

Cyclone **TRACY**

ACTIVITIES AND
RESOURCES

**MUSEUM
AND ART
GALLERY**
NORTHERN
TERRITORY
EDUCATION 2025



EARLY CHILDHOOD RESOURCES

Overview: People who help in times of emergency.

Inquiry question: Who helps us in an Emergency?

Suitable for Preschool –Yr1

Learning Intentions: We are learning to understand what an emergency is and the people in our community that can help us.

Success Criteria:

- I know what an emergency is.
- I can name people who help in an emergency.
- I can talk about ways I can keep safe in different situations.



PlaySchool's Everyday Helpers, accessed January 2025

<https://www.abc.net.au/abckids/programs/play-school/extension-ideas/everyday-helpers/13149796>

Play School's Everyday Helpers is a great way to introduce the people that help to keep us safe in times of emergencies.

As well as fantastic episodes available to watch on ABC iview, there is also a fantastic set of Education notes for more information about the topics covered in everyday helpers.

ABC Kids - Play School - Everyday Helpers Education Notes, accessed January 2025:

<https://live-production.wcms.abc-cdn.net.au/46c29b23039179548295e7770fcd7b47>

EVERY PICTURE TELLS A STORY

Overview: Looking at how the design and construction of homes and other places changes over time

Inquiry question: What did my house/ school/ favourite place look like in the past?

Suitable for Yrs 2–7

Learning Intentions: We are learning how and why buildings may change over time.

Success Criteria:

- I can identify local buildings and how they have changed over time
- I can explain how natural disasters can affect buildings
- I can discuss how buildings are designed differently after a natural disaster to be stronger and safer.

Useful resources:

Cyclone Tracy before and after photos – <https://cyclonetracymap.com/>

How to trace the history of your house – <https://www.library.gov.au/learn/adults/lifelong-learning/how-trace-history-your-house>

EVERY PICTURE TELLS A STORY

Before Cyclone Tracy



1968. Old Palmerston town hall. Available at:
<https://hdl.handle.net/10070/727194>
[accessed January 2025]
The Museum and Art Gallery was housed in the Old
Palmerston Town Hall on Smith Street.

