governance Institute	Number 476 Reconciliation NSW
	Number 478 Sunshine Coast Reconciliation Group

Tasks

- Group the submissions into themes such as health organisations, legal bodies, local community groups, reconciliation collectives, Aboriginal organisations, government bodies, church organisations, higher education etc. Also, if you go through the original link you can also group together submissions by academics which are easily identifiable by their titles in the submission. As a starting point I would get the students to highlight related groups of submissions in Table 1. This can then be organised by a class discussion or a mind map on the white board or through a suitable digital platform.
- The next step is for the students to identify five groups of submissions on which they would be prepared to undertake further research. They should justify their choice by answering the following questions.
 - Why do these groups stand out above the other groups?
 - What groups did not make submission? Suggest reasons why?
 - Are there any individual submissions that would be worthy of inclusion but do not fall into the grouping?
- Following this break the class into five groups and allocate a thematic group of submissions for them to research. In the group work they need to do the following research and divide the responsibilities among each group member. Use Table 2 as a framework for the groups to follow.
 - Research the background of the constitutional recognition movement through the development of a timeline thought to most recently with the Statement of the Heart.
 - Identify the perspective presented by the group of submissions. For example, are they are supportive or not of constitutional recognition?
 - Highlight the basics of their argument and possible suggested strategies.
 - Select two specific submissions and evaluate how effective the submission was in supporting their viewpoints. As a group come to a conclusion if they are supportive or not of the submission's conclusions.

FIRST NATIONS PEOPLES

Table 2: Group Theme

e.g., Reconciliation groups' submission, government groups' submission Aboriginal community groups' submission ...	
Background research	
Identified perspective	
Basis of argument	
Evaluation of two submissions	

Activity 2: Media and Constitutional Recognition

There are a number of perspectives presented in the media. It is important for the students to make informed judgments based on an evaluation of what they read in the media.

Consider the following six articles. They have been selected from six different sources and exclude the media articles which are behind paywall. If teachers have access to such articles it would worthwhile bringing them into the list and provide a pdf in order to get all perspectives. Ask each student to fill in the following table for each article in relation to the related constitutional recognition article.

Article 1: An Indigenous 'Voice' must be enshrined in our Constitution. Here's why – <https://newsroom.unsw.edu.au/news/general/indigenous-voice-must-be-enshrined-our-constitution-heres-why>

Article 2: Indigenous constitutional referendum 'unlikely' before the next election, Minister says – <https://www.abc.net.au/news/2020-06-12/ken-wyatt-says-constitutional-recognition-referendum-unlikely/12350320>

Article 3: There are many ways to achieve Indigenous recognition in the constitution – we must find one we can agree on – <https://theconversation.com/there-are-many-ways-to-achieve-indigenous-recognition-in-the-constitution-we-must-find-one-we-can-agree-on-142163>

Article 4: Walk the talks – <https://nit.com.au/walk-the-talks/>

Article 5: A one-syllable change to the anthem is hardly something to celebrate – <https://www.canberratimes.com.au/story/7072676/a-one-syllable-change-to-the-anthem-is-hardly-something-to-celebrate/>

Article 6: Aboriginal leaders are ANGRY that the Greens have chosen an indigenous senator who walked out of constitutional recognition talks – <https://www.dailymail.co.uk/news/article-8465117/Aboriginal-Indigenous-leaders-ANGRY-Greens-Lidia-Thorpe-divisive-views-constitutional-recognition.html>

Table 3 Media Analysis of Constitutional Recognition

Article	Source	Title	Summary of main facts	Identify Perspectives	Alternate Perspectives
Article 1					
Article 2					
Article 3					
Article 4					
Article 5					
Article 6					

FIRST NATIONS PEOPLES



Uluru Statement from the Heart (2017) Source: <https://ulurustatement.org/>

Conclusion

From the perspective of a non-aboriginal person, who has worked in schools with limited exposure to Aboriginal and Torres Strait Islanders peoples experiences, I have discovered that stepping students through the awareness, knowledge and understanding framework is a worthwhile strategy, supplemented with a focus on authentic story-telling and local community engagement.

It is very difficult to walk in the shoes of other people let alone comment on their experiences from the outside looking in. The approach adopted here is to encourage our students to be more like a researcher building awareness, gathering information, sorting and classifying the ideas of people, and if possible, engage with Aboriginal and Torres Strait Islander Peoples to gain authentic understanding.



Image source: Final report of the Joint Select Committee on Constitutional Recognition (2018) – https://1.wp.com/nacchocommunique.com/wp-content/uploads/2018/11/333v1021_page_1.jpg?ssl=1



Image Source: <https://nacchocommunique.com/2018/11/30/naccho-aboriginal-health-ulurustatement-statementfromtheheart-firstnationsvoice-final-report-of-the-joint-select-committee-on-constitutional-recognition/>

VALUE OF LAND

Rebecca Sutcliffe, Waverley College



IMAGE SOURCE: Wikimedia Commons – [https://commons.wikimedia.org/wiki/File:Uluru%E1%B9%9Fu_\(Ayers_Rock\)_Sunset.jpg](https://commons.wikimedia.org/wiki/File:Uluru%E1%B9%9Fu_(Ayers_Rock)_Sunset.jpg)

Students will investigate the aesthetic, cultural, spiritual and economic value of landscapes and landforms for people, including Aboriginal and Torres Strait Islander Peoples

- Explain the aesthetic value of landscapes and landforms to culture and identity
- Describe the cultural and spiritual value of landscapes or landforms in different places

TASK

The class is to watch ‘10 Incredible Geological Formations’ – <https://youtu.be/eTI1uG8TVhw>

As a class, discuss and brainstorm the differences of these geological formations. Ask a student to write the notes on the board in the form of a mind map. The centre being ‘Geological Formations’ then each arm to be categorised by:

- Global location
- Size
- Shape
- Colour
- Type of rock
- Processes e.g. weathering / erosion

All students will copy this down into their workbooks (or using an online mind map tool).

All students are asked to reflect on what the mind map shows. Are there any patterns? Are geological formations the same? Or do they differ? Ask them to elaborate on their responses.

You are looking for students to notice how geological formations differ greatly across all categories. State the reason for this as being due to the location and type of rock. Further reasons could include climate – more erosion from wind, water, ice, plants due to the climate.

Ask students to choose their number one from the list below and to justify why this is their favourite. Students should use their own research to gather more information on these formations.

- Wave Rock – Australia
- The Stone Forest – China
- Eye of the Sahara – Mauritania
- Chocolate Hills – Philippines
- Queen’s Head – Taiwan
- Devil’s Tower – USA
- The Fairy Chimneys - Turkey
- The Wave - USA
- Pamukkale - Turkey
- Danxia Landform – China

We are looking to see the reasons they pick their number one. What value have they placed on it? Aesthetic, cultural, spiritual or economic. The likelihood is aesthetic - what they see and how attractive/interesting it makes that formation.

Now we are going to look at what the terms aesthetic, cultural and spiritual, and economic mean with regards to the value of land.

FIRST NATIONS PEOPLES

Ask students to write down the four terms in their workbooks.

Ask the class if they know the definitions of these terms.

Together create a definition for all four terms. Students are to write these definitions next to the terms.

We are aiming for each student to have written down a definition for all four terms ensuring they understand their meaning.

CASE STUDY: THE GREAT BARRIER REEF



Google Stock Image

As a class watch these videos which provide information on the value of the Great Barrier Reef.

- Beautiful underwater nature (4 minutes)
<https://youtu.be/3Gioc3QAJ7s>
- Our stories are connected to the Reef (3 minutes)
https://youtu.be/lr1Zx2ZQ_WA
- The economic, social and icon value of the Great Barrier Reef (3 minutes) https://youtu.be/C_64F49X5cU

After each video, discuss how each video identified the value of land. Students take notes.

Discuss with students the importance of cultural and spiritual value and how it may differ to modern day values.

The Great Barrier Reef – Indigenous Value (cultural and spiritual value of land)

This task asks students to produce an infographic that can be used to promote the Indigenous value of the Great Barrier Reef.

Using the online Canva tool www.canva.com, select the infographic template to get started.

Alternatively, students can hand draw or use any other online tool to create the infographic/poster.

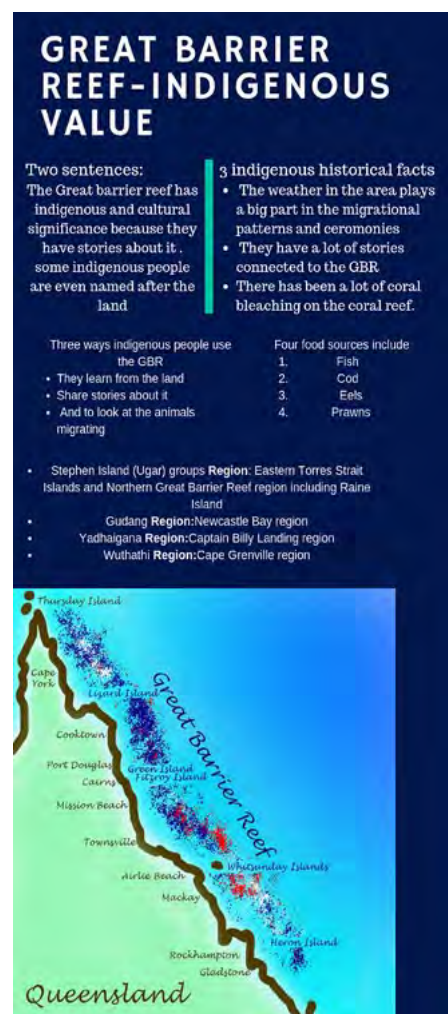
TASK

1. Create an infographic like the one below.
2. Using the videos watched, this link

<http://www.gbrmpa.gov.au/our-partners/traditional-owners>, and your own research, include the following in your infographic:

- a. Title: *The Great Barrier Reef – Indigenous Value*
- b. A map of the area
- c. TWO sentences on the cultural AND spiritual significance of the Great Barrier Reef to Indigenous Peoples
- d. Include at least THREE key Indigenous historical facts about the Great Barrier Reef
- e. Include the Nation and Clan names for each of the areas – providing the current name given and its Indigenous name
- f. Include at least THREE ways Indigenous Peoples used and still use the GBR
- g. Include at least FOUR different types of food sources the GBR provides Indigenous Peoples.

Student example below:



Suggested time 2 x 50 min lessons all depending on the ability of the class. An extra lesson can be given to allow students more time to research and complete the infographic.

FIRST NATION PEOPLES

KANYINI

The Kuniya Walk near Mutjulu Waterhole. Image Source: <https://parksaustralia.gov.au/uluru/do/walks/kuniya-walk/>

Human Wellbeing

**Grace Larobina, GTA NSW & ACT Councillor,
Head of Geography, Hills Grammar School**

INTRODUCTION

Kanyini (2006) – <https://vimeo.com/292549994>

Kanyini Study Guide – <https://theeducationshop.com.au/downloads/atom-study-guides/kanyini-atom-study-guide/>

SYLLABUS

- HUMAN WELLBEING IN AUSTRALIA
- IMPROVING HUMAN WELLBEING

AIM Using a variety of Visible Thinking Strategies [VTS] to explore human wellbeing.

Before watching *Kanyini*

TASK 1: Read the following information taken from the Kanyini Study Guide and select what you think is the essential SENTENCE - PHRASE - WORD

Kanyini is a story told by an Aboriginal man, Bob Randall, who lives beside the world's greatest monolith, Uluru, in central Australia. Based on Bob's own personal journey and the wisdom he learnt from the old people living in the bush, Bob tells the tale of why Indigenous people are now struggling in a modern world and what needs to be done for them to move forward. A tale of Indigenous wisdom clashing against materialist notions of progress, this is not only a story of one man and his people but the story of the human race.

Kanyini is a Pitjantjatjara word meaning: Interconnectedness; to care for, to support, to nurture and protect.

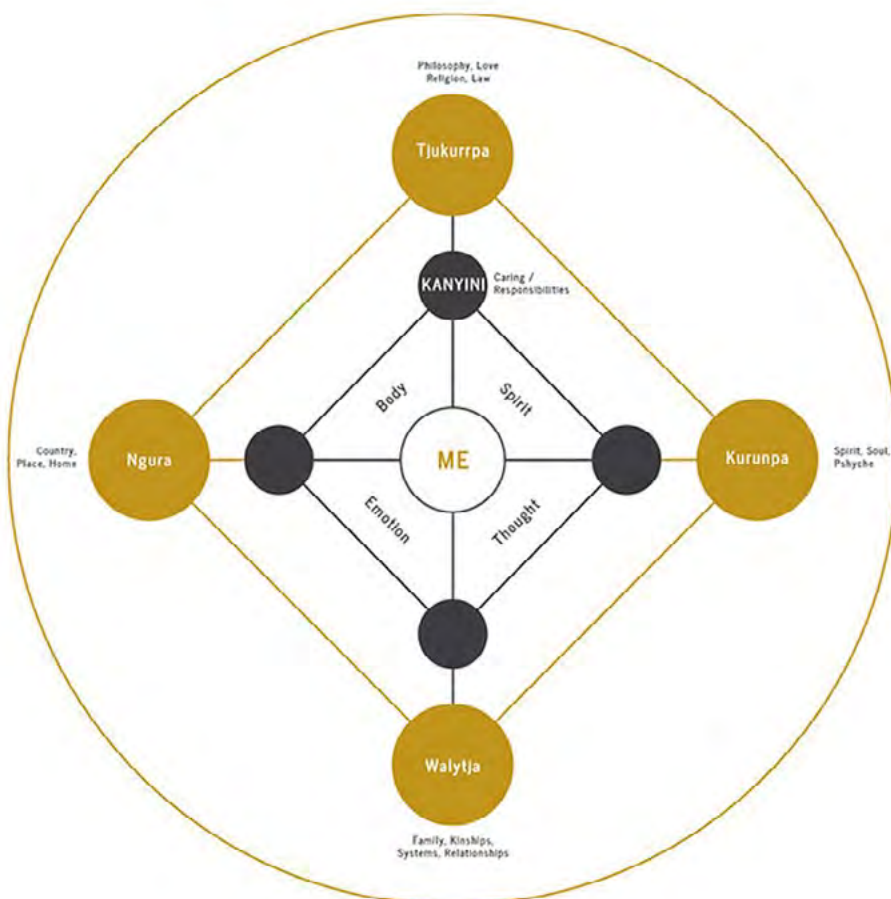


Image source: <http://www.kanyini.com/what-is-kanyini.html>

FIRST NATIONS PEOPLES

This film provides a very accessible overview of the history of the ongoing effects of white settlement on Indigenous Australians. It should be of interest to students and teachers in secondary schools and in the broader Australian community. It graphically covers the significant areas in which Aboriginal people have suffered dispossession and puts into context the ways in which this dislocation from tradition, land, spirituality, and family continues to affect their lives today."

Kanyini premiered at the Sydney Film Festival in June 2006.

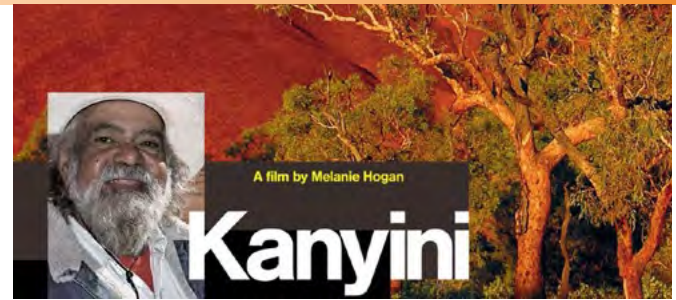


Image source: <http://www.kanyini.com>

STAGE 2: EXTEND

GROUP REFLECTION- [VTS] MICRO LAB PROTOCOL

In groups of THREE, discuss your answers to the above questions?

STAGE 3: CHALLENGE

INDIVIDUAL REFLECTION

After your group discussion, consider what you think is the most pressing issue facing Aboriginal Australians. Justify your idea.

After watching *Kanyini*

Four Pillars of traditional Indigenous society

Things Bob Randall believes are at the heart of the matter:

1. Belief system
2. Spirituality
3. Land
4. Family

TASK 4: Discuss with others how the loss of each of these **Four Pillars** has resulted in the present situation many Indigenous Australians face.

TASK 5: TURNING THINGS AROUND

Bob Randall (and others) has ideas about how the situation in which many Indigenous Australians find themselves can be turned around.

Many programs, some costing a lot of money, have been developed and tried in the past, but they don't seem to have had the desired results in many cases.

As Bob Randall says:

"You threw me a line called Welfare, but it's not as good as what I had ... the chaos and sadness we are feeling now is a result of our history ...

Open truth will set us free, not hidden truth."

[VTS] WHAT MAKES YOU SAY THAT?

Choose ONE of the **Four Pillars** of Aboriginal traditional society listed above, and explain your understanding of both the consequences of loss and possible ways to improve the lives of Indigenous Australians in this area.

SENTENCE
PHRASE
WORD

TASK 2: Share with the person next to you and submit your word to the Word Cloud. <https://coolinfographics.com/word-clouds>

TASK 3: (VTS) CONNECT, EXTEND, CHALLENGE

STAGE 1: CONNECT

INDIVIDUAL REFLECTION

1. Have you been to, or lived in, central Australia and/or visited Uluru?

If so, describe what Uluru and the surrounding countryside is like.

2. Do you know any Aboriginal Australians?
3. How do you perceive the way Aboriginal people are portrayed in the media, specifically in current affairs, and television news programs?
4. What do you believe are the major problems confronting Indigenous Australians today? How are they similar to, and unlike, problems other Australian citizens might face?
5. What is your understanding of the term 'The Stolen Generation'?
6. What do you think is meant by the term 'a black armband view of history'?
7. Do you believe reconciliation is a problem?