After Cyclone Tracy



Ruins of Darwin Town Hall following Cyclone Tracy
MAGNT Collection PIC135/001

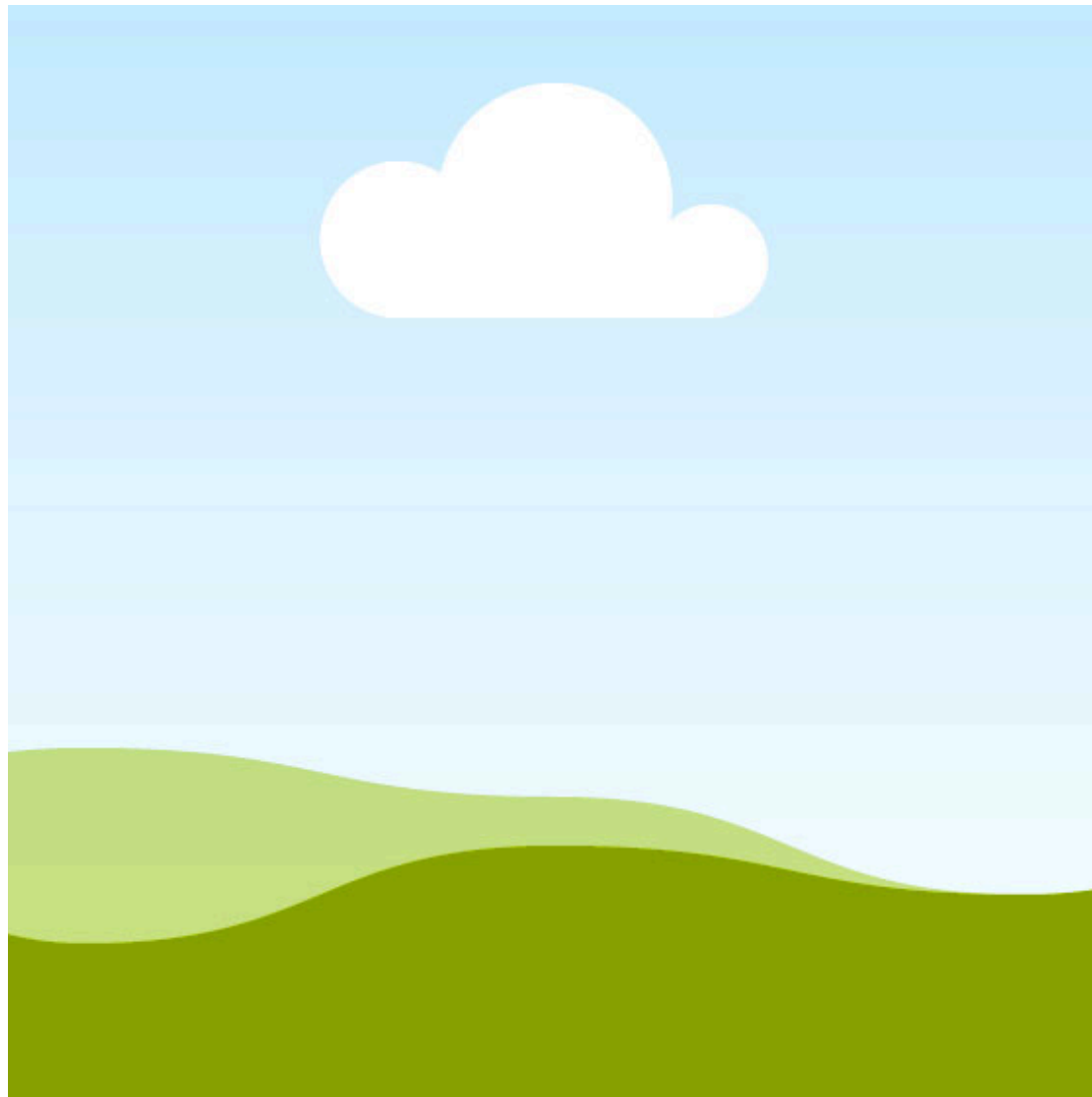
Today