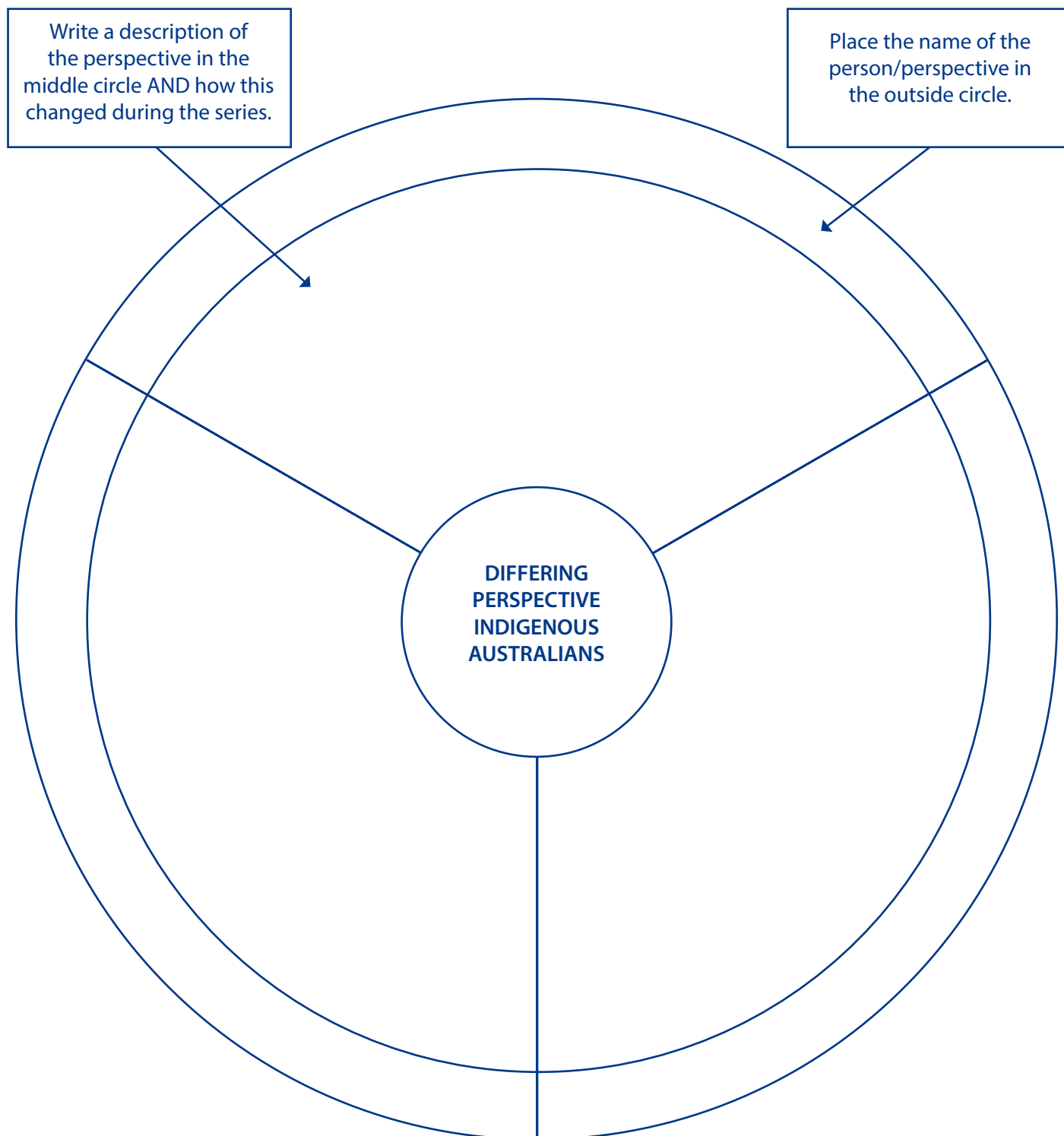
Adapted from Kanyini Study Guide 2006

FIRST NATIONS PEOPLES

TASK 6: CIRCLE OF VIEWPOINTS

Identify at least THREE different perspectives about the lives of Indigenous Australians.

Then provide a description of each of those perspectives AND how they changed during the "KANYINI".



FIRST NATIONS PEOPLES



Bob Randall – Yankunytjatjara Elder and a traditional owner of Uluru . Image source: <https://www.globalonenessproject.org/people/bob-randall>

TASK 7: HUMAN WELLBEING ISSUES

[VTS] CLAIM – SUPPORT – QUESTION

Using Internet resources, investigate **ONE** of the following:

CLAIM – Aboriginal Australians have higher rates of:

- Imprisonment
- Suicide
- Unemployment
- Domestic violence
- Lower life expectancy
- High rates of obesity
- Diabetes and kidney disease.
- Alcoholism
- Substance abuse, including petrol sniffing

SUPPORT

- a. An overview of the issue you have chosen
- b. Accurate, current statistics on the issue you have chosen
- c. An explanation of the differences in opportunities between rural and urban
- d. **ONE** already tried solution to address the issue

QUESTION

List **THREE** questions that have arisen after your research in this issue.

Image source: <https://www.globalonenessproject.org/people/bob-randall>

EXTEND

Find **ONE** other person that has completed the same issue and suggest **ONE** way that you believe the issue could be changed.

ETHICAL RESEARCH

Provide a bibliography of sources that supported your research.

TASK 8: IMPROVING HUMAN WELLBEING

How effective are government and non-government strategies that aim to improve human wellbeing in Aboriginal Australian communities?

Examples of websites that can be used to explore strategies to improve human wellbeing can be found in the Appendix.

For each website:

- a. Identify an initiative by the government and non-government organisation
- b. Outline the initiative.
- c. Has the initiative been effective in improving wellbeing? Provide evidence to support your answer.

References and further reading

Knowledge Circle | Australian Institute of Family Studies – <https://aifs.gov.au/past-projects/knowledge-circle>

NGOs best placed to improve Indigenous health | Fred Hollows Foundation – <https://www.hollows.org/au/latest/non-government-organisations-best-placed-to-improve-indigenous-health>

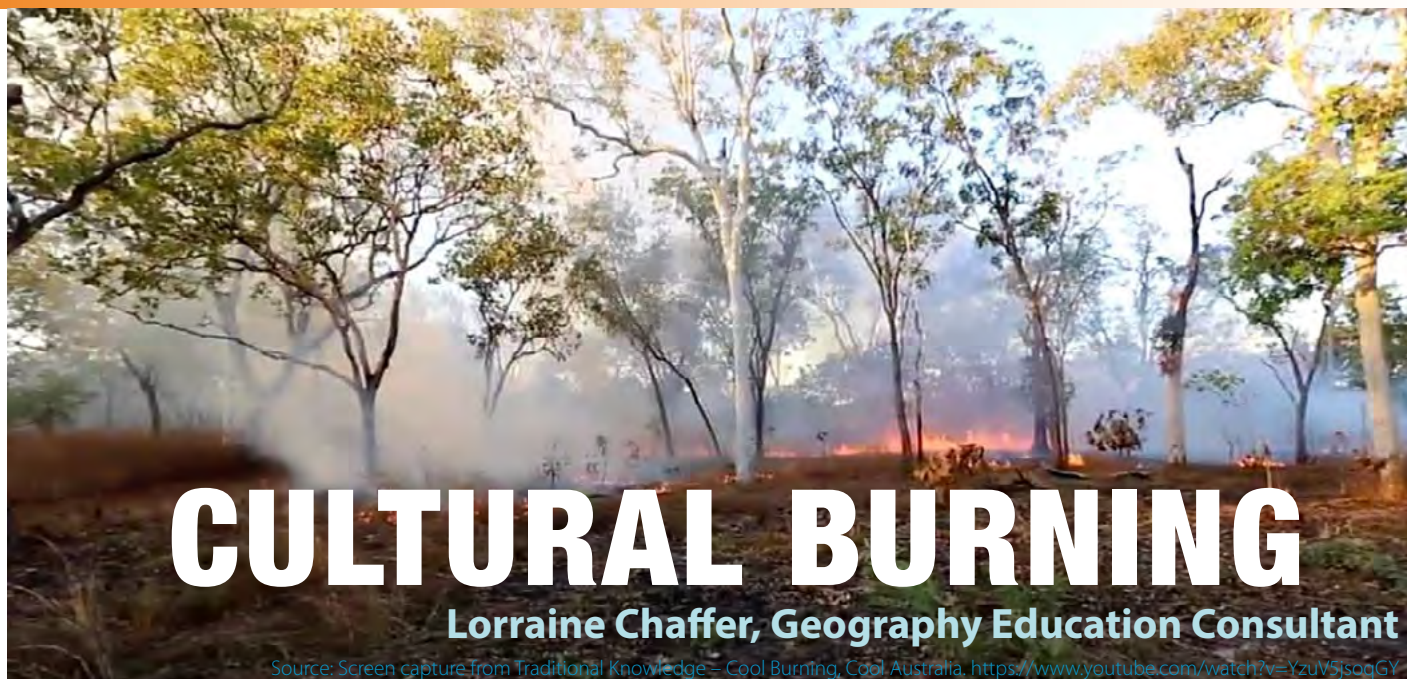
Close the Gap Campaign | World Vision Australia – <https://www.worldvision.com.au/global-issues/work-we-do/supporting-indigenous-australia/closing-the-gap>

Close the Gap: Indigenous Health Campaign – <https://humanrights.gov.au/our-work/aboriginal-and-torres-strait-islander-social-justice/projects/close-gap-indigenous-health>

Project Zero – <https://pz.harvard.edu/thinking-routines>

Kanyini – <http://www.kanyini.com/>





CULTURAL BURNING

Lorraine Chaffer, Geography Education Consultant

Source: Screen capture from Traditional Knowledge – Cool Burning, Cool Australia. <https://www.youtube.com/watch?v=YzuV5jsogGY>



CREATIVE SPIRITS®

RESOURCE: Cool burns: Key to Aboriginal fire management

Source: <https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>

Website Author Jens Korff

This article from the Creative Spirits website provides a comprehensive summary on the Aboriginal land management practice known as cool burning.

Before using this material with your students assess their current knowledge and understanding about cool (cultural) burning with a short quiz or a discussion.

Quick Quiz

(You could import these questions into a digital survey form.)

1. You are asked to describe and explain cultural burning to another student?

Locate your level of confidence on a scale of 1 – 5 or on the line below.

NO	POSSIBLY	YES
I am not confident	I have some ideas	I can do that

2. Suggest a reason for the title 'cool burning'.
3. Cool burning is used for land management. What do you think this means?
4. Is cool burning the same practice as backburning?
Yes No
5. Circle the places where you believe cool burning is used.
 - i. Aboriginal owned lands
 - ii. State forests
 - iii. National Parks and World Heritage sites
 - iv. Privately owned land such as farms
 - v. Land not managed by the Rural Fire Service.

Suggested activities

The following activities are differentiated to cater for students with varied levels of literacy and preferred learning leaning styles.

1. Guided Reading

Use the two guided reading templates in the Appendix. Selected information from Creative Spirits has been imported into these templates.

2. Create a Mind Map – Tony Busan method

This type of mind mapping uses colour, branches, images and mostly single words. Adding colour and sketches to a mind map makes students THINK about the information they are representing. As humans we think in images. When someone says 'elephant' for example, we visualise an image of an elephant. By visualising an idea by creating a simple image to represent that idea students have better recall at a later date.



A short video on the Tony Busan method can be viewed here.
<https://www.youtube.com/>

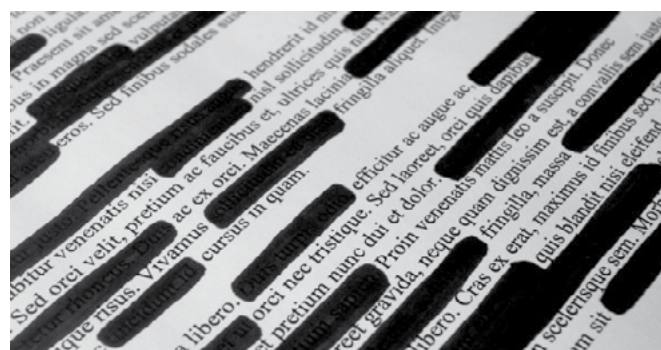
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- Provide students with piece of A3 paper and coloured pencils.
- Show students simple examples of this type of mind map to explain key features.
- Students read the following pages from the Creative Spirits website ONE section at a time to gradually build a mind map.
- Include each video as a new section. Hint: it may be convenient for a class to watch the videos at the same time.
- Model the Tony Buzan method using the section 'Aboriginal Fire Management'. Hint: you might pre-prepare this to develop your own tips for students.
- This activity is also suited to students working in small groups or pairs of students to build confidence and encourage the sharing of ideas.
- At the end of the activity students share their mind maps with the class who are then required to ask questions to the authors.

Example of a simple mind map using this method



Source: <https://www.mindmapart.com/better-earth-mind-map-kartik-agarwal/>



3. Colour Out Activity (Reverse summarising)

This activity challenges students to think carefully about the most important information they read– once information is coloured out, they cannot get it back.

- Provide students with a copy of the article and a COLOURED MARKER.
- Students cover the words and sentences they do not want to keep, leaving behind the most important information.
- Students use the remaining text to write a brief summary.

NOTE: Use this approach for one or more sections of an article.

This activity is similar to redacting, but you are keeping the most important information. For older students, explain the difference between 'redacting' of important documents and 'blacking out' as a way of summarising information.

Other sources of information about Cultural Burning

SMH Explainer: What is cultural burning – <https://www.smh.com.au/environment/climate-change/what-is-cultural-burning-20200228-p545e2.html>

The conversation: Aboriginal fire management – part of the solution to destructive bushfires – <https://theconversation.com/aboriginal-fire-management-part-of-the-solution-to-destructive-bushfires-55032>

The Guardian: Right fire for the right future – <https://www.theguardian.com/australia-news/2020/jan/19/right-fire-for-right-future-how-cultural-burning-can-protect-australia-from-catastrophic-blazes>

APPENDIX

The two guided reading activities have been included as an Appendix in PPT form and can therefore be adapted to suit your students.



COOL BURNS: Key to Aboriginal fire management

Jens Korff, Creative Spirits

Source: <https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>
Licensed by Copyright Agency

When Aboriginal people use fire to manage country, they consider a plethora of parameters. Read why cool fires are key and why the canopy is sacred.

Meaning of fire

Fire is an important symbol in Aboriginal culture.

Traditionally it was used as a practical tool in hunting, cooking, warmth and managing the landscape. It also **holds great spiritual meaning**, with many stories, memories and dance being passed down around the fire.

But when out-of-control bush fires burn Aboriginal land, they are “also burning up our memories, our sacred places, all the things which make us who we are,” says Yuin woman Lorena Allam, because “[we] lose forever what connects you to a place in the landscape”.^[4]

‘Whilst popularly known as traditional burning, cool burning, Indigenous burning, etc., the practice is actually cultural land management.’

Bhiamie Eckford-Williamson, Euahlayi man and ANU researcher^[5]



Fire-managed country. Notice the lack of tall grass or thick bushes. This would have been an ideal hunting ground a few weeks after a fire.

Aboriginal fire management

Fire management is part of how Aboriginal **people look after country**. It is often called ‘cultural burning’.

Definition: Cultural burns

Traditional fire management applies cool and quick burns. These low-intensity fires are also known as **cultural burning**. They have several benefits:

- **Save flora and fauna.** Animals, including beetles and ant colonies, have enough time to escape. Young trees can survive, and the fire keeps grass seeds intact for regrowth. The heat, which is much cooler than a hazard reduction burn, doesn’t ignite the oil in a tree’s bark. It’s a “tool for gardening the environment”.^[6]
- **Self-extinguishing.** The fire extinguishes straight after it burns the grass (“self-extinguishing fire”).
- **Avoid chemical weed killers.** Introduced species, for example grasses, are not fire-resistant and can be removed with fire instead of chemicals.^[3]

You can tell if a fire was a cool burn when the burnt grass still has its previous shape.

Cultural burning is tightly connected to caring for country. It is applied more frequently than hazard reduction burning and is very labour intensive.

Cultural burns are used for cultural purposes and not simply for asset protection. They protect Aboriginal sites and clear access to country for cultural uses (e.g., hunting, access to fish traps, ceremony grounds).^[7] Aboriginal control of preparation and implementation is essential.^[8]

FIRST NATIONS PEOPLES

Cultural fire means everything. It means healing Country and when you heal Country, you heal people.

— Wurundjeri Elder Dave Wandin [9]

After World War II, mission towns and cattle stations lured Aboriginal people away from **their homelands** with promises of work and education. [2] Fire management stopped with severe consequences for the land. Lightning strikes ignited large, hot fires late in the dry season, between August and December, when there was plenty of fuel.

The devastating 2015 Christmas bush fire at the Great Ocean Road in Victoria, triggered also by lightning, was only able to destroy a third of homes in Wye River and “entire streets” because “this country has not burnt, had a fire in it, in decades,” as Craig Lapsley, Victoria’s Emergency Management Commissioner admitted. [10]

This trend has not been reversed yet. “Since European settlement, fires in the north have increased in size and severity. This has threatened biodiversity as well as increased greenhouse gas emissions,” says Dr Garry Cook from the Commonwealth Scientific and Industrial Research Organisation (CSIRO). [1]

When Aboriginal people returned to country and properly managed it, the area that burned was cut in half. [2] Fire is an inevitable force in the dry season and needs to be managed. Fire burning has created a variety of habitats including places that are very sensitive to fire like rainforest.

In 2019, Forest Fire Management Victoria and Dja Dja Wurrung Clans Aboriginal Corporation (DDWCAC) jointly brought back cultural burning for the first time since invasion. [11] It follows a lesson learnt from the March 2018 fires across the Bega Valley in New South Wales which stopped where the Bega Local Aboriginal Land Council had done cultural burns the year before. [12]

But cultural land management cannot just be added to existing non-Aboriginal practices. Aboriginal people must be involved as they know **when** to burn, **where** to burn and **how** to execute a burn. [13]

Before Europeans arrived, Aboriginal people were practising a form of fire management that in some respects was more successful than that which has been practised since.

— Prime Minister Tony Abbott, after devastating bushfires in NSW [14]

Video: Cultural burning

Learn about cultural burning from Aboriginal fire practitioners (11 mins).



Source: <https://www.youtube.com/watch?v=RM72NtXxyLs>

When to burn

The timing of fire management is critical and needs to happen at the right time of the year. To Aboriginal experts, the country reveals when it is appropriate to use fire: indicators such as when trees flower and native grasses cure. “The knowledge is held within the landscape.

Once we learn how to read that landscape and interpret that knowledge, that’s when we can apply those fire practices,” explains Aboriginal community member Noel Webster. [15]

Ideal is the **early dry season, from April to July**, when vegetation that grew during the wet season begins to dry, fuel loads are low and wind patterns and drew support a burn. You don’t want to burn when certain seeds or fruits are ripe for harvest.

The bushfire threat **ends** usually in **November** when monsoon rains arrive and the wet season returns.

If burning too early, big thick shrub develops after the fire which can become a big fuel load and is hard to manage.

If burning occurs too late, trees ‘explode’ during the fire and not much will be left after the fire goes through. Such fires emit higher levels of greenhouse gases than early season fires. [16]

The right time depends on the ecosystem of the burn area because each system has its own identity and needs. An ecosystem is for example a forest of boxwood or tea trees, rainforest, or heath areas along rivers and springs.

FACT: Cultural burning is a practice not limited to Australia. Other indigenous peoples applied the same technique, for example the Indigenous Peoples of Canada.

The Northern Territory started supporting cultural burns on public lands from the early 1980s, New South Wales not before 2017. [8]

Cool fires

A central idea in fire management is to have a **cool fire**. Night-time or early mornings are ideal for cool fires as during the day plants sweat out flammable oils, and a nightly dew helps cool down the fire.

During a morning burn the wind is often gentle and supports Aboriginal people direct the burn. Without the help of the wind burning cannot happen at the right time. The sun, in contrast, encourages the fire to burn.

Cool fires don't bake the seeds and nutrients in the soil or destroy root systems. Flames are low so they cannot ignite the tree canopy and only char the bottom bark. They don't burn logs lying on the ground or habitat trees.^[12] Burning supports certain soils to improve and enables them to hold more moisture.

The speed of the fire is slow enough to allow insects to escape. If you cannot see an army of insects crawling and flying away from the fire, it is moving too fast and is too hot. The humans who manage the fire can also walk with the fire and correct if necessary.

Cool fires help change the vegetation structure by reducing the density of plants like Bracken Fern or Casuarina which lead to extreme fuel loads.^[11] But hot fires, such as hazard reduction burns, encourage their regrowth.

Aboriginal people who execute cool fires usually stay with the fire to manage it.^[11]

Video :Burning to heal: Indigenous burning before and after the Tathra bushfire (11 min, ABC)

Video: How to conduct a cool burn

John Daly, an Aboriginal ranger from Fish River, Northern Territory, explains a cool burn (5:20 min).



Source: <https://www.youtube.com/watch?v=UJKdZpRbzMk>

'The trunks show that they know fire, they live and understand fire, they're trees that belong to the fire.'

— Dr Tommy George, Kuku Thaypan Elder [17]

Where to burn

Like a non-Aboriginal person reads a book, Aboriginal people can read the land to determine which areas need fire management.

They prepare a burn by looking at the different ecosystems, patches, fuel loads, grasses, soil type, and the kinds of ashes a fire will leave behind. It is not "one big grass area to be burnt".

Trees tell Aboriginal people about the soil type and this tells them what type of fire is needed. Aboriginal people know which areas will burn and where the fire is going to stop. Some areas "want to be burnt" while others need to rest and regrow.

Cultural burns burn "for country" and not to satisfy a certain number of hectares for bureaucrats or statistics.

Indigenous [fire management] knowledge is really Indigenous science and must be recognised as this.

— David Claudie, Kuuku I'yu Northern Kaanju traditional owner [18]

Burning usually occurs at the edge to the next ecosystem to not affect it as it might require a different approach of fire management at a different time. Many small mammals and birds need ground to stay unburnt for at least three years.^[16]

How to manage a burn

Aboriginal people read the systems of fire—the grass, soil type, what animals live there and how they benefit from it. Burning styles differ depending on how "sick" the land is.

To **start a fire**, Aboriginal people traditionally used a tea tree bark torch. Contemporary fire management uses either a kerosene bark torch (the oil in the bark keeps torch alive) or a drip torch (hot fires).

The first fire burns a circle around Aboriginal people's living area so they are safe.

Early dry-season, cool fires trickle through the landscape and burn only some of the fuel, creating a network, or mosaic, of burnt firebreaks. These stop the late dry-season, hot fires.

The canopy is sacred

A cool fire preserves the canopy of trees. This is very important for several reasons:

- **Protection and provision.** The canopy provides shade, fruit flowers and seeds. It allows animals to come back quickly.
- **Carbon reduction.** Unlike a cool burn, a canopy fire releases too much carbon. Local land managers can then sell carbon credits for the emissions avoided. [1]

FIRST NATIONS PEOPLES

- **Fire refugee.** When there's a fire insects and other small animals crawl up the tree to safety.
- **Preserve tree cycle.** With its canopy intact the tree does not miss its cyclic renewal.
- **Trigger for germination.** The smoke from a cool burn goes through the canopy and triggers off a reaction for seeds up there to germinate.

No wonder that Aboriginal people consider the trees' canopy "sacred".

This is in stark contrast to how non-Aboriginal people understand fire. "Non-Indigenous mob, their fires are based on their money," complains David Claudie. [19]

Non-Aboriginal people, like pastoralists or officers in land management departments and other government bodies, are trying to learn how to manage fire correctly on their own, but the knowledge is right there under their nose, with Aboriginal people. All they need to do is ask for help. Some do.

The land has become sick and the land is pushing [pastoralists] to us [Aboriginal people].

— Victor Steffensen, Tagalaka man from North Queensland [20]

Fire cannot be managed from the air alone; you need to have people on the ground.

The problem is not the fire, it's people with no proper relationship with the land.

— David Claudie [21]



Source: Wikimedia Commons

Comparison: Cool vs hot burn

Hazard-reduction burns are deliberate, authorised fires to reduce fuel loads and threats to people and property from wildfires. They are also known as fuel reduction burns, prescribed, planned or controlled burns. These burns can often be much hotter than cool burns, [22] [23] with devastating consequences to the burnt areas.

Backburns are different – they are lit during an emergency to create a burnt buffer to stop an active bushfire and do not consider environmental impact.

Comparative table: Cool vs hot burns

	COOL BURN	HOT BURN / HAZARD REDUCTION BURN
Objective	fuel reduction, weed control, healing country, cultural practices, access to country	fuel reduction
Size	small patches	large scale operations
Burn schedule	determined by reading the land (e.g. tree species) and local knowledge from traditional custodians [24]	determined by computer modelling
Ignition point	chosen specifically so animals can escape	chosen by topography, several points spread out (e.g. along lines or grids), [25] often via helicopter drops (aerial ignition)
Burn speed	slow	fast
Temperature	low	very high
Flame height	knee-high	more than 1.5 metres (the upper limit recommended for fuel-reduction burning [26])

FIRST NATIONS PEOPLES



Post bushfire epicormic regrowth in eucalyptus, Blue Mountains, NSW, Australia. February 2020. Source: Wikimedia Commons

	COOL BURN	HOT BURN / HAZARD REDUCTION BURN
Timing	according to seasons and plant cycles	anytime, often not considering plant cycles
Extend of fire	controlled	controlled, but sometimes escapes control ^[27]
Flora impact	lower bark of trees scorched, burns grasses and leaf litter and some shrubs	significant parts of the tree burnt, often including its crown; burns all vegetation; sometimes loss of some native plant species from the ecosystem
Animal impact	time to flee or burrow	can be fatal
Soil impact	seeds, nutrients and roots intact, soil moisture increased	soil is baked, seeds and nutrients destroyed
Burn frequency	several times a year	annually, every seven years or not at all
Plants that regrow	native grasses and herbs	dominating ferns and trees
Fallen logs	don't burn, preserving animal habitats	burn to ashes
Fire stops	naturally (self-extinguishes) or controlled stop	at control (containment) lines (i.e. in a managed way)
Labour effort	very high	high
Weather impact	light and patchy smoke	heavy smoke, red or black sky, pyrocumulus (flammagenitus) clouds, lightening, ashy rains
Climate impact	greenhouse gases	heavy greenhouse gases
Property impact	little to none	severe loss of properties and infrastructure
Nature recovery	quickly	many years, sometimes decades

Source: Cool burns: Key to Aboriginal fire management - Creative Spirits, retrieved from <https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>

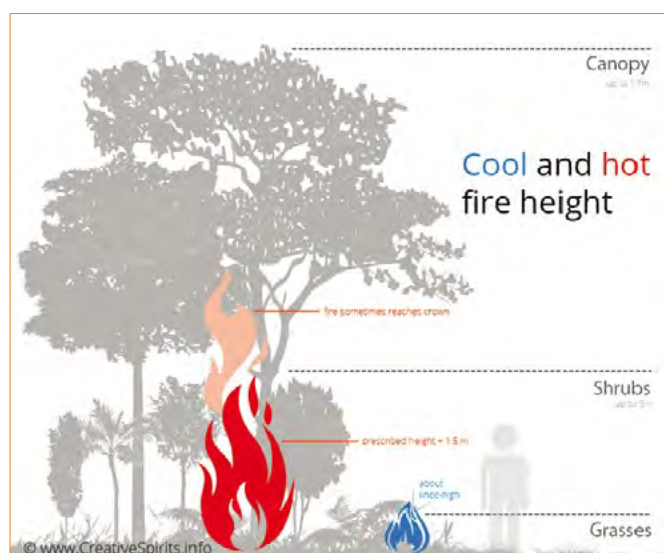
FIRST NATIONS PEOPLES

Research shows that hazard reduction burning is not an effective method to prevent subsequent bush fires. [28]

Sick country needs fire to restore its health. One of the signs that country is sick is a heavy layer of leaf litter.

— Sue Stevens, Reduce Your Footprint [23]

Flame height of a cool burn vs. a hot burn



The prescribed flame height for hot burns is 1.5 metres, but sometimes these fires are much higher and occasionally reach the tree crown.

The “two toolbox” approach to fire management

Aboriginal Elder Terrah Guymala is a senior member of the Bordoh clan of the Warddeken people in remote west Arnhem Land and director of Warddeken Land Management.

He uses a “two toolbox” approach to manage fire: One virtual toolbox contains **traditional knowledge** and land management skills, the other **Western knowledge** like using helicopters and satellite imaging. [2]

This combined knowledge lets the Warddeken people manage their country successfully.

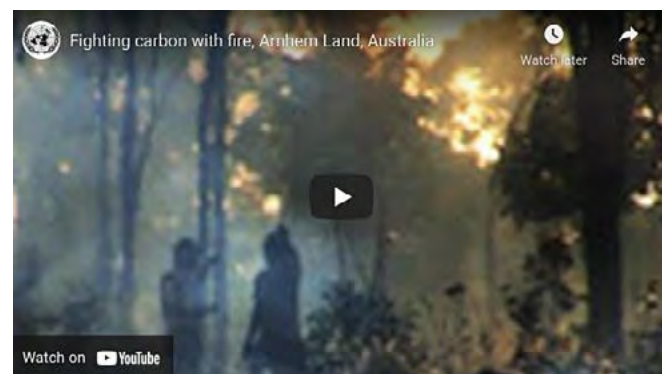
Elsewhere the Commonwealth’s Carbon Farming Initiative motivates Aboriginal people to restore traditional fire management practices on their homelands. They combine modern environmental and fire science with traditional “mosaic” burning practices. [1]

People here see burning as like mowing the lawn. It’s how they maintain and manage their land.

— Shaun Ansell, chief executive, Warddeken Land Management [2]

Fighting carbon with fire in western Arnhem Land, NT

Watch a video by the United Nations University about how the “two toolbox” approach saves thousands of tonnes of carbon each year.



Source: <https://www.youtube.com/watch?v=Qfjw5Vts8hQ>

Fire, fauna and flora

The discussion around the sacred canopy of trees already indicated the intricate links between fire, animals and plants.

During a fire, bush turkeys hunt for bugs and insects at the fire line while hawks scour it for small animals.

Animals know how to protect themselves from fire: ants and snakes go deep down into their nests and burrows; kangaroos find safe spots on rocky outcrops.

Regular burning is also an effective weed control to introduced species like the African gamba grass which can increase fuel loads 10-fold. [2]

After a fire, if it was cool, new grass is growing only weeks after a burn. It holds the soil together and provides a source of food for wombats, wallabies and native birds, and ample of hunting opportunities prior to invasion. Brolgas (Australian cranes) eat insects that have been burnt.

Wallaby, birds and other animals bathe in the cool ash to cleanse themselves, for example to get rid of lice. The black coals can also be used as medicine.

Do we burn too often, too much?

Fire management is not without its critics. It divides tourism operators, bushwalkers, environmentalists, ecologists and archaeologists.

Some believe that that too much land is burnt too often, and that fighting fire with fire worsens what it should protect: the loss of habitat, decline of species, erosion, flooding and the destruction of **Aboriginal rock art**. Bushwalking businesses are concerned to lead their customers “through ash” while environmentalists stress

that “good” fire regimes should maximise the extent of unburnt areas. ^[16]

Another point of conflict arises when landowners are paid to burn early in the season, called **savanna carbon farming**. The fire stimulates grass regrowth, so carbon dioxide emissions from the fire are not included in emission calculations because it is assumed that vegetation regrowth removes an equivalent amount from the atmosphere. ^[29]

Farmers and landowners are reluctant to burn their land as kilometres of fences, often built using wooden posts, could catch fire. Their replacement can cost as much as a quarter million dollars. ^[30]

While Aboriginal custodians managed for thousands of years to preserve Aboriginal rock art within areas which were regularly burnt, current fire practices (“hazard reduction burns”) might no longer guarantee the same result. Archaeologists claim that aerial burning is responsible for fading and scorching art and destroying as much as 30% of it in the Kimberley. ^[16]

‘Controlled’ is not a word you’d use to describe Australia’s 2020 bushfires, our wildfires. They howled and devoured like fiery beasts themselves, they incinerated and razed.

— Kim Scott, Noongar author ^[31]

Passing on fire management knowledge

Aboriginal people understand that fire is part of the healing process of the land. Children as young as four learn how to lose their fear and manage fire.

Going back to their homelands, Aboriginal people want to heal the land from colonisation. Proper fire management is an essential part of this healing process. But it goes both ways – Aboriginal people who go out on country also reconnect with culture. ^[16]

Elders share knowledge with younger generations of Aboriginal men who receive training from the Royal Fire Service. Cultural burning also complements the fire service’s hazard reduction burns in fire-prone areas. ^[15]

As **Aboriginal rangers** increase their knowledge of how to manage fire, so rises their confidence and sense of identity. “Having the rangers here plays a big part in keeping identity alive and pride in what our people have,” finds Aboriginal ranger Robin Dann. ^[16]

Rangers burn vegetation to protect rainforest patches, rock art and traditional pathways. They track the progress of fires with online maps based on satellite images.

If we go by government plans, all of Australia will be burnt out and not just by fire.

— David Claudie ^[32]

FACT: The remote Lake Tyers Aboriginal Trust Country Fire Authority (about 350 kms east of Melbourne) employs Australia’s first all-Aboriginal, all-female fire brigade.

Did fire influence Australian trees?

For thousands of years, Aboriginal people have used fire to hunt and to manage the landscape. Some scientists have argued that when people first arrived in Australia about 45,000 years ago they set a large number of these fires, which **reshaped the country’s ecosystems**. This theory has become an accepted idea.

A study from the University of Tasmania examined this theory by analysing the genetic fingerprints of a particular fire-sensitive tree found across the continent. ^[33]

It found that fluctuations in populations of these trees across the continent since the arrival of people were **driven primarily by climate, not fire**. Aboriginal use of fire seems not have caused a major restructuring of vegetation across the continent.

“The effect of Aboriginal landscape burning is a lot more subtle. It’s still important, but it’s subtle and it’s region-specific,” the researchers concluded. ^[33]

Teaching resources

Cool Australia

Educational website CoolAustralia.org has prepared lessons and supporting material like worksheets for primary and secondary students.

Lessons revolve around cool burning, fire management, benefits, climate change and the Fire Triangle model. A login is required to access the material.

Check out [primary student](#) and [secondary student](#) material.

Firesticks Alliance Indigenous Corporation

The **Firesticks Alliance Indigenous Corporation** is an Aboriginal-led network that aims to re-invigorate the use of cultural burning. It offers cultural learning pathways to fire and land management and is open for Aboriginal and non-Aboriginal people to look after country, share their experiences and collectively explore ways to achieve their goals.

Firesticks offers fire workshops and burning forums and demonstrations.

Koori Country Firesticks Aboriginal Corporation

The **Koori Country Firesticks Aboriginal Corporation** is a non-for-profit organisation that works to revive cultural burning as an alternative approach to hazard reduction burns. You can participate in workshops, demonstrations, camps or events.

Source: Cool burns: Key to Aboriginal fire management – Creative Spirits, retrieved from <https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>

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Harvard citation

Korff, J 2021, Cool burns: Key to Aboriginal fire management, <https://www.creativespirits.info/aboriginalculture/land/aboriginal-fire-management>, retrieved 29 March 2021. Licensed by Copyright Agency

FIRST NATIONS PEOPLES

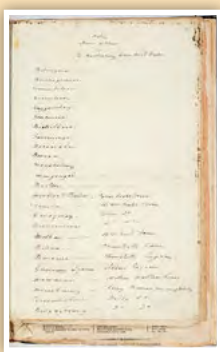


AN ARTICLE, AN EXHIBITION & A BOOK

Lorraine Chaffer, Geography Education Consultant

1. Article: 'Following the River' Openbook magazine, 2021 State Library of NSW

This article, recently published in the NSW State Library magazine Openbook, uses stories from Darug women as a lens for understanding the geography and history of Dyarubbin (the Hawkesbury River). In the article, the author Marika Duczynski, recounts visits to the river with Aboriginal women and the stories told about places along the river and cultural and spiritual connections with those places. Marika refers to and draws on Aboriginal place names found on McGarvie's List, an archived record of 178 Aboriginal place names recorded by a Presbyterian minister in 1829.



Rev John McGarvie's list of 'Native names of places on the Hawkesbury' 1829

List of 178 Darug and Darkinyung names of places along Dyarubbin (Hawkesbury River) compiled in 1829 by the Reverend John McGarvie, Presbyterian Minister at Ebenezer and Pitt Town, as he

and his Aboriginal informant/s travelled along the riverbanks. The words appear in geographic order and often with locational clues, like settlers' farms, creeks and lagoons. The list is in McGarvie's papers in the Mitchell Library, State Library of New South Wales.

https://dictionaryofsydney.org/artefact/rev_john_mcgarvies_list_of_native_names_of_places_on_the_hawkesbury_1829

2. A list, an idea, a project and an exhibition

According to historian Grace Karskens, the discovery of McGarvie's list during her research on the river was the stimulus for the idea for an exhibition. The visits to the river are narrated by Marika Duczynski and are a part of this story.

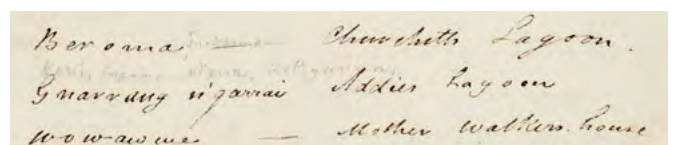
In her own words Grace wrote:

'I'm stunned. I sit there staring at the screen, hardly believing my eyes. After years of research, my own and others, I had thought that most of the Aboriginal names of the Hawkesbury were lost forever, destroyed in the aftermath of invasion and dispossession. Yet, suddenly, this cache of riches.'

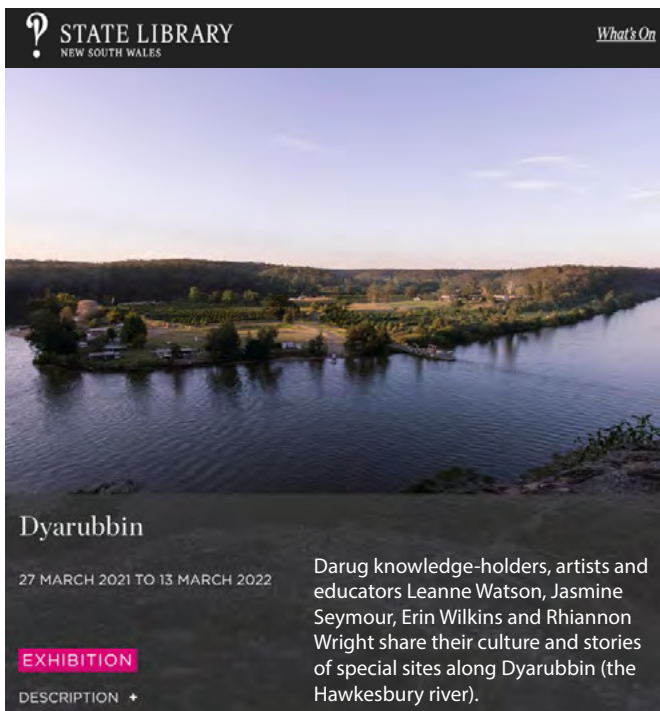
Grace's article 'A list of Aboriginal placenames was a trigger for seeking the 'real secret river' tells the story of her discovery and the idea for the 'Real Secret River Dyarubbin' collaborative project. As well as reconnecting the list to living Aboriginal knowledge, the project 'explores the history, languages, ecology, geography and archaeological evidence of the Hawkesbury River', and tells an Aboriginal history until recently considered 'lost'.

A list of Aboriginal placenames was a trigger for seeking the 'real secret river' <https://www.sl.nsw.gov.au/stories/exploring-dyarubbin>.

Of great interest to Geographers are plans to map all of the names on McGarvie's list and to educate Australians about the history behind the words.

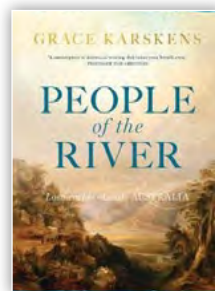


Detail from McGarvie's list Source: https://dictionaryofsydney.org/artefact/rev_john_mcgarvies_list_of_native_names_of_places_on_the_hawkesbury_1829



3. State Library Exhibition DYARUBBIN

This year long exhibition is about Aboriginal places and people along the Hawkesbury river as told through the stories of living Aboriginal knowledge holders, educators and artists involved in the project.



4. Book 'People of the River: lost worlds of early Australia'

Grace Karskens

In her book, Grace explores Aboriginal and British histories of the Hawkesbury River.

Recommended reading for Geography and History teachers.