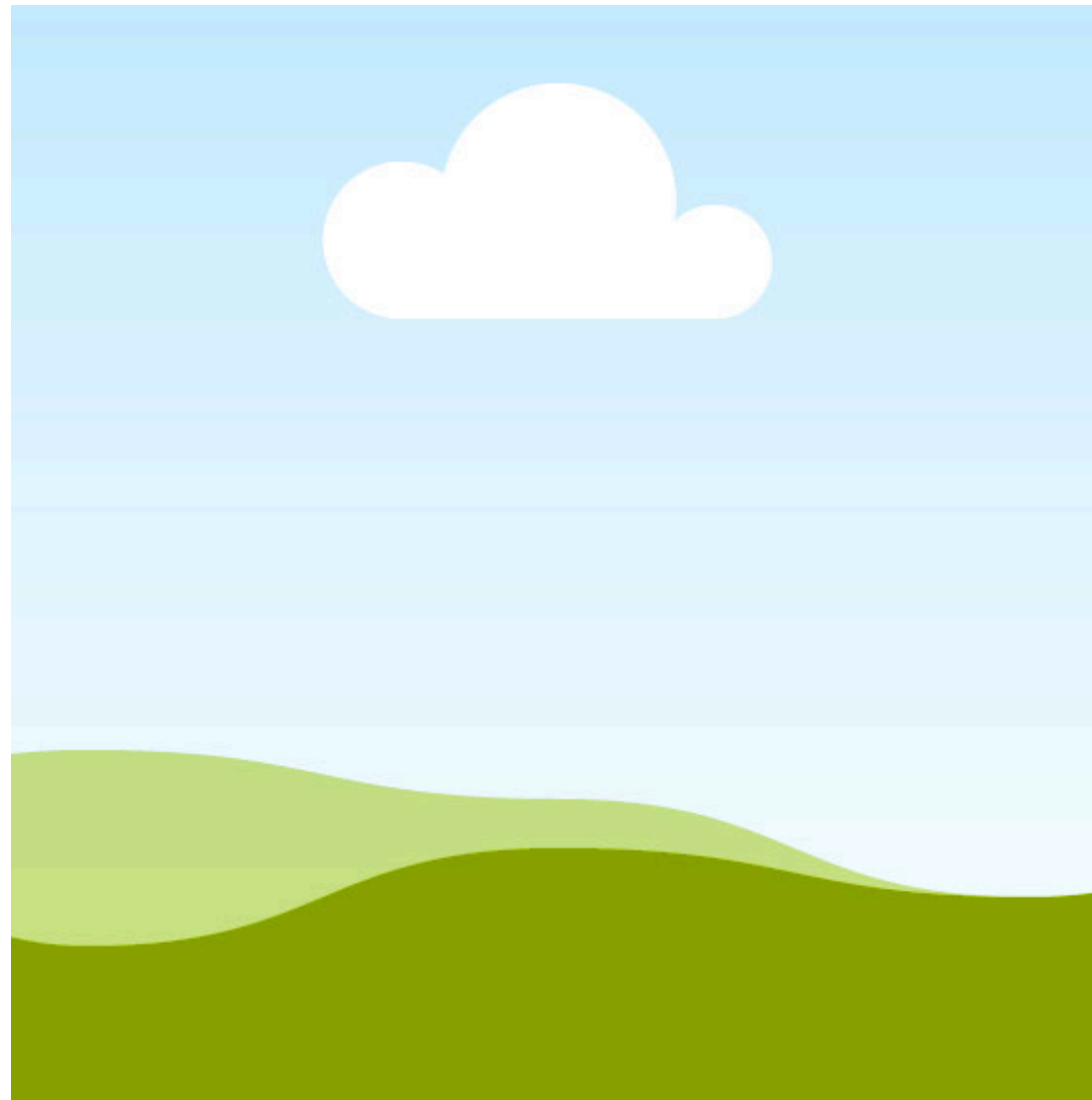
MAGNT 2021, Photographer Mark Sherwood.
MAGNT Darwin is now located at Conacher Street,
The Gardens. Also known as Bullocky Point.