5. Video Interview

<https://www.youtube.com/watch?v=hDgLNr1dz9s>



'Grace Karskens joined Hornsby Shire Libraries in September 2020 to discuss her book 'People of the River: lost worlds of early Australia' in conversation with Mariko Smith. This is a history of the Dyarubbin (or Hawkesbury-Nepean River) where the two early Australias – ancient and

modern – first collided. People of the River journeys into the lost worlds of the Aboriginal people and the settlers of Dyarubbin, both complex worlds with ancient roots.'

Following the river

Dyarubbin, the Hawkesbury River, from above Sackville Reach

44/ OPENBOOK : Autumn 21



EXHIBITION

WORDS **Marika Duczynski**
PHOTOGRAPHY **Joy Lai**

It's time to tell a deeper and more truthful story about Darug Country.

I'm standing on the banks of Wianamatta, or South Creek, with Darug knowledge-holders, artists and educators Jasmine Seymour, Leanne Watson and Rhiannon Wright. Together with my colleagues Avryl Whitnall, Joy Lai, and videographer Bill Code, we're here filming for an exhibition we're putting together on Darug stories of Dyarubbin, the Hawkesbury River.

We raise our voices to talk to one another against the noisy traffic heading in and out of Windsor on the Fitzroy Bridge. Leanne tells us that Wianamatta was an important pathway and resource for Darug people, running north some 70 km from Oran Park through some of Sydney's driest, hottest Country before eventually joining with Dyarubbin. I try to follow its long line with my eyes but it curves out of view almost immediately, the closest bend thickly obscured by shrubs and weeds.

Behind us is the old toll house built at Green Hills (later renamed Windsor) by Andrew Thompson, one of the early colony's most celebrated figures. A convict who became a wealthy landowner, chief constable and magistrate, Thompson is remembered as something of a hero for saving settlers from the floods of 1806 and 1809. He died a year later from complications of a respiratory infection he had sustained in the second flood.

Governor Lachlan Macquarie had these deeds inscribed on Thompson's tombstone and named Thompson Square, in the centre of Windsor, in his honour. When the story of Thompson as the exemplary emancipist is told, even today, one detail is usually omitted.

Thompson led a party of settlers that massacred Darug people at a camp at Yarramundi, about 20 km west of Windsor, in 1805. In this reprisal for the killing of three settlers, seven, eight, or possibly more Darug ancestors were killed, including leader and cross-cultural spokesman Yaragowhy.

This well-documented event is not so much a secret as a rarely mentioned blight on the shining narrative of Thompson's life and legacy. That he would have overseen, facilitated or been aware of other violent crimes against Darug people as chief constable and magistrate further complicates how he might be remembered. Jasmine, Leanne and Rhiannon believe the failure to confront the darkest aspects of colonial history in this region contributes to the continued erasure of Darug people who have lived along this part of Dyarubbin for millennia.

Bulyayorang is the name Darug people still use for the land over which Windsor was built. On a high point above the river — where Thompson Square is now — was a corroboree ground.

Following the river : **OPENBOOK** / 45

Following the river



Dugga (brush forest) Country, Cattai

The information publicly available about Windsor makes little mention of this history, but gives ample information about the site's colonial foundations, promoting the heritage value of its Georgian buildings, and even recounting the time when it was known as Bell Post Square and hosted convict floggings. That a special place for the Darug people was co-opted for this purpose is unquestioned. Heritage sites across the Hawkesbury River region focus almost exclusively on colonial history, Leanne tells us, and don't reflect Darug people's history or culture.

I'm reminded of an 1809 painting of the area by surveyor George William Evans — *The Settlement on the Green Hills, Hawksburgh River N.S.Wales* — which depicts the small but prosperous-looking settlement that would come to be known as Windsor. The watercolour painting has deteriorated over time: its once-green hills have darkened in some places and faded in others; the blue river and sky are now grey. The muted palette lends an even greater sense of calm in the colony than the painting originally intended. It belies the unease that must have been felt in the region at the time of brutal frontier wars. This is Evans' reflection of the settlement as it would like to

see itself, of course, a vision legitimised by denying Aboriginal sovereignty and custodianship of the very same place.

It's well known that Dyarubbin's fertile flood plains became prized agricultural land, the 'food bowl' that was crucial to the early colony's survival. But taking land along the river for farming and settlement came at a great cost, increasingly cutting Darug people off from their most vital resource.

Every year when the maize ripened, Darug people would come and take the produce of their Country. Some settlers shared it with them; others shot at them. Warfare broke out when Darug warriors — men and women — fought to defend not only their lands and livelihoods, but also their culture, spirituality and sense of being. This identity was — and still is — intrinsically connected to the river.

Following the river, we drive about 15 km north-east to Cattai. Even today, pockets remain of the plentiful resources traditionally used by Darug people. Jasmine and Leanne collect spinach-like Warrigal greens, native raspberry and wombat berry vine as well as sandpaper fig, which was used to sharpen tools, and native geranium, a poultice for arthritis.

Following the river



Tool-sharpening grooves at spring-fed rock pools in Marramarra National Park

The site has even greater significance, as Jasmine and Leanne believe Cattai marks the beginning of an important part of Darug lore. It's here that the landscape changes from alluvial river flats to sandstone Country. Rock engravings on the biggest bends of the river tell the story of the Great Eel, the creation ancestor spirit.

We heard that some of the engravings have been destroyed, and we could see that the places where traditional foods and resources can be found are rife with invasive weeds and rubbish, with tyre marks churning up the earth. Jasmine and Leanne call this wirri ngura: bad Country, sick Country. The resilience of the plants is remarkable.

Further north-east, we visit healthy Country at Marramarra National Park, where a rock art cave is protected by a steel barrier. We spend almost all our time here looking up, our eyes running over the beautiful ochre paintings of echidnas, turtles, tiger quolls and ancestor beings. The paintings suggest the cave was a significant site.

On the lip of a waterhole above the cave — one of several — are axe grinding grooves. Jasmine, Leanne and Rhiannon believe the circular motif repeated on the cave's interior walls,

joined by one continuous line, may represent the surrounding waterholes — plentiful across the whole area — which then connect with creeks lined with yet more special sites.

This abundance and interconnectedness is reflected in the name of nearby Maroota, which means 'the place of many springs'. Keeping the waterholes and creeks healthy and flowing in such hot and dry Country would have been critical for the ancestors taking care of this place. Today, farming and sand-mining upstream threaten this complex network of waterways.

In 2017 historian Grace Karskens came across a list of Aboriginal placenames along Dyarubbin compiled by Reverend John McGarvie, a Presbyterian minister, in 1829. Titled 'Native Names of Places on the Hawkesbury', this manuscript at the State Library of NSW lists six pages of placenames in the order of their location along the river. The list became the basis of the project 'The Real Secret River, Dyarubbin' — conceived in collaboration with Jasmine, Leanne, Rhiannon and Darug woman Erin Wilkins — which won the Library's Coral Thomas Fellowship for 2018–19.

As most of the placenames on McGarvie's list had been lost, as Aboriginal languages were systematically diminished over

Following the river



Wowawme rock shelf, Sackville Reach on Dyarubbin (Lyra, great-granddaughter of Darug Elder Auntie Edna Watson, in foreground)

time, one of the project's aims is to map and return the names to their river locations. It is hoped that this will encourage wider usage and understanding of their meanings. Concurrent exhibitions at the Library and at Hawkesbury Regional Gallery will be among the ways these placenames and their stories are shared with Aboriginal people and brought to diverse audiences.

On our next weekend of filming we travel to a place of enormous spiritual significance for Darug people: one of the resting sites of Gurangatty, the Great Eel ancestor creation spirit, in one of the deepest parts of Dyarubbin. Even with the cicadas' endless droning, it's peaceful sitting on a ridge high above the river. Jasmine, Leanne, Rhiannon and Erin tell us that the water swirling on the water's surface is symbolic of the Great Eel, which is connected to water, whirlpools and flood power.

Further downstream is Dorumbolooa, which means 'zone of the rainbow' or 'path of the rainbow'. Further still, at Wowawme, another placename on McGarvie's list, Gurangatty is said to keep watch from a steep rock shelf. ('Waway' means 'serpent spirit' and mii is 'eye' according to Professor Karskens and linguist Dr Jim Wafer, who has been working on the Real Secret River,

Dyarubbin project). Jasmine says Wowawme connects the Great Eel to stories of the Rainbow Serpent across the continent.

Our last day of filming is at Shaws Creek Aboriginal Place in Yellomundee Regional Park. An important meeting, fishing and camping place, the site is a traditional river pathway through to the Blue Mountains. We've arrived at the same time as an Aboriginal dance troupe, which is also filming here.

Erin tells us that Aboriginal people from all over Sydney still gather here to socialise and continue the cultural practices of firestick farming, cultural burning and dance. When we ask her what she'd like people to take away from the *Dyarubbin* exhibition, she looks at the camera and says: 'We are still here. This always was, *this always is*, and this always will be Darug Country.' She's right, and there's no better place, and no better way, to say it.

Marika Duczynski (Gamilaraay),
Indigenous Engagement project officer

***Dyarubbin* is a free exhibition in the State Library's galleries from 27 March 2021 to 13 March 2022.**

Following the river

We need to care for Country, it needs to have fire, it needs to clean up all of these areas because then the wildfires come through and just destroy whole habitats. We need to look after our water sources to feed all of the animals that still live here ... and it's really important, the Darug people *are still here*, we need to be able to visit our sites, care for our sites and hold ceremony at our sites.

— Leanne Watson



Jasmine Seymour, Rhiannon Wright, Leanne Watson

On Country

Darug women Jasmine Seymour, Rhiannon Wright and Leanne Watson spoke together at the Canoelands spring-fed rock pool site at Marramarra National Park.

JS: Maroota is very, very special ... this is like a super-highway almost of knowledge and great spiritual significance as well, but also of practical significance because this is water, this is what you need to survive, this is *the* most prized possession we have ...

RW: You could imagine the struggle between the two people with fresh water being such a needed resource ...

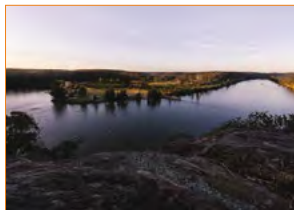
JS: People wouldn't have left this very easily, would they? This would have been one of the last places that they wanted to leave, they would have protected this really with everything they had ...

RW: Out here still we're taking from this Country there are sand mines and market gardeners and yet our water sources are still so important ...

RW: You also need to give back to Country, that's what our people would have done here, we would have given back, we would have taken care of it ...

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Openbook magazine for members, State Library of NSW, 2021



DYARUBBIN

IMAGE: SACKVILLE REACH, DYARUBBIN (HAWKESBURY RIVER). PHOTOGRAPH BY JOY LAI, 2020

Media Release



New State Library exhibition reveals little-known stories of the Dyarubbin

29/3/2021

We are still here, we are still strong and we have more than 60,000 years of culture in our blood and in our hearts. Rhiannon Wright (Darug)

Little-known stories of Dyarubbin — the Hawkesbury River — are revealed by Darug women storytellers in an evocative new exhibition that has just opened at the State Library of NSW.

In *Dyarubbin*, Darug knowledge-holders, artists and educators — Leanne Watson, Jasmine Seymour, Erin Wilkins and Rhiannon Wright — bravely share their stories of seven special sites along this beautiful and haunting place.

According to State Library curator Marika Duczynski (Gamilaraay): “Darug people have lived along Dyarubbin for millennia, but their stories are often unacknowledged in the widely celebrated heritage of the region. The focus on colonial history ignores the devastating impacts to Darug Country and the lived experience of Darug people.”

“It’s time to tell a deeper and more truthful story about Darug Country,” said Ms Duczynski.

“The real story of this place is much darker,” added Jasmine Seymour.

Darug culture, spirituality and sense of being are all connected to the river. Shaped like an eel, its bends and features are all encoded with meaning.

Moving from Yellomundee Regional Park to Canoelands in Marramarra National Park, the women generously share their culture and tell stories of their ongoing connection to Country. They recount oral histories of Darug ancestors whose sustenance, livelihood and spirituality were intrinsically connected to the river. They also reflect on the negative impact of modern farming and urbanisation to Darug Country today.

One site of enormous spiritual significance, which exhibition visitors will have the privilege of experiencing, is one of the resting sites of Gurangatty, the Great Eel ancestor spirit. Visitors will also see a rare Great Eel rock engraving — only a few survive — in a part of Dyarubbin not accessible to the public.

Ms Seymour said seeing the eel engraving for the very first time was “incredibly beautiful and deeply sad.”

E&D-5612-3/2021



DYARUBBIN

IMAGE: SACKVILLE REACH, DYARUBBIN (HAWKESBURY RIVER), PHOTOGRAPH BY JOY LAI, 2020

Media Release



And while the Darug women were overjoyed that it was safe and had not been destroyed, “we were overwhelmed by the cultural loss that our people have had in the Hawkesbury. Many sites are inaccessible to us because they are on privately owned land.”

“Gurangatty is one of our creation heroes. The Aboriginal geography of Dyarubbin shows us the path of Gurangatty and the deep time connection to Country the Darug people have custodianship of,” said Ms Seymour.

“Floods are connected to the Gurangatty story. Gurangatty’s flood power created Country. Floods and fire have always been part of this Country. We are experiencing the same force of nature that Aboriginal people have experienced for eons.”

The exhibition builds on the Darug women’s collaboration with Professor Grace Karskens on ‘The Real Secret River, Dyarubbin’ project, following her landmark discovery of Reverend John McGarvie’s list of Aboriginal placenames on the Hawkesbury (1825–35) in the State Library’s collection.

McGarvie’s list will be on public display in the exhibition for the first time, along with:

- ration lists (1866–84) from the Sackville Aboriginal Reserve;
- 1907 letters written by Aboriginal women living on the Sackville Aboriginal Reserve;
- 1816 watercolour panorama of the Hawkesbury (Dyarubbin) and South Creek (Wianamatta) in flood around Windsor (Bulyayurang); and
- 1809 watercolour of the confluence of the Nepean, Grose and Hawkesbury Rivers.

Dyarubbin is on display at the State Library of NSW until March 2022.

Media contact:

Vanessa Bond, Media & Communications Manager, State Library of NSW
02 9273 1566, 0411 259 898, vanessa.bond@sl.nsw.gov.au

I can highly recommended this free exhibition. It consists of several excellent video presentations with interviews and commentary about places along the river. You will leave with a deeper appreciation for, and understanding of, cultural connections and lost Aboriginal history and geography of place.

Lorraine Chaffer

E&D-5612-3/2021

Understanding Nations and Language Groups

Katerina Stojanovski, Stella Maris College

Image source: <https://www.sydney.edu.au/about-us/vision-and-values/our-aboriginal-and-torres-strait-islander-community/kinship-module.html>

The University of Sydney – Kinship Module

The **Kinship module** is a free online resource developed by The University of Sydney to provide users with an overview of kinship structures in Aboriginal communities. The module is suitable viewing for teachers as professional learning and can be shown to students in any of the Stage 4 and 5 topic areas to develop a better understanding of the complexity of kinship systems within Aboriginal and Torres Strait Islander histories and cultures. There are eight modules in the series. Each module consists of a short video ranging from 2–5 minutes in length, several questions and additional readings. The topics in each module are:

- Welcome and acknowledgement
- Nations, Clans and family groups
- Moiety
- Totems
- Skin Names
- Language and traditional affiliations
- Lines of communication
- Disconnected lines

Reference

Kinship Learning Module – <https://www.sydney.edu.au/about-us/vision-and-values/our-aboriginal-and-torres-strait-islander-community/kinship-module/learning-module.html>

The **Community narratives** are a series of interviews and conversations with aboriginal community members to discover their perspectives on key social and cultural issues that have impacted their lives. The interviews range from about 14 minutes and 1 hour in length and provide indigenous voice which is important to address cross-cultural misunderstandings. Their first hand stories endorse Indigenous peoples knowledge.

Reference

Community Narratives – <https://www.sydney.edu.au/about-us/vision-and-values/our-aboriginal-and-torres-strait-islander-community/kinship-module/community-narratives.html>

Colour-in First Nations Map of Australia

How many of your students can identify an Aboriginal Nation, clan or language group? Understanding Indigenous place names is essential when teaching Aboriginal and Torres Strait Islander histories and cultures. This activity developed by the Harbour Trust can be adapted and integrated in any Geography K–12 class. You could use this activity in conjunction with a mapping activity where people, places and environments need to be mapped.



First Nations map of Australia; image source https://www.harbourtrust.gov.au/media/3018/ht-first-nations-map-activity_learning-resource.pdf

Activities

Access the AIATSIS map of Indigenous Australia <https://aiatsis.gov.au/explore/map-indigenous-australia> and conduct internet research to complete the activities.

Using a key, colour and label the following on the First Nations map of Australia. Include their Aboriginal names and their English names.

1. Identify FIVE Aboriginal Nation groups. e.g. Eora, Dharug, Wiradjuri, Wik, Yolngu, Gurindji.

FIRST NATIONS PEOPLES

2. Identify the Aboriginal Nation of your home and school.
3. Identify the Aboriginal Nations of FIVE places that you have visited.
4. Identify well-known landscapes and landforms e.g. Uluru, Lake Condah and The Three Sisters. Research their country, clan and language groups.
5. Travel 100km in any direction from your home or school, name the Aboriginal lands that you will pass.

Reference

Harbour Trust – https://www.harbourtrust.gov.au/media/3018/ht-first-nations-map-activity_learning-resource.pdf

Signposting Country

It is not often that you drive in Australia and you see a signpost identifying First Nations land. However, for commuters travelling along the M1 from Sydney to Newcastle it is pleasing to see that Transport for NSW have placed signs along several locations to identify the Aboriginal lands as Darkinjung Country. There are signs in Yaegl Country in Northern NSW as well. Having more of these signs across Australia will aid in the identification of Aboriginal lands in our country.



Darkinjung Country – Image Source: <https://www.nbnnews.com.au/2020/12/09/road-signs-recognise-darkinjung-country/>



Yaegl Country – Image source: <https://www.nbnnews.com.au/2020/12/11/new-signs-acknowledging-aboriginal-country-in-the-northern-rivers/>
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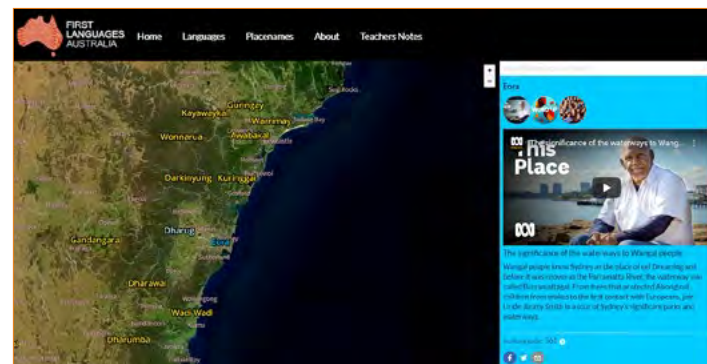
New signs acknowledging Aboriginal Country in NSW – <https://www.nbnnews.com.au/2020/12/11/new-signs-acknowledging-aboriginal-country-in-the-northern-rivers/>

Gambay – First Languages Map



First Languages Australia. Image source: <https://gambay.com.au/>

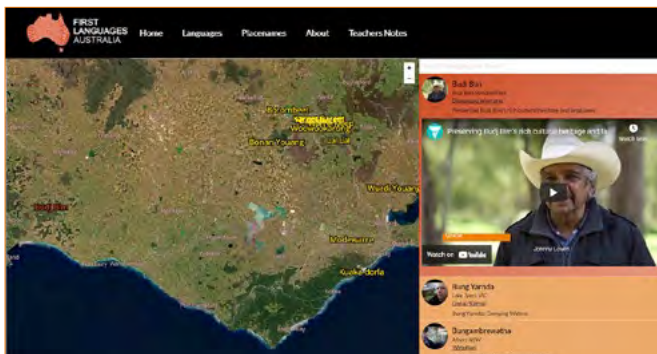
First Languages Australia is developing a map of Aboriginal and Torres Islander languages that represent the First Nations communities. This website would be useful to explain to students the varied Nations, languages and clan groups that exist. Select “explore the map” on the home page; type in the Aboriginal Language you wish to research e.g. ‘Eora’ or Select ‘Eora’ on the Map. On the right hand side, there will be some information about the language group and a reference to the Auslang code. The Eora Nation’s Auslang code is S61. Select this link to find more information about the language from AIATSIS.



First Languages Australia: image source - <https://gambay.com.au/languages/Eora>

FIRST NATIONS PEOPLES

The First Language Map is a starting point when teaching Aboriginal and Torres Strait Islander Languages. Connect with your local Aboriginal and Torres Strait Islander families, groups and communities and or Aboriginal Educational Consultative Group for advice on languages. Another way to search is to select “place names” and search by “language” or “town.”



First Languages Australia: Image Source - <https://gambay.com.au/placenames/Budj-Bim-61>



Image Source - <https://gambay.com.au/teachers/secondary/geography>

Select “teachers notes” and ‘Geography’ for ideas to integrate Aboriginal and Torres Strait languages as a Cross-curriculum priority. There are many teaching strategies provided for K-10. For example:

Kindergarten – Learn the language names of local Aboriginal and Torres Strait Islander places. Locate them on a map.

Year 1 – Examine local Aboriginal and Torres Strait Islander seasons and identify the language terms for the season. Refer to the Indigenous Weather Knowledge on the BOM website.

Year 8 – Investigate the contribution Aboriginal and Torres Strait Islander knowledges and languages has with regards managing landscapes and landforms e.g. Uluru



Image Source: Indigenous Weather Knowledge – Bureau of Meteorology
<http://www.bom.gov.au/iwk/>



D'harawal Calendar. Image Source: <http://www.bom.gov.au/iwk/calendars/dharawal.shtml>

Reference

Gambay – First Languages Map – <https://gambay.com.au/>

Rediscovering Indigenous Languages

The State Library of NSW is making accessible its archives of various documents in relation to Indigenous Languages. The aim of the project is to revitalise and preserve First Nations languages. Presently there are 20 Indigenous languages spoken from the 250 languages that existed prior to colonisation in 1788. Language is linked to culture, land and identity and therefore it is important to document them. Choose a community to view collection items. The language group is mapped according to its general location in Australia. The website is a work in progress where the community is called upon to be involved if they can contribute to the Rediscovering Indigenous Languages project. This is a valuable website that can be used in conjunction with the Gambay – First Languages Map.

FIRST NATIONS PEOPLES



Rediscovering Indigenous Languages – State Library NSW – Image source <https://indigenous.sl.nsw.gov.au/>

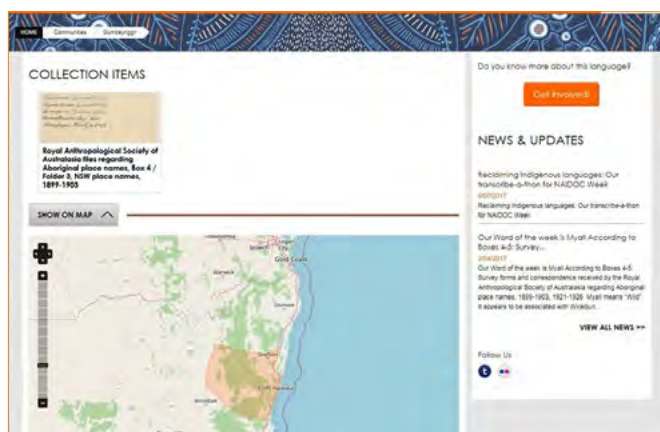


Image source: <https://indigenous.sl.nsw.gov.au/communities/gumbaynggir>

Reference

Rediscovering Indigenous Languages – State Library NSW – <https://indigenous.sl.nsw.gov.au/>

Indigenous Knowledge Institute – The University of Melbourne

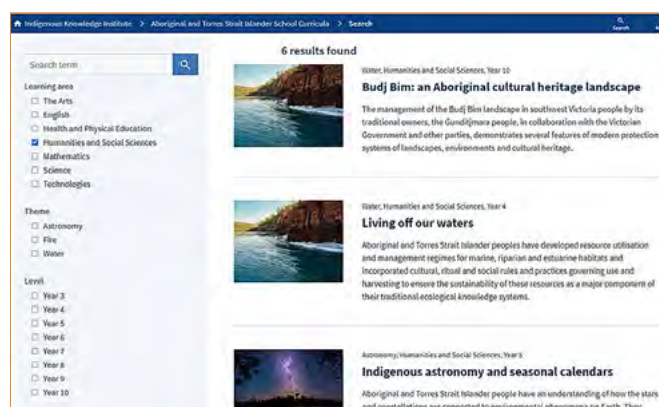
The Indigenous Knowledge Institute is an excellent source of information and provides numerous resources and teaching activities to integrate Aboriginal and Torres Strait Islander Histories and Cultures in the Geography curriculum. Their signature project is **Aboriginal and Torres Strait Islander School Curricula** – <https://indigenousknowledge.unimelb.edu.au/#projects>. There are three themes, Astronomy, Fire and Water.



Image source: <https://indigenousknowledge.unimelb.edu.au/curriculum>

Current resources with learning activities for Years 3–10 include:

- Budj Bim: an Aboriginal cultural heritage landscape
- Living off our water
- Indigenous astronomy and seasonal calendars
- Indigenous astronomy, geography and star maps
- Fire and land management: past and present
- Colonising the landscape



Indigenous Knowledge Institute. Image source: https://indigenousknowledge.unimelb.edu.au/curriculum/search?queries_keyword_query=&search_page_68090_submit_button=&queries_learningarea_query%5B3%5D=humanities

Reference

Indigenous Knowledge Institute, The University of Melbourne – <https://indigenousknowledge.unimelb.edu.au/>



The Aboriginal and Torres Strait Islander School Curricula project used three themes to guide the creation of the resources: Astronomy, Fire and Water.

Image source: <https://indigenousknowledge.unimelb.edu.au/curriculum>



REFLECTION

- Have you ever considered a case study of the Torres Strait Islands when looking to integrate the *Cross-curriculum Priority Area: Aboriginal and Torres Strait Islander histories and cultures*?
- If you provided your students with a map of Northern Australia, could they successfully identify the Torres Strait Islands (TSI) and Australia's border with Papua New Guinea (PNG)?
- Can you answer these questions?
 - a. Who governs the Torres Strait Island (TSI)?
 - b. How far are the TSI from the coast of Papua New Guinea and Queensland?
 - c. What is the population of the TSI?
 - d. How did the islands in Torres Strait form?
 - e. What are the main sources of income for Torres Strait Islanders?
 - f. Name a feature of the physical environment that supports high biodiversity and the livelihoods of many Torres Strait Islanders?
 - g. What environmental changes (natural and human) threaten the future of the islands and the TSI people?
 - h. There is a treaty between Australia and Papua New Guinea. What is the purpose of that treaty?
 - i. What are the main cultural differences between Torres Strait Islander and Aboriginal peoples?
 - j. Describe features of the climate you would expect to experience if visiting the Torres Strait Islands.

SYLLABUS LINKS

Activities to learn about the Torres Straits Islands and Torres Strait Islander peoples can be integrated into most topics for Geography 7–10.

- Landforms and Landscapes – formation of Torres Strait Islands, cultural value of land and marine landscapes, landscape management
- Place and Liveability – access to services and facilities, quality of life, cost of living, environmental quality, social connectedness, cultural identity
- Interconnections – cultural connections to land and sea, trade connections, language
- Human Wellbeing – liveability, GDP per capita, health, cost of living, employment
- Environmental Change and Management – state of the environment, environmental change including climate change, managing land and sea
- Sustainable Biomes – food security, sustainable use of marine biomes

Student Activities: Physical Geography

1. Locate the Torres Strait Islands on a map of Australia. Include latitude, longitude, distance and direction. Figure 1.
2. What does the red line represent on Figure 1?
3. The Torres Strait Islands are an archipelago. What does this mean?
4. Investigate the physical environment of Torres Strait islands using Figure 2, Torres Strait Islands and Reefs and Figure 3 Interactive maps at Torres Strait eAtlas Map Highlights.
Click on any map to start an interactive version, such as shown in Figure 4, and investigate the layers.
https://ts.eatlas.org.au/ts/map-highlights?_ga=2.69450323.233300229.1615698622-1942527912.1615698622

Use the following activities to begin your investigation:

- a. Describe the location and spatial distribution of the Torres Strait Islands.
- b. Use the Torres Strait Bathymetry map and imagery maps to draw a conclusion about the depth of water surrounding the islands and the relief of the islands.
- c. Use the Torres Strait Bathymetry map to draw a sketch map showing the possible location of the land bridge that once joined Australia and PNG. Figure 4.
- d. Using the Inhabited Islands map determine the latitude and longitude of Thursday Island and Mer Island. Calculate the difference in latitude

Figure 1: Location map



Source: <https://www.britannica.com/place/Torres-Strait-Islands>

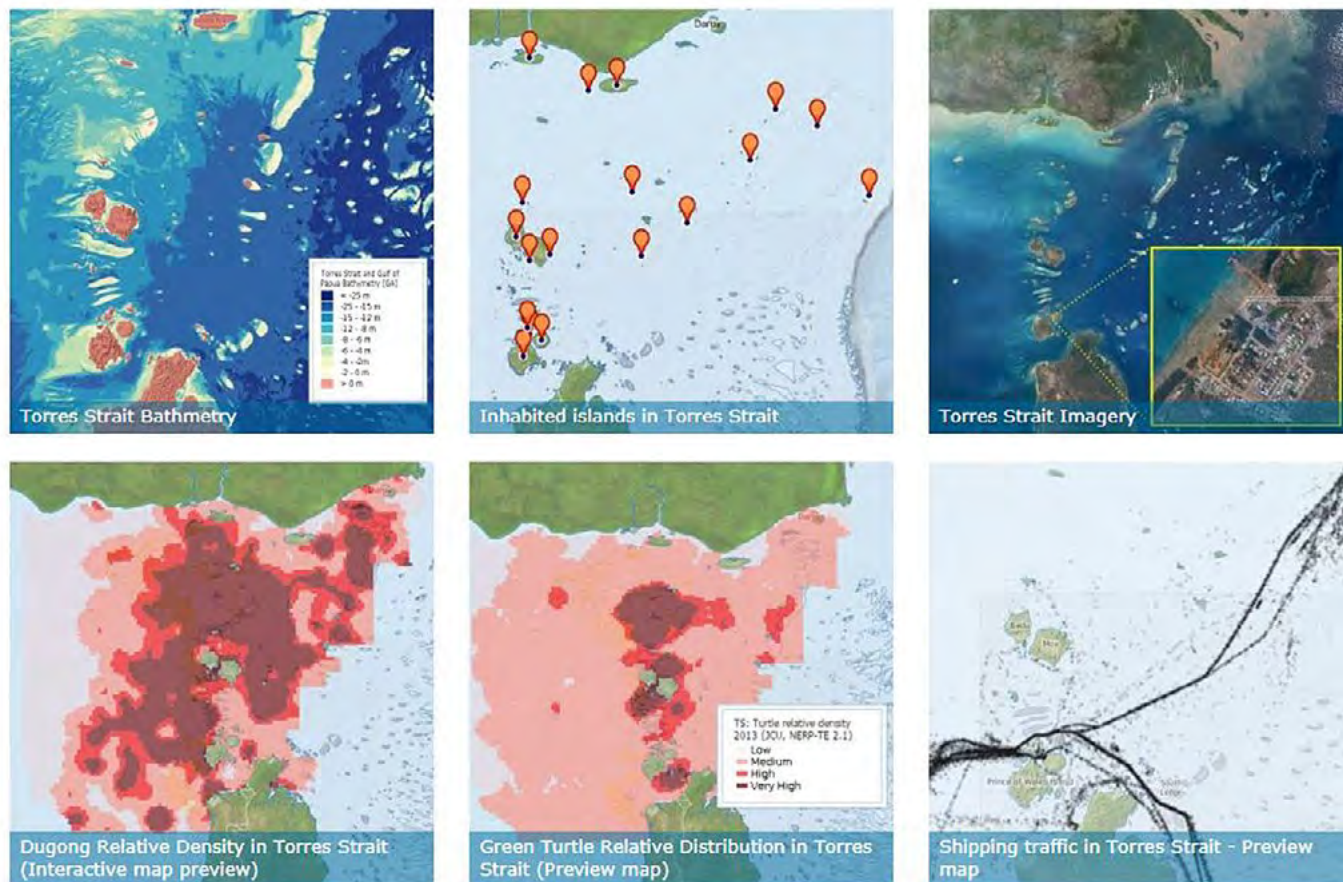
- e. between the two islands and measure the distance between them using the interactive tools.
- e. Use the density and distribution maps for sea turtles and dugongs to describe the areas of highest marine biodiversity.
- f. Explain why the Torres strait Islands and their ecosystems are vulnerable to climate change?
- g. Predict how climate change could impact on the natural environment of the Torres Strait Islands over the next 50 years.
- h. Use Figure 5 to construct a Climatic Graph for Horn Island.

Figure 2: Torres Strait Islands and Reefs Map



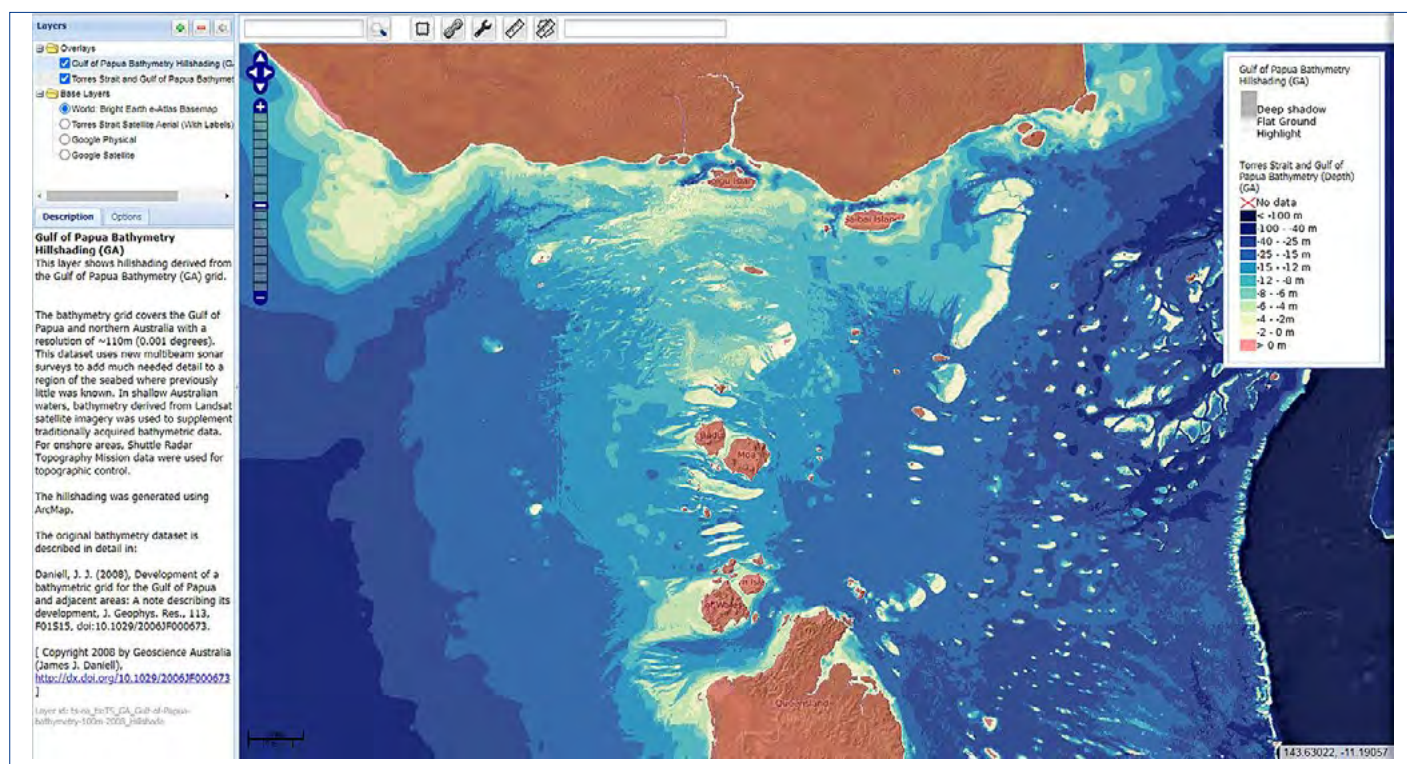
Figure 3: Torres Strait eAtlas map highlights

Click on any of the maps to start an interactive version and investigate the layers in more detail.



Source: https://ts.eatlas.org.au/ts/map-highlights?_ga=2.69450323.233300229.1615698622-1942527912.1615698622

Figure 4: Torres Strait bathymetry



Source: https://ts.eatlas.org.au/ts/map-highlights?_ga=2.69450323.233300229.1615698622-1942527912.1615698622

FIRST NATIONS PEOPLES

Figure 5: Torres Strait Islands climate

The Torres Strait Islands have a tropical climate with hot daytime and warm night-time temperatures all year. The wet season typically lasts from December to April though occasionally rain occurs during the dry season. The climate statistics for Horn Island are typical of the other islands.

Horn Island Latitude: 11 degrees South, Longitude: 142 minutes East; Elevation 4 metres

Climate feature	J	F	M	A	M	J	J	A	S	O	N	D
Mean Rainfall mm	407.5	430.5	350.7	224.4	65.1	14.7	8.9	5.5	5.0	12.9	39.1	174.4
Mean minimum Temperature °C	25.2	25.1	25.1	25.3	24.9	24.0	23.2	23.1	23.9	24.8	25.8	25.8
Mean maximum Temperature °C	30.9	30.6	30.5	30.6	30.1	29.4	28.9	29.1	30.1	31.1	32.0	32.0

Source: http://www.bom.gov.au/climate/averages/tables/cw_027058_All.shtml

See also Figure 10: The Masigalgal Seasonal Calendar

Figure 6: Torres Strait Islands. Land and Sea

Area: Approximately 48 000 km² between Cape York and Papua New Guinea. Of this area 2.6% is terrestrial land, 6.2% tidal reef flats and 91.2% mostly shallow open seas.

Extent: 150 km North to South (narrowest point); up to 300 km East to West. There are more than 100 islands and a multitude of cays, sandbanks and coral reefs scattered through the region.

Formation: The Torres Strait was a land bridge connecting Australia with Papua New Guinea. More than 8,000 years ago world sea levels were about 100 metres lower than today. Since much of the Torres Strait was covered by only 20 metres of water, people at that time could easily walk between Cape York and southern New Guinea. The land bridge was submerged by rising sea levels to form Torres Strait and connecting the Arafura and Coral seas. Many of western Torres Strait Islands are remaining peaks of this land bridge.

‘Geographically, the islands in the Torres Strait can be divided into four main groups: an eastern group of high volcanic islands; a central group of low sandy islands; a western group of high islands composed of volcanic and granitic rocks; and a northern group of low islands composed of mangrove muds and peats.’