EVERY PICTURE TELLS A STORY

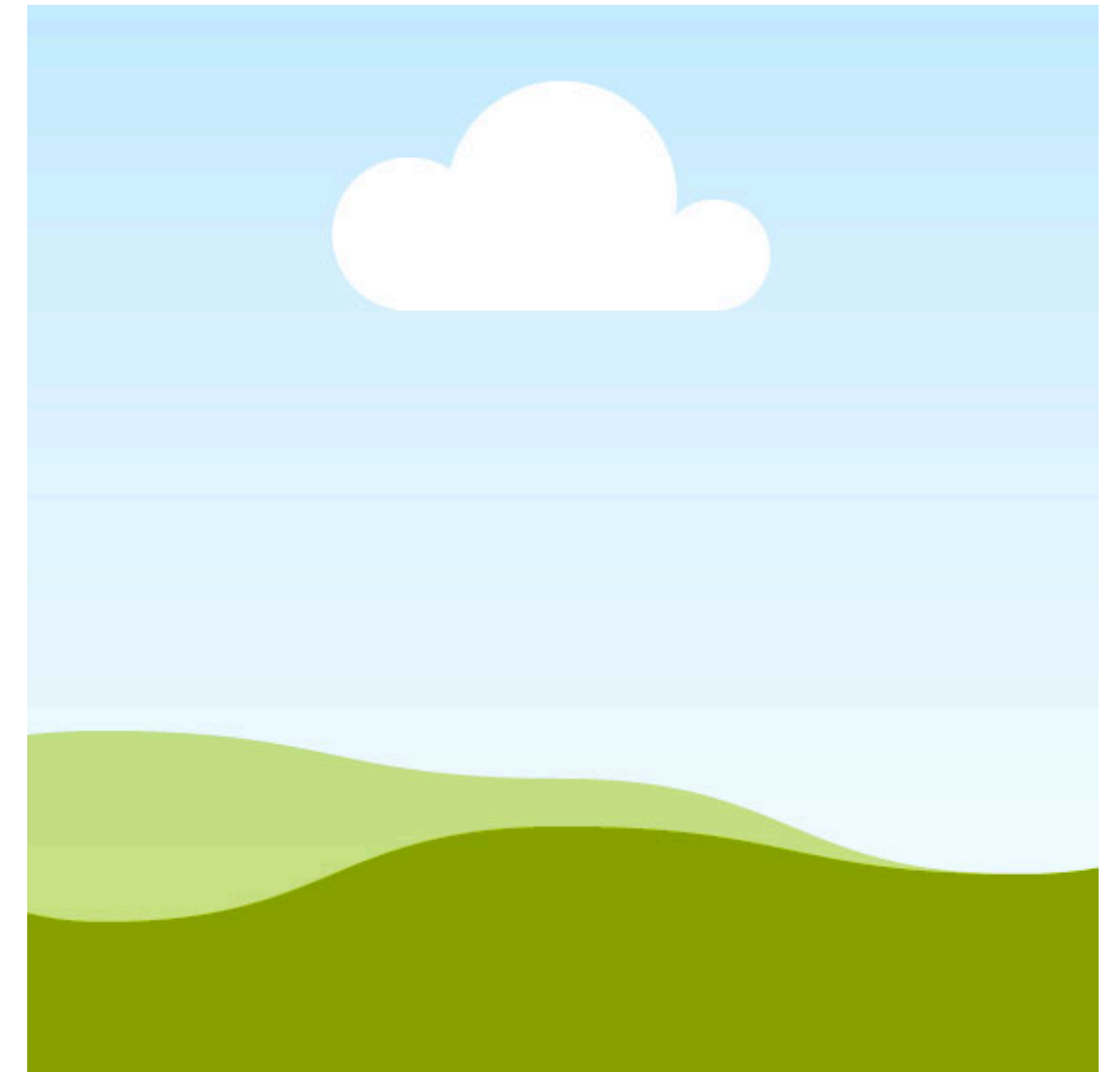
Before Cyclone Tracy



After Cyclone Tracy



Today



Activity: Every Picture Tells a story.

Choose a building or location that students are familiar with. For example your school. Go to the website: <https://cyclonetracymap.com/> and enter the Darwin street address you are looking for. 💡 If your address is not listed, why would that be? Copy or snip the pictures from the page and then add a photo of your building or location as it is today. If you live outside Darwin, you can do a before, after and today comparison of an event that changed where you live.

LITERACY RESOURCE

‘Cyclone’ by Jackie French (2016)

Overview: From the dedication in Cyclone - ‘ To the man who rang on December 27th 1974, and told me he had held his family safe in their Concrete block barbecue. He rang again, months later, and asked to speak to ‘the girl who was on the phone that day’. He wanted to tell me his family were coming home, and that it was now a safe one. To him and those who suffered not just Cyclone Tracy but the anguished months after; to all the heros who stayed to rebuild the shattered town; and to all those who had the courage to return: this book is yours.’

Inquiry question: How did Cyclone Tracy impact the people of Darwin, and what can their response teach us about resilience, community and rebuilding after a disaster?

Suitable for Yrs 3-10

Learning Intentions: We are learning to understand the impact of Cyclone Tracy on the people of Darwin.