Source: <http://www.tsirc.qld.gov.au/our-communities/our-geography>

Marine ecosystems: The islands and their surrounding waters and reefs contain a diversity of land and marine ecosystems, with niches for many rare or unique species. Marine animals include dugongs, the Green, Hawksbill and Flatback sea turtles and saltwater crocodiles. The waters are sustainably managed to support Torres Strait Islanders and the protect the marine environment on which they depend.

Figure 7: People, Community & Culture

Torres Strait Islanders are of Melanesian origin with a distinct cultural identify, traditions, language and history. They believe in Ailan Kastom (Island Custom), the link between the land, the sea, the environment and culture. It is the basis of the Torres Strait Islander people’s way of life.

Culture is strongly based on maritime trade and interactions with coastal communities in Papua New Guinea and Australian. TSI people have an intimate knowledge of the environment, its islands, reefs, weather, tides and currents. The islanders are firstly agriculturalists who supplemented their farming with seafood.

The region has approximately 8,500 people with the size of island communities depending the ability of the environment to support them. A number of different native languages are spoken.

Source: https://www.tsra.gov.au/__data/assets/pdf_file/0005/2012/01-introduction.pdf

FIRST NATIONS PEOPLES

Figure 8: Tagai: the creator

A key figure in the creation stories of the Torres Strait Islander people is the Creator being named Tagai. Tagai, a great fisherman, was out with his crew of 12 on their canoe. They were having no luck catching any fish so Tagai left the group and went searching for fish in a nearby reef. Tagai had left the group for a long time and as the day grew hotter, the remaining crew of 12 became tired and frustrated. They consumed all their own water supplies and eventually drank all of Tagai's water. When Tagai returned and saw his supplies consumed, he flew into a rage and killed all 12 of his crew. He sent six of the crew to Usal (the Pleiades star cluster) and the other six he sent to Utimal (Orion) and there he told them to wait, never to bother him again.

Source: Deadly Story - https://www.deadlystory.com/page/culture/articles/World_s_Indigenous_Peoples_Day/Torres_Strait_Islander_people

Tagai Constellation



Student Activities: Human Geography

1. Refer to Figure 3 Torres Strait eAtlas Map Highlights – https://ts.eatlas.org.au/ts/map-highlights?_ga=2.69450323.233300229.1615698622-1942527912.1615698622
 - a. Using the Torres Strait imagery map describe the spatial pattern of settlement on Thursday Island.
 - b. What can you infer about Thursday Island from the shipping traffic map?
2. Use the following resources to make brief notes about the liveability of Torres Strait Islander communities and the human wellbeing of the Torres Strait Islanders.
 - a. Figures 5, 6, 7, 8, 9 and 10
 - b. Video: *Back Roads: Thursday Island*
 - c. Website: Creative Spirits

ABC Back Roads: Thursday Island

Viewing options:

- Enhance TV: *Back Roads Thursday Island*. Season 2 | Episode 4 | ABC | December 19, 2016 – <https://www.enhancetv.com.au/video/back-roads-thursday-island/34462>
- *Back Roads* ABC iview Season 2 | Episode 4 | ABC | December 19, 2016 – <https://iview.abc.net.au/show/back-roads/series/2/video/FA1527V004S00>
- Clickview – <https://online.clickview.com.au/exchange/categories/290/geography/videos/3466702/thursday-island>

Creative Spirits

<https://www.creativespirits.info/aboriginalculture/people/torres-strait-islander-culture>



Thursday Islands, Inner Group of Torres Strait Islands. Source: http://oceancolor.gsfc.nasa.gov/cgi/landsat_extract.pl?path=99&row=67&x=1244&y=2473&n=0&t=321

3. Use the following weblinks to investigate **Environmental Change and management:**
 - State of the Environment on the Torres Strait Islands – <https://ts.eatlas.org.au/sites/default/files/ts/articles/TSRA%20Land%20and%20Sea%20Strategy%20Table%202.pdf>
 - Land and Sea Management Strategy– <http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/the-land-and-sea-management-strategy-for-torres-strait-2016-2036>
 - Managing islands and sea country – <http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/managing-our-islands-and-sea-country>
 - China's plan to build a fish processing facility in the Torres Strait raises alarm over fishing, border security – <https://www.abc.net.au/news/2020-12-15/trepidation-as-china-prepares-to-move-into-the-torres-strait/12985504>

4. Use these weblinks to investigate the impacts of climate change:
 - For these Torres Strait Islanders, climate change is already here — and they're urging the government to do more – <https://www.abc.net.au/news/2021-04-19/torres-strait-islanders-climate-change-impacts-uninhabitable/100069596?fbclid=IwAR0jkjIRI8T98cPjJZKUm2bGhqrt1D2fNWeWUhx84xGFRTgRC6exyZvpvrA>
 - TIME: The Mayor Fighting to Save Her Island Home from Climate Change – <https://time.com/5572445/torres-strait-islands-climate-change/>
 - Torres Strait Islander complaint against climate change inaction wins backing of UN legal experts – <https://www.abc.net.au/news/2020-12-11/torres-strait-islander-complaint-against-climate-change-inaction/12972926>
 - Torres Strait Island Regional Council Climate Change Adaptation – <http://www.tsirc.qld.gov.au/changing-region/projects/climate-change-adaptation>
 - Climate Change and Torres Strait: Adapting to CC – <http://www.tsra.gov.au/the-tsra/programmes/env-mgt-program/adapting-to-climate-change>

Figure 9: Thursday Island

Location and spatial dimensions

Thursday Island (Wai Ben), also known as TI, is an island of the Torres Strait Islands archipelago in the Torres Strait. Thursday Island is also the name of the town in the southwest of the island, that is the administrative and commercial centre for the Torres Strait Shire and local government area of Torres Strait Island Region.

TI is located approximately 39 kilometres north of Cape York Peninsula in Far North Queensland, covering an area of approximately 3.5 square kilometres. The highest point on Thursday Island is Milman Hill at 104 metres above sea level.

Population and settlement

In the 2016 census, Thursday Island had a population of 2,938 people having been populated for thousands of years by the Torres Strait Islanders, the indigenous people of the Torres Strait Islands. Archaeological evidence suggests that the area has been inhabited from before the end of the last Ice Age.

The European settlement of Torres Strait began at Somerset, on the south-east of Cape York in 1864. Somerset proved too dangerous for a port due to poor channel conditions between the cape and the islands, so the port was transferred to the southern side of Thursday Island. The new port was called Port Kennedy renamed Thursday Island in 1862.

Pearls, seashells and shipping

A profitable pearling industry was once found on the Thursday Island using workers from Asia. The pearling industry has since declined in importance however, a mix of cultures remains. Trochus shells were also harvested and exported to London. In the late-19th and early-20th centuries Thursday Island was a regular stop for vessels trading between the east coast of Australia and Southeast Asia. Thursday Island was also used as the military headquarters for Australian and US forces during World War II,

Town services and facilities

- | | |
|--|--|
| – Sporting complex and gym | – Regional centre for higher education, TAFE Institute |
| – Public library | – K–12 schools including two of 17 island campuses of Tagai State College |
| – Parks and ovals | – Research centre organisations |
| – Community pharmacy, general store, butcher, bank, phones | – Administrative base for the local, state and federal governments. |
| – Catholic Church and primary school | – Torres Straits Pilots base (pilot ships through the Straits and reefs down to Cairns). |
| – Hospital | |
| – Courts | |

Economy today: Islanders are fishermen, agriculturalists, hunters and gatherers. Thursday Island is dependent on its role as an administrative centre, pearling and fishing, and a growing tourism industry and marine pilot base.

Sources: Wikipedia; Queensland government <https://www.qld.gov.au/atsi/cultural-awareness-heritage-arts/community-histories/community-histories-s-t/community-histories-thursday-island>

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Figure 10: The Masigalgal Seasonal Calendar

*Masigalgals, are the people from Masig Island, a small coral cay 160km northeast of Thursday Island with a population of 270 people. **Masig Island** and the surrounding eleven islands within the Masigalgals Native Title determination are part of the Kulkulgals nation of the **central Torres Strait**. They speak Kulkalgau Ya, an endangered dialect of the Kala Lagaw Ya language of the western Torres Strait.*¹

The Masigalgal Seasonal Calendar is based on Traditional Ecological Knowledge (TEK) with input from Masigalgal elders and Rangers. It aims to preserve the traditional seasonal knowledge of Masig elders and promote the preservation of Kulkalgau Ya language.



Image source: <http://www.bom.gov.au/iwk/images/Masig/MasigHiRes.jpg>

The calendar shows **four distinct seasons**: Naigai, Zei, Kuki and Woerr. The timing and duration of the seasons varies. Natural signs in the wind, weather, sea life, plants and animals tell islanders when season will change. Islanders harvest and use a variety of resources from land and sea in all seasons.

Community celebrations, hunting, gardening and cultural activities are based around this annual cycle of resource availability and renewal.¹²

Masigalgal reliance on natural resources continues. The conservation philosophy is based on Gud Pasin and Mina Pawa (good ways and appropriate behaviours) – respecting the wisdom and knowledge of the elders. It is important that the wisdom and knowledge of their ancestors is passed down to younger generations to keep Masig culture rich and strong into the future.



Masig is a very small low-lying coral cay in the Central Islands Cluster of the Torres Strait about 160km northeast of Thursday Island. The topography of Masig is very flat with ground level generally less than three metres above local mean sea level. More than half the Island is covered in undisturbed vegetation including dense trees on the eastern and western parts of the Island. Native Title is recognised over Masig and is held in trust by the Masigalgal (Torres Strait Islander) Corporation.

Image source: <https://www.flickr.com/photos/ailanpair/504297393>

1. Bureau of Meteorology: Indigenous Weather Knowledge <http://www.bom.gov.au/iwk/>
2. Bureau of Meteorology: Indigenous Weather Knowledge <http://www.bom.gov.au/iwk/>

LANDSCAPES & LANDFORMS

OREO PLATE TECTONICS



Background image: Wikimedia Commons – Öxarárfoss_in_Thingvellir_(42938068150).jpg

Oreos image Source: <https://miningmatters.ca/resources/gems---diy-activities>

STEM Resource: Using Oreos to demonstrate Plate Tectonics

Christina Kalinic and Katerina Stojanovski, Stella Maris College

Make learning about plate tectonics exciting by introducing food to demonstrate the different types of plate boundaries. To begin with, provide students with an overview of the earth's layers and introduce the concepts of plate tectonics, convergent, divergent, transform boundaries and subduction zones. Use Oreo cookies to demonstrate, convergent, divergent and transform boundaries and subduction zones.

Sliding Plate Over Asthenosphere



a. Divergent Plate Boundary



b. Convergent Plate Boundary



c. Transform Plate Boundary



Access this link for a short YouTube explanation on how to conduct the Oreo Plate Tectonics activity – <https://www.youtube.com/watch?v=3p5RW-t--QA>. Issue the worksheet “Using Oreos to demonstrate plate tectonics” to students. Working in pairs, students can demonstrate each type of plate boundary to their partner. When they have finished, they can eat their Oreo biscuit.

Mining Matters <https://miningmatters.ca/resources/gems---diy-activities> has additional practical STEM resources to support the teaching of Stage 4 Landscapes and Landforms. Two other relevant and engaging activities that could be integrated in Landscapes and Landforms are *Edible Earth Layers and Folding* and *Faulting*.

Image Source: <http://dusk.geo.orst.edu/oceans/Oreo-Cookie.pd>

OREO STUDENT WORKSHEET

Using Oreos to demonstrate plate tectonics

AIM: To demonstrate how tectonic plates shift and interact.

MATERIALS: 1x Oreo cookie per student

METHOD:

1. Label the layers of an Oreo cookie – *lithosphere (crust), asthenosphere (mantle), core*



2. Remove the crust (top Oreo cookie) – *try to keep the filling intact.*
[Hint: twist the Oreo cookie to remove it in one piece]

3. Break the crust into two even pieces.

Complete these sentence stems:

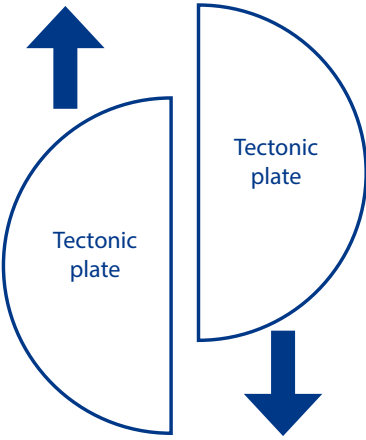
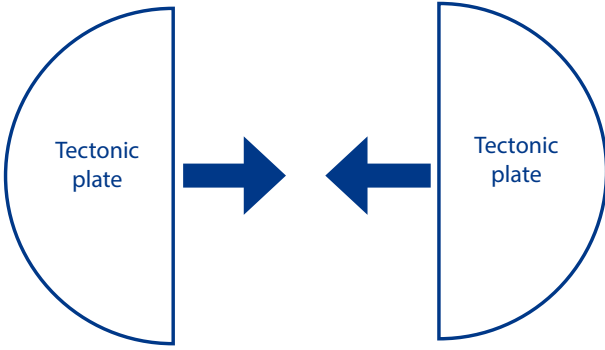
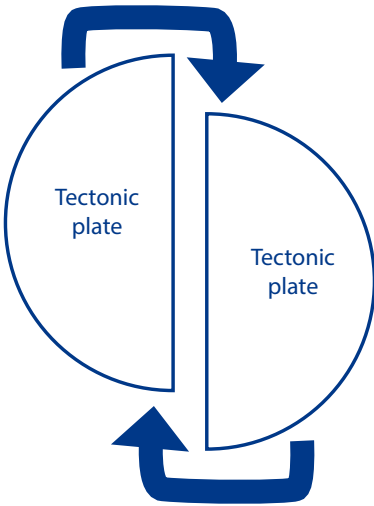
The two pieces of the crust represent... _____

The gap between the two pieces is a ... _____

4. Work in pairs. Demonstrate the following plate boundaries to your partner, using your Oreo:

PLATE BOUNDARIES	DEMONSTRATION
Divergent Boundary	<p>Pull the two plates away from each other</p>

OREO STUDENT WORKSHEET

<p>Transform Boundary</p>	<p>Slide the two plates against each other (this can create earthquakes!)</p> 
<p>Convergent Boundary</p>	<p>Push the two plates together. Push the two plates gently into the icing to create a mountain range.</p> 
<p>Subduction</p>	 <p>Push one of the two plates into the icing below the other piece.</p>

5. Enjoy eating your Oreo cookie!

References

- Lillie, R., 2021. *Fun with Food! Plate Tectonics and our National Parks*. [online] Dusk.geo.orst.edu. Available at: <http://dusk.geo.orst.edu/oceans/Oreo-Cookie.pdf> [Accessed 13 April 2021].
- Mining Matters. 2021. *GEMS – DIY Activities*. [online] Available at: <https://miningmatters.ca/resources/gems---diy-activities> [Accessed 13 April 2021].
- Youtube.com. 2021. *Oreo Cookie Plate Tectonics – Savage Science At Home Week 4 DEMO*. [online] Available at: <https://www.youtube.com/watch?v=3p5RW-t--QA> [Accessed 13 April 2021].



Assessment task

David Latimer, Fort St High School

The Interconnections unit of the K–10 Geography syllabus gives teachers and students an exciting opportunity to explore the connections that link our lives to people living all around the globe. The products we buy and use, and the actions we undertake, link us with people in some of the most distant parts of the world through trade. What's more, new communication technologies allow us to interact with people with increasingly less fictional effects from distance.

In my school context, we wanted to find an assessment task that would enable a range of conversations about these links and allow students to explore the commodity chains associated with a range of consumer items in Australia. As a group of teachers, we were familiar with the environmental and ethical issues of resources like coltan, palm oil, cotton, cocoa and lithium, so we wanted an assessment task that would allow students to demonstrate that they could make the connections between the items they buy, and the positive and negative impacts felt around the globe.

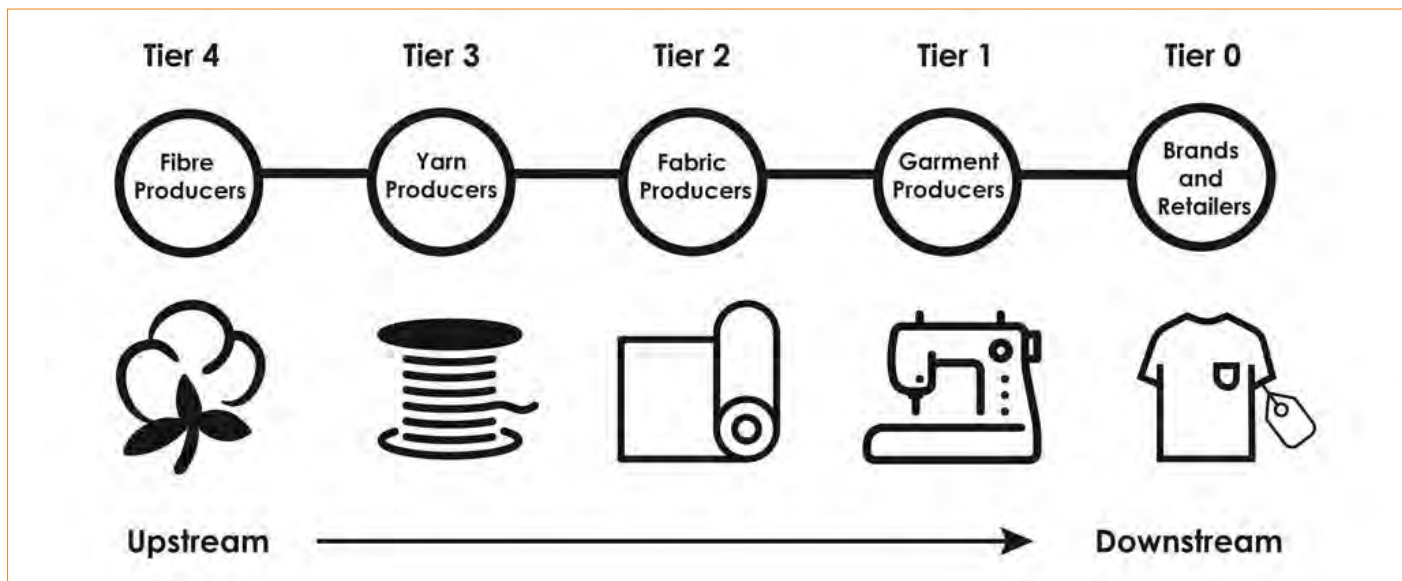
The assessment uses student research to produce a scaffolded report. The report format combines both visual mapping exercise with literacy skills to create a strongly geographical style of communication being assessed. As students are allowed to bring two photos in to support their response there are also some photo

skills being demonstrated in this task. However, the critical literacy resulting from students developing their understanding the perspectives and connections between people and places is really the main aim of this task.



Garment manufacturing, Pakistan. Source: [https://commons.wikimedia.org/wiki/File:USAID%27s_Firms_Project_\(10587583886\).jpg](https://commons.wikimedia.org/wiki/File:USAID%27s_Firms_Project_(10587583886).jpg)

INTERCONNECTIONS



GTA NSW & ACT has also produced a new poster resource “Minerals in a Smartphone” which would act as a valuable research source and a model for the finished product expected of students. This assessment gives teachers an opportunity to extend classroom discussions from the impacts of commodities into areas like raw material certification or models of circular or ethical consumption. Moreover, as so much of Australia’s trade occurs with Asia, the task can easily be adapted to meet the Asia and Australia’s Engagement with Asia topic.

1 BORAX: BORON
An alloy of boron, neodymium and iron is used to make the strong permanent magnets used in the speakers, headphones and in the vibration unit of a smartphone. Turkey and USA are the largest producers of boron.

2 PALLADIUM (native)
Palladium is used in smartphone electrical circuits and contacts. Palladium can be found in its elemental form or alloyed with other platinum group metals (e.g. platinum and iridium) or with iron. Palladium is largely obtained as a by-product of copper and nickel mining. Russia and South Africa currently produce most of the world's palladium.

3 WOLFRAMITE: TUNGSTEN
The stability and high melting temperature of tungsten means that it can be used in smartphones for electrical connections and to absorb and redistribute excessive heat. Wolframite and scheelite are ore minerals used for tungsten. Wolframite is considered to be a conflict mineral due to unethical mining practices in the Democratic Republic of Congo. The top producers of tungsten are China (over 80% of world production), Vietnam and Russia.

4 GRAPHITE: CARBON
Graphite conducts electricity and is heat resistant. It is used as a negative electrode in smartphone rechargeable batteries. Graphite is a naturally occurring allotrope of carbon which can be found in metamorphic rocks, igneous rocks and in meteorites. China produces almost all of the world's graphite, with smaller quantities coming from India.

5 QUARTZ: SILICON
The processor in a smartphone, the brain that can respond to instructions, is made from thin layers of silicon. A mixture of silica with alumina is used to manufacture smartphone glass screens. Potassium also helps to strengthen the screen. Silicon is largely sourced from quartzite or quartz sand. China is by far the world's largest producer of silicon, followed by Russia and Norway.

6 MONAZITE: RARE EARTH ELEMENTS
The mineral monazite is extremely important as a source of rare earth elements (REEs). REEs are used in small amounts in smartphone electrical circuitry, vibration units, speakers, glass polishing and to make the vivid colours in smartphone displays. Currently more than 90% of the world's REEs come from China.

7 CASSITERITE: TIN
Tin is used in smartphones for soldering different metal components together. Tin is also used with indium to make indium tin oxide, a thin, transparent and electrically conductive material used to make touchscreens. The most important source of tin is from the ore mineral cassiterite. The current leading producers of tin are China, Indonesia and Myanmar.

8 GOLD (native)
Tiny amounts of gold are used in smartphone circuit boards as gold is a very stable element and a conductor of electricity. Gold is usually found in its elemental form in alluvial placer deposits or associated with hydrothermal veins. The current leading producers of gold are China, Australia and the USA.

9 BAUXITE: ALUMINIUM
Aluminium is one of the most abundant elements found in a smartphone. It's in the outer case, battery case, circuit board, glass screen and even in the camera lens as a synthetic sapphire glass almost as hard as diamond. Almost all aluminium we use comes from bauxite ore. Currently Australia, China and Brazil are the leading producers of bauxite.

10 SPODUMENE: LITHIUM
Lithium is used in lithium-ion batteries, the rechargeable batteries found in smartphones and most other electronic devices. Lithium can be extracted from lithium chloride salts found in brine pools. Most of the world's lithium brines come from Chile and Argentina. The minerals spodumene, petalite and lepidolite are also commercially viable sources. Australia is the current leading producer of spodumene.

11 TANTALITE: TANTALUM
Tantalum is used to manufacture the anodes in smartphone capacitors, the components that store electrical charge. The current leading producers of tantalum are the Democratic Republic of Congo, Rwanda and Brazil. The mining of tantalum has caused extensive social and environmental problems in the Democratic Republic of Congo and is recognised as a conflict mineral.

12 CHALCOPYRITE: COPPER
Copper's high electrical and heat conductivity make it ideal for use in the electrical wiring of a smartphone. Chalcocopyrite is the most important ore mineral for copper, but copper can also be found in other minerals as well as in its elemental form. Chile, Peru and China are currently the largest producers of copper.

13 SPHALERITE: ZINC
Zinc is used in smartphone circuit boards and when alloyed with aluminium can increase the strength of smartphone cases. Almost 95% of all zinc we use comes from sphalerite ore that contains trace amounts of indium and gallium important for making screens, touch sensitive. Most of the world's sphalerite comes from China, Peru and Australia.

14 BERYL: BERYLLIUM
Beryllium is used to make battery contacts and electrical connectors in smartphones. Beryllium is extracted from ores with the current leading producers being USA, China and Mozambique.

Did you know that your smartphone is a mine of precious metals and rare elements? In fact, the average smartphone uses 75 out of the 81 stable (non-radioactive) elements in the periodic table, 62 of which are metals. All elements in a smartphone, both rare and abundant, come from minerals, usually from metal ores, which must be located, extracted, processed and refined. A small, but growing, proportion of smartphone metals come from metal recycling. With an ever increasing demand for smartphones and concerns over supply security as well as environmental and social issues, innovative technologies are required to source and extract minerals and to use them more efficiently.

MINERALS IN A SMARTPHONE

The Geological Society of Australia
serving science, profession & society

Mineral resources data compiled from Bureau of Mineral Resources, 2012-16. Global Geoscience Society's contribution.

Minerals in a Smartphone poster available from <https://www.gtansw.org.au/order-resources/>

Interconnections – Stage 4 Geography

Assessment Task

HSIE Department

Date of issue:	n/a
Weight:	30%
Course:	Geography
Task number:	2

Due date:	n/a
Nature of task:	In-class Writing Task
Topic:	Interconnections (Stage 4 Geography)
Year group:	Year 8

Outcomes Assessed:

- GE-1 locates and describes the diverse features and characteristics of a range of places and environments.
- GE4-3 explains how interactions and connections between people, places and environments result in change.
- GE4-4 examines perspectives of people and organisations on a range of geographical issues.
- GE4-7 acquires and processes geographical information by selecting and using geographical tools for inquiry.
- GE4-8 communicates geographical information using a variety of strategies.

Assessment Location

- Students will complete the assessment in their regular classroom.
- Specific learning needs adjustments: Student will be supplied with a scaffolded version where appropriate.

Academic honesty and extensions on due dates

Students are reminded that all work submitted for assessment must be original and one's own work, except where acknowledgement is made to the original author (using the APA referencing method) or where collaboration with another student is a mandated requirement of the task. Students must submit any Hand-In assessment through Turn-it-in in order to validate the authenticity and integrity of the student's material.

The school's assessment policy requires all extensions on the due date be coordinated by the Director of Curriculum. Students applying for leave will be required to complete the task on the due date or, if this is not possible, before the due date unless there are exceptional circumstances.

The school applies a standard penalty for late submission of assessments of 10% of the total per day.

Interconnections – Stage 4 Geography

Context and description of assessment activity

Geographies of interconnection demonstrate how people and their product choices and/or actions, are connected to places throughout the world in a variety of ways. Interconnections help to change people, places and their environments on a global scale.

In this assessment task, students will select and research the impacts resulting from the life cycle of ONE PRODUCT and produce a visual report. Students may select from the products listed in the boxes below. Students should investigate the impacts on people, places and environments resulting from the supply chain of the selected product. Students may present information from the products raw materials, through to its production, consumption and its disposal.

Phone (iPhone)	Cars (Tesla)	Snacks (Tim Tam)	Clothing (Levi Jeans)
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In-Class Visual Report

In a 45-minute period, students will write an introduction about their product and annotate a world map with detailed descriptions about the impacts of a product on people, places and environments. The annotations that students make can also refer to two relevant 10cm x 10 cm photographs that students may bring into the assessment.

Students will be provided with an A3 scaffold for this visual report.

Students will be required to locate their annotations on a political world map using an appropriate legend. Students should describe two impacts on each of the topics of people, places or environments. It would be ideal if these descriptions cover the entire life cycle of a product from raw material production through to disposal.

Performance criteria for assessing learning

Students will be marked on the quality of geographic detail and the clarity of their communication of geographic ideas.

Feedback

Verbal feedback may be given to students to aid their research prior to the task submission.

An annotated marking criteria and annotations on the task will be presented with the task when it is returned.

This assessment task has been included in the Appendix.

Interconnections – Stage 4 Geography

	A Grade Extensive knowledge and very high competence	B Grade Thorough knowledge and high competence	C Grade Sound knowledge and adequate competence	D Grade Basic knowledge and Limited competence	E Grade Elementary knowledge and very limited competence
GE-1 locates and describes the diverse features and characteristics of a range of places and environments.					
GE4-3 explains how interactions and connections between people, places and environments result in change.					
GE4-4 examines perspectives of people and organisations on a range of geographical issues.					
GE4-7 acquires and processes geographical information by selecting and using geographical tools for inquiry.					
GE4-8 communicates geographical information using a variety of strategies.					

Interconnections – Stage 4 Geography

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Figure A.

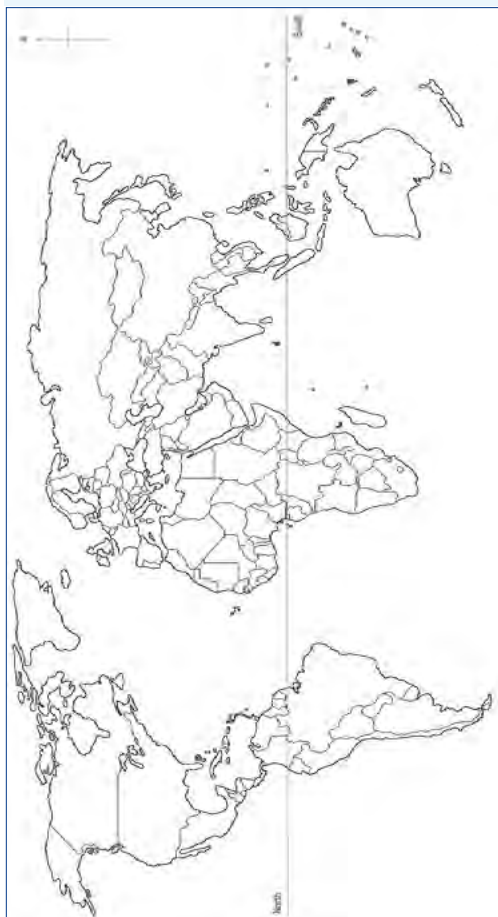


Figure B.

People

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RETELL THE NEWS

Stimulus based classroom activity

Lorraine Chaffer, Geography Education Consultant

TASK

This is NOT a research activity. It is a stimulus activity in which you will work in a small group to retell a NEWS STORY from early 2021.... in your own words using only your recall of the event.

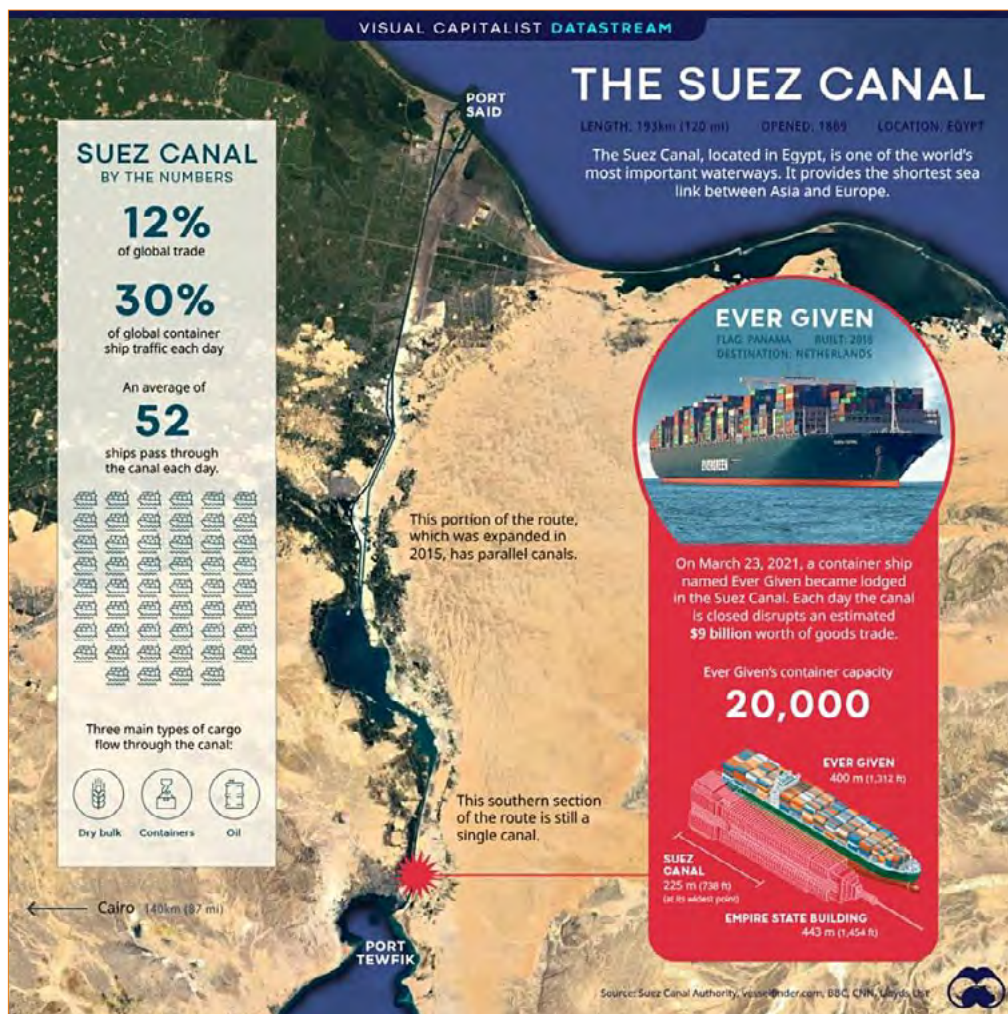
PART A: Group Task

1. Use the following infographic and map to retell the news story of EVERGIVEN. Your news report should contain the following information:

- An appropriate title
- The location
- The incident
- The problem
- The solution
- A link to the Interconnections topic



Map: of Egypt. Image source: Shutterstock



- As a group, discuss the incident and develop a NEWS REPORT of under 300 words. This can be done using digital collaboration tools or on paper.
- Each group will share their STORY orally with the class.

From: The Suez Canal: A Critical Waterway Comes to a Halt (Visual Capitalist.)

RETELL THE NEWS Stimulus based classroom activity

PART B: Individual Task

After listening to the reports of all class groups YOU will:

- MAKE a digital copy of your group report.
- READ the following media excerpts.
- ADD new details and make your own changes to the group report. (Make it yours)
- FIND a relevant photograph and map to illustrate your story.
- GRAPH the statistics in the table below to insert into your report.
- SUBMIT your illustrated report as a digital file. Credit all sources.

What is the Suez Canal?

Constructed in 1869, the Suez Canal is an Egyptian sea-level waterway that provides a vital shipping route between Europe and Asia. Without this route, ships would need to sail around Africa, adding an entire week to their trips.

The connecting link between two important regional economies, the canal facilitates a significant amount of trade. The Suez Canal Authority (SCA) reported that 19,000 vessels – averaging to 52 a day – had sailed through its waters in 2020.

Year	Number of Vessels	Amount of Cargo (Tons)
2011	17,800	692M
2012	17,224	740M
2013	16,596	754M
2014	17,148	822M
2015	17,483	823M
2016	16,833	819M
2017	17,550	909M
2018	18,174	983M
2019	18,880	1,031M
2020	18,829	1,170M



The total volume of cargo being transported through the canal has increased steadily in recent years. This includes consumer goods, dry-bulk cargo such as grain and minerals, and oil products.

Implications of the Blockage

*The blockage of such an important shipping route is bound to have consequences. According to Lloyd's List, each day the Suez Canal is closed disrupts over **\$9 billion** worth of goods trade. European officials have also voiced concern about longer-term impacts, particularly after the blockage is cleared. A sudden influx of ships could cause massive congestion at European ports and further disrupt supply chains.*

Source: Visual Capitalist <https://www.visualcapitalist.com/suez-canal-critical-waterway-comes-to-halt/>



Suez Canal, Port Said. Source: Wikimedia Commons

Suez Canal, Egypt. Source: Wikimedia Commons

HUMAN WELLBEING

1 DOLLAR POVERTY

4 Guys | 28 Days | 1 Dollar

Stage 5 Human Wellbeing:

1 DOLLAR POVERTY – 4 Guys – 28 Days – \$1

Christina Kalinic, Stella Maris College

The 28 minute documentary *1 Dollar Poverty* (2012) tells the story of how four men from Philadelphia USA went to live in Haiti after the disastrous earthquake in 2010. Their residence was tent city in Port-au-Prince and they survived on \$1 a day for 28 days. The men developed a real empathy for the Haitian people as they attempted to survive on the same rations.

1 Dollar Poverty (2012) is suitable viewing for Stage 5 Human Wellbeing. The worksheet has pause points where you can STOP and DISCUSS with students. A range of instructional verbs have been incorporated in the questions. Extension activities are included to extend the top students. This documentary is highly regarded amongst the students as they develop an understanding of the challenges the people in Haiti face in overcoming poverty.

The Haiti Earthquake in 2010 resulted in 300 000 deaths, hundreds of thousands injured and 1.5 million people were homeless (Savard, Sael and Clormeus, 2020).

Haiti is located in the Caribbean, sharing a border with the Dominican Republic on the east.



Image source: <https://www.worldatlas.com/maps/haiti>



Image source: <https://www.worldatlas.com/maps/haiti>

Magnitude 7 Earthquake – Haiti Region (USGS)



Image Source: <https://earthquake.usgs.gov/earthquakes/eventpage/usp000h60h/map?dyfi-responses-10km=true&shakemap-intensity=false>

A building collapsed amongst the rubble in Port-au-Prince

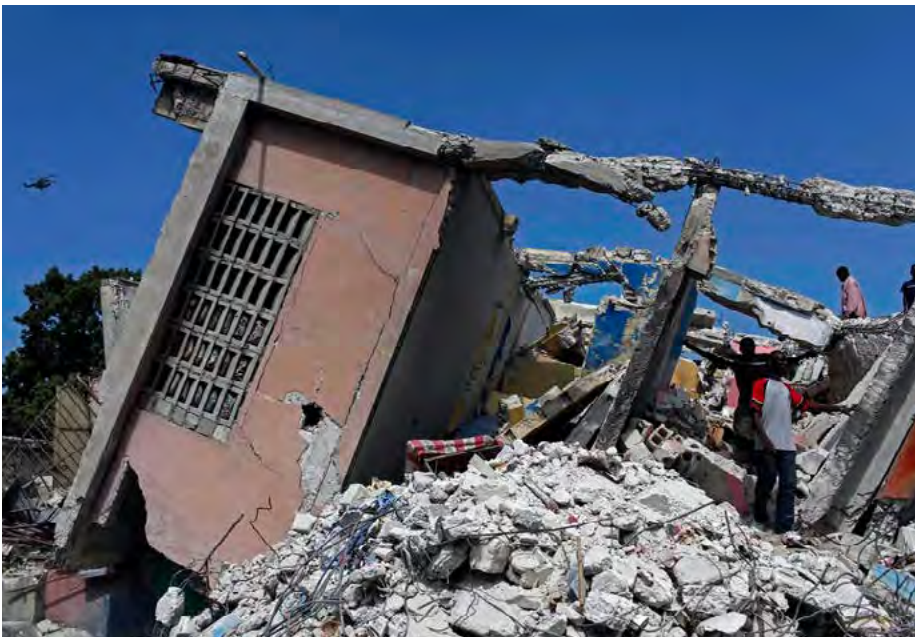


Image Source: <https://theconversation.com/a-decade-after-the-earthquake-haiti-still-struggles-to-recover-129670>

Dr John Buchanan's article *Whose fault? Port-au-Prince, Haiti* (2018) http://www.gtansw.org.au/files/geog_bulletin/2018/1_2018/06_%20GTANSW%20Bulletin%20Issue%201%202018_Illustrative%20study_Port%20au%20Prince%20Haiti.pdf is a comprehensive case study of the Haitian earthquake which can be used in conjunction with the documentary *1 Dollar Poverty* (2012). The article is good background reading for teachers. There are eight engaging student activities included. This topic can be delivered in Stage 4, Interconnections, Place and Liveability and Natural Hazards as well as Stage 5 Human Wellbeing.

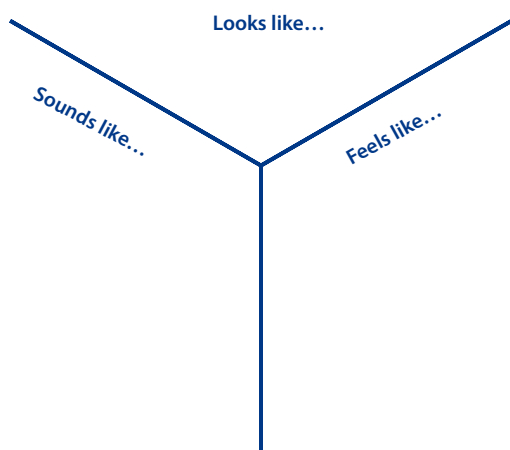
References

- Earthquake.usgs.gov. 2015. [online] Available at: <https://earthquake.usgs.gov/earthquakes/eventpage/usp000h60h/dyfi/intensity> [Accessed 15 April 2021].
- Savard, J, Sael, E. and Clormeus, J., 2020. *A decade after the earthquake, Haiti still struggles to recover*. [online] The Conversation. Available at: <https://theconversation.com/a-decade-after-the-earthquake-haiti-still-struggles-to-recover-129670> [Accessed 15 April 2021].

Student worksheet: 4 Guys – 28 Days – \$1

TASKS

Complete the Y-chart while viewing... <https://www.youtube.com/watch?v=VGeFpz10baw>



1. Identify the geomorphic hazard that struck Haiti.
2. Record two (2) examples of quantitative data that highlights the impact of the geomorphic hazard on Haiti.

STOP AND DISCUSS!

Why might living in poverty be a good first step in helping those less fortunate?

3. List the six (6) rules the four men decided to live by.

STOP AND DISCUSS!

On average, how much money would you need to survive per day?

4. Briefly describe Monfred's experiences AND current housing situation.
5. How much water is required for one person living in the Haitian climate?

EXTENSION

Convert your answer into litres:

6. Outline the four men's typical daily meal(s) and average cost.
7. Haitian NBA player Samuel Dalembert offers his perspective of how Haitian people cope with feeling hungry. Outline his perspective.
8. Make ONE quantitative AND qualitative statement about Cite Soleil (Sun City).

QUANTITATIVE:

QUALITATIVE:

STOP AND DISCUSS!

The greatest problem in Haiti was not the earthquake itself- it was poverty. Why is poverty the greater challenge?

9. Outline the health and hygiene of the four men.
10. How long does it take to wash ONE item of clothing?
11. How long does a typical meal in Haiti take to prepare?
12. Describe the impact the rain season has on a Haitian's daily life.

STOP AND DISCUSS!

Can a person "just work harder" to get out of poverty? Why/Why not?

13. Briefly outline Bennett the rubble workers' home life.

Student worksheet: 4 Guys – 28 Days – \$1

14. Briefly outline the occupation of a 'box carrier'.

EXTENSION

How heavy is a typical box?
Convert this into kilograms:

15. Margalia, a mother of four cannot afford to educate her children.

- Identify how Margalia's child Marvid spends his day.
- Explain the impact a lack of education will have on a child's future.

16. a. How many Haitian children attend primary school?

b. How much does this cost per month?

17. According to the local school principal, what impact did the earthquake have on the school and its students?

18. Briefly describe the conditions of the Haitian hospital. [Make specific reference to the number of Haitians who have access to basic healthcare]

19. Describe the attitudes of the Haitian people despite living in difficult circumstances.

20. Outline how these four men have spread the word of poverty since their 28-day experience.

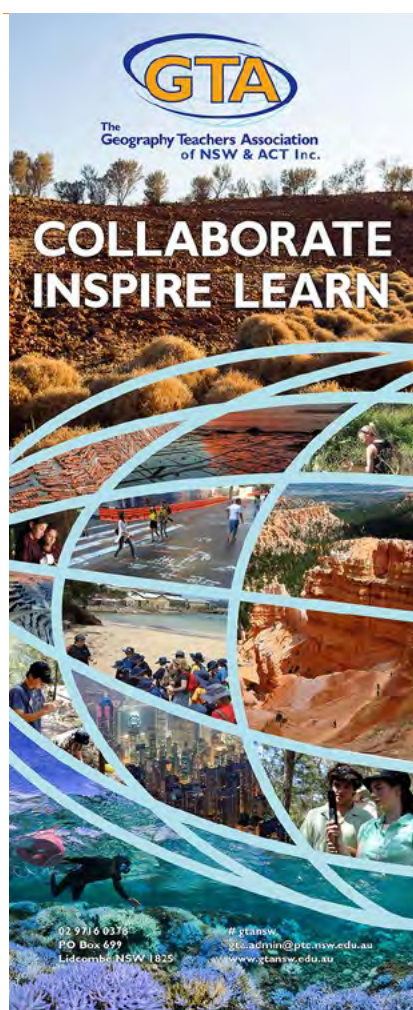
21. Identify several examples for how these four men with the support of others have made a difference to the people of Haiti.

22. List three (3) ways you as an individual can help immediately.

"The world is very different now for man holds in his mortal hands the power to abolish all forms of human poverty"

~ John F. Kennedy

This student worksheet has been included in the Appendix.



GTA NSW & ACT Support for teachers in 2021

- Annual Conference Digital PL package
- HSC Exam Preparation package
- Webinar Program Terms 3 & 4
- Online Learning Courses for flexible, affordable professional learning.
- Geography Bulletin – 4 Editions plus 1 Special HSC Edition
- Geography Bulletin Guide to assist in finding resources
- Classroom Posters and activities via GTA NSW & ACT website
- Young Geographer Awards
- Ask a question via the GTA NSW & ACT website button at the bottom of the homepage
- Facebook Page
- Facebook Groups – Teachers of HSC Geography in NSW and Primary Teachers
- Scoop.it Ten topic pages for Geography K–12.

HUMAN WELLBEING



Image Source - https://www.aljazeera.com/wp-content/uploads/2020/02/b1821dc162a544139f59ba318604b2e3_18.jpeg?resize=770%2C513

Stage 5 Human Wellbeing: *Queen of Katwe* (2016)

Christina Kalinic, Stella Maris College

Queen of Katwe (2016) is the story of 10 year old Phiona Mutesi who lives in poverty in the slums of Uganda. She sells maize in the streets to support her family. She has a chance to escape poverty when she learns how to play chess and ends up competing internationally.

Queen of Katwe (2016) shows the struggles people face living in extreme poverty including lack of access to the basic necessities in life such as food, shelter, water and sanitation. The desire to escape hunger and poverty to provide a better life for oneself and family is an aspect that everyone living in poverty can relate to.

Uganda is a land locked country located in Central Africa. It shares a border with the Democratic Republic of Congo, South Sudan, Kenya, Tanzania



Uganda Location. Image Source: <https://www.worldatlas.com/maps/uganda>

Map of Uganda



Uganda . Image Source: <https://www.worldatlas.com/maps/uganda>

Activity

Using the information in the Key Facts from the World Atlas, complete the table comparing Uganda and Australia.

Key Facts	Uganda https://www.worldatlas.com/maps/uganda	Australia https://www.worldatlas.com/maps/australia
Country		
Capital City		
Population		
GDP		
GDP Per Capita		

Queen of Katwe (2016) image sources:

ABC News – <https://abcnews.go.com/International/phiona-mutesi-queen-katwe-rises-uganda-slums-inspirational/story?id=42206223>

Google Earth – <https://www.google.com/earth/>

Queen of Katwe (2016) via ClickView Exchange at: <https://online.clickview.com.au/exchange/videos/6873178/queen-of-katwe>

Student worksheet: *Queen of Katwe* (2016)

BEFORE VIEWING:

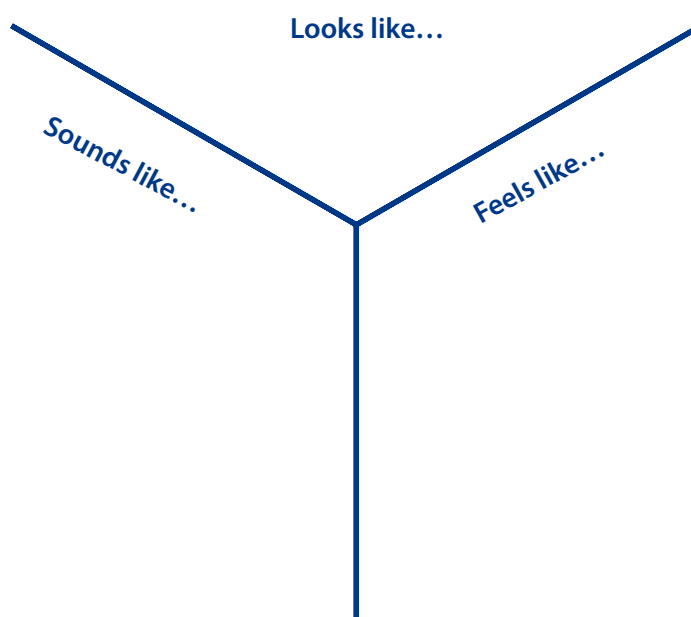
Katwe is the largest of eight slums in Kampala, Uganda.

GOOGLE EARTH:

1. Launch **Google Earth** at: <https://earth.google.com/web/> to visit Katwe, Kampala, Uganda.

2. Change to **Street View** by clicking on . 

Take a virtual walk along the main streets and record your observations in the Y-chart below.



Disney's *Queen of Katwe* (2016) is based on a true story.

THE TRUE STORY BEHIND *QUEEN OF KATWE* (2016)



TASKS

Watch and/or read ABC News' Phiona Mutesi, 'Queen of Katwe', Rises from Uganda Slums to become Inspirational Chess Prodigy at: <https://abcnews.go.com/International/phiona-mutesi-queen-katwe-rises-uganda-slums-inspirational/story?id=42206223> to complete the following questions.

1. How old was Phiona Mutesi when she first saw people play chess? What were her initial thoughts surrounding chess?
2. Why did Phiona and her family become homeless in Katwe?

Student worksheet: *Queen of Katwe* (2016)

3. How does Phiona describe Katwe?
4. Record TWO quantitative facts about poverty and access to education.
5. Recount Phiona's experiences while at the SOM Chess Academy.
6. What was one of the most important things Phiona gained from playing chess?
7. What are Phiona's future aspirations?



WATCH *Queen of Katwe* (2016) via ClickView Exchange at: <https://online.clickview.com.au/exchange/videos/6873178/queen-of-katwe>.



WHILE VIEWING:

1. [3:06] Describe the marketplace – how is food purchased/bargained for?
2. a. [5:26] What does the Mutsei family sell to earn money?
- b. [6:32] Describe how the Mutsei children sell their produce?
- c. [6:47] What other goods or services are offered in this environment?
3. [7:26] Why do some of the children refuse to play football?
4. a. [9:18] Where do children go to play chess? What else is offered to children at this location?
- b. [10:317 & 13:12] Why do the other children respond negatively to Phiona?
5. [14:34] Why do Phiona and her brother not eat their dinner? What does their mother suspect they have eaten?



6. [15:30] STOP AND DISCUSS:
"In chess, the small one becomes the big one. That's why I like it."
 What do you think the statement above symbolises for the young girl?
7. [16:50] Outline the children's perceptions of God since their father passed away.
 - Phiona
 - Night
8. a. [17:24] The Chess coach asks the children about their strategies to fetch water each day. Outline their water fetching strategies.
- b. [17:55] How does the Chess coach use this analogy to teach the children about chess?



9. a. [2:50] How do the boys at the Chess group respond to Phiona winning a game of chess?
- b. Phiona cannot read. Therefore, how did she learn to be so strategic in chess?

Student worksheet: *Queen of Katwe* (2016)

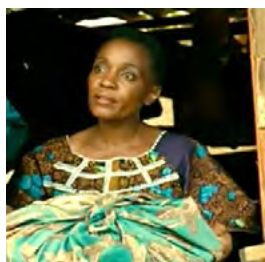


- 10.a. [24:28] Why are the “slum children” not welcome at the upcoming chess tournament at King’s College?
 - b. How does the Chess coach get the money to pay for the chess tournament fees?
Why is his wife upset by this?
11. a. [31:15] Why does the Mutsei children’s mother remove her children from the chess group?
 - b. [32:08] The children are able to return to chess. How does the chess coach convince their mother?



12. [35:00] Describe the underprivileged children’s reactions to King’s College.
13. [37:26] On the morning of the chess tournament, the chess coach finds some of the children distressed. To calm the children, he gives an analogy. Outline the analogy he used and explain its meaning.
14. [40:50] How does the privileged student react to shaking Phiona’s hand?
15. [45:20] How does the Ugandan Chess Federation describe Phiona’s chess technique?

16. a. [48:20] Phiona’s brother is hurt. How does she convince somebody to help her?
 - b. [50:01] Why does the family leave the hospital in a hurry?



- c. [51:12] What problem is the Mutsei family faced with when they return home from the hospital?
- 17.a. [54:30] Why does Phiona not want to come back to chess?
 - b. [55:04] What advice does the Chess coach try to give Phiona when he says: “Never tip your King so quick.”



18. [56:25] Phiona’s sister Night returns momentarily with a “new look” and some money. Why does their mother not approve?
19. a. [1:04:04] What news does the Chess coach receive concerning his chess students?
 - b. [1:04:23] Who sponsors the tournament the children have been invited to?
 - c. [1:04:32] How will Phiona get to this chess tournament?
 - d. [1:05:10] What opportunity awaits for Phiona and her brother? How does their mother react to this?



20. [1:10:13] How does the children’s access to food and diet change at the chess tournament?

Student worksheet: *Queen of Katwe* (2016)

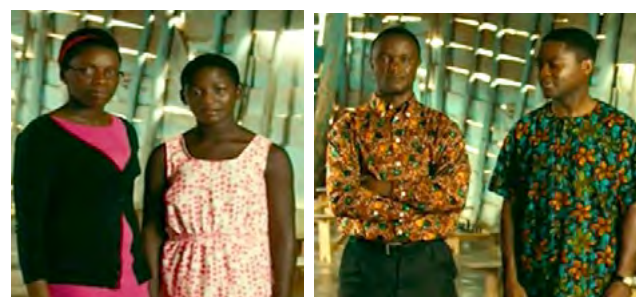


21. [1:11:59] Phiona starts to become well known in the Katwe community. Provide examples to demonstrate this.



22. [1:12:32] Phiona's mother becomes concerned – since returning from Sudan, Phiona has refused to do many of her family tasks. Why do you think Phiona has changed? Why is this change "dangerous"?

23. [1:21:51] Why does Phiona want to go to the Chess Olympiad in Russia?
24. [1:27:16]. Why do you think Phiona's dreams and identity are challenged when she "gives up" on a chess game.
25. [1:30:40] Phiona arrives at the home of her Chess coach and says:
"Coach, you told us to make a plan for when the rain came. But how can I plan when there is no roof and there are no walls. The water does not care about my plan. The water takes anything it wants. Tell me how I should have played coach. Very soon, men will start coming after me – where is my safe square coach?"
 What advice does the Chess coach give Phiona?



26. [1:37:35] Where do the Mutsezi siblings find themselves in 2011?
27. [1:39:40] According to Phiona, what does losing at chess teach her?
- 28.a. [1:50:35] Where do the Mutsezi children take their mother?
 b. [1:51:51] Compare this home (see image below), to other homes the Mutsezi family have lived in.
29. [1:53:05] Outline what Phiona achieved in 2016.

30. [1:53:26] What has Robert (the real life chess coach) achieved?
31. [1:53:42] What does Phiona's mother, Nakku Harriet do in real life?
32. [1:53:56] Outline what Phiona's brother Brian does in real life.
33. [1:54:10] What does Phiona's sister Night do?



Student worksheet: *Queen of Katwe* (2016)

AFTER VIEWING – In small groups of 3-4:

1. Discuss the following questions. Record key points from your discussion in the table below.

QUESTION	KEY POINTS
<i>What can be done to enable every child, currently living in poverty, to use their talents to fulfil their potential.</i>	
<i>What is the role and responsibility of individuals, charitable and voluntary organisations and governments?</i>	
<i>How can tackling gender inequality help?</i>	

2. Suggest ONE strategy to improve the wellbeing for people living in Katwe, Uganda. Present your strategy to the class using 1x PPT slide.

Queen of Katwe (2016) worksheet image sources:

Screen shots were taken from Google Earth and ABC article. (URL's are on the worksheet that correspond with the article). The remaining images were the author's own screenshots while she watched the film.

This student worksheet has been included in the Appendix.

ADVICE TO CONTRIBUTORS

Geography Bulletin guidelines

1. **Objective:** The Geography Bulletin is the quarterly journal of The Geography Teachers' Association of NSW & ACT Inc. The role of the Geography Bulletin is to disseminate up-to-date geographical information and to widen access to new geographic teaching ideas, methods and content. Articles of interest to teachers and students of geography in both secondary and tertiary institutions are invited, and contributions of factually correct, informed analyses, and case studies suitable for use in secondary schools are particularly welcomed.

2. **Content:** Articles, not normally exceeding 5000 words, should be submitted to the GTA NSW & ACT Office by email gta.admin@ptc.nsw.edu.au

Submissions can also be sent directly to the editors:
Lorraine Chaffer (lchaffer@tpg.com.au)

Articles are welcomed from tertiary and secondary teachers, students, business and government representatives. Articles may also be solicited from time to time. Articles submitted will be evaluated according to their ability to meet the objectives outlined above.

3. **Format:** Digital submission in Word format.

- Tables should be on separate pages, one per page, and figures should be clearly drawn, one per page, in black on opaque coloured background, suitable for reproduction.
- Photographs should be in high resolution digital format. An indication should be given in the text of approximate location of tables, figures and photographs.
- Every illustration needs a caption.
- Photographs, tables and illustrations sourced from the internet must acknowledge the source and have a URL link to the original context.

Note: Please try to limit the number of images per page to facilitate ease of reproduction by teachers.

Diagrams created using templates should be saved as an image for ease of incorporation into the bulletin.

All assessment or skills tasks should have an introduction explaining links to syllabus content and outcomes. A Marking Guideline for this type of article is encouraged.

4. **Title:** The title should be short, yet clear and descriptive. The author's name should appear in full, together with a full title of position held and location of employment.

5. **Covering Letter:** As email with submitted articles. If the manuscript has been submitted to another journal, this should be stated clearly.

6. **Photo of Contributor:** Contributors may enclose a passport-type photograph and a brief biographical statement as part of their article.

7. **References:** References should follow the conventional author-date format:

Abbott, B. K. (1980) *The Historical and Geographical Development of Muswellbrook* Newcastle: Hunter Valley Press.

Harrison, T. L. (1973a) *Railway to Jugiong* Adelaide: The Rosebud Press. (2nd Ed.)

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All suitable manuscripts submitted to the Geography Bulletin are subject to the process of review. The authors and contributors alone are responsible for the opinions expressed in their articles and while reasonable checks are made to ensure the accuracy of all statements, neither the editor nor the Geography Teachers' Association of NSW & ACT Inc accepts responsibility for statements or opinions expressed herein.

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