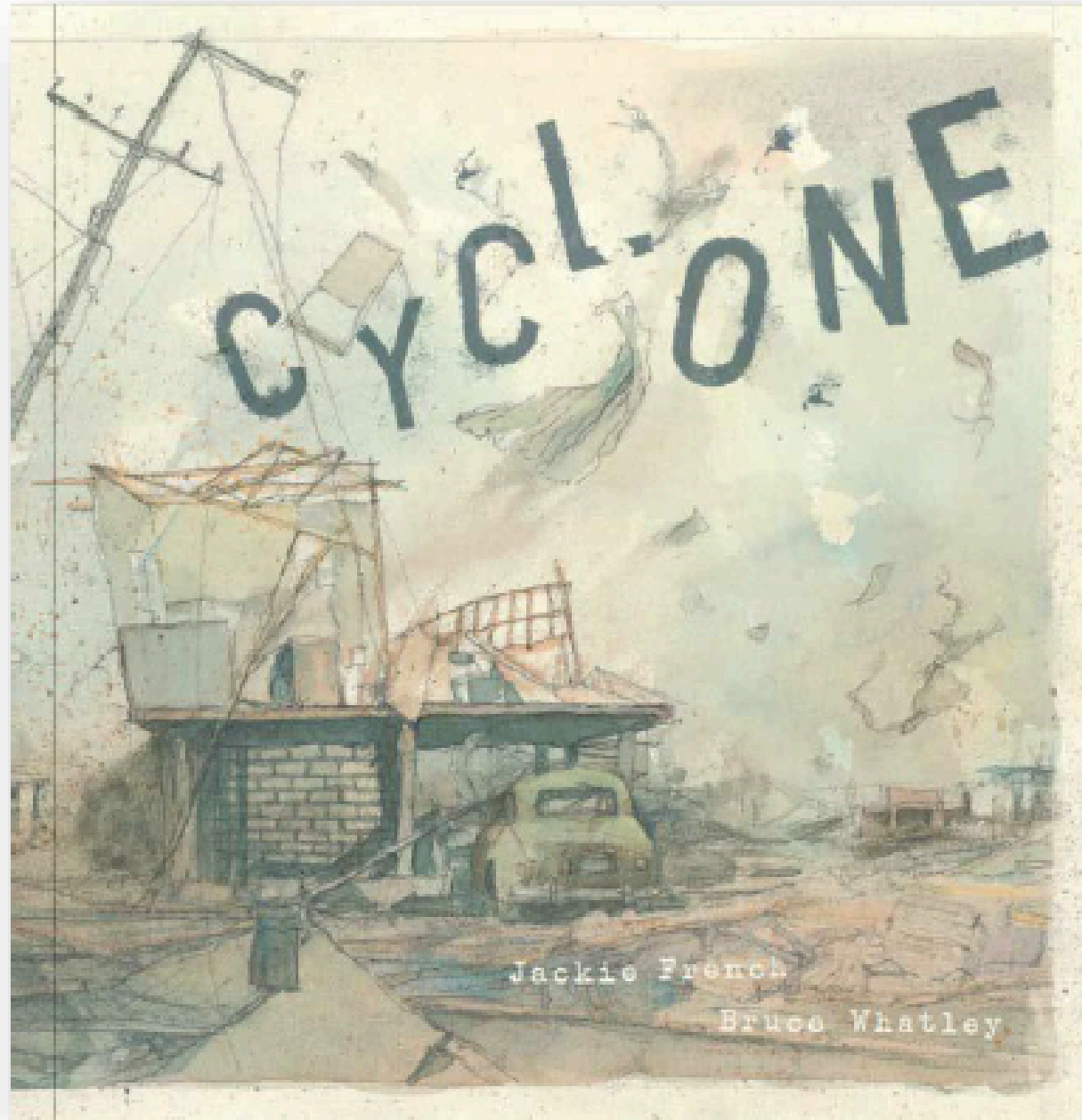
Success Criteria:

- I can make a timeline of events of Cyclone Tracy
- I can identify the emotions and challenges faced by the people of Darwin
- I can reflect on the themes of resilience and recovery in the book

LITERACY RESOURCE



Teacher Tip: This book may be triggering for teachers or students that have been through any form of natural disaster.



French, Jackie & Whatley, Bruce. 2016, *Cyclone*. Scholastic Press, an imprint of Scholastic Australia Gosford, NSW

What do you already know about Cyclone Tracy?

How did the story make you feel?

From whose perspective is the story written?

Who or what is the main character in this story?

What adjectives would you use to describe the central character?

What new information and ideas did you get that broadened your thinking or extended it in a different direction after reading or hearing this story?

What questions do you have about cyclones?

How does the author's choice of genre reflect the rhythms of Cyclone Tracy?

GULUMOERRGIN (LARRAKIA) SEASONS

Larrakia Season Calendar:

Overview: The Gulumoerrgin (Larrakia) year is divided into seven different seasons, and describes the weather and ecological signs recognised by Larrakia people in their Country

Inquiry question: How many seasons do you have where you live?

Suitable for Yrs 1 – 3

Learning Intentions: We are learning about the seasons in our local area.

Success Criteria:

- I can identify different weather conditions
- I can name, say and describe the seasons in our local area
- I can explain how the seasons affect people, animals and the environment around us.
- I can compare the seasons in our local area to those in other places.

GULUMOERRGIN (LARRAKIA) SEASONS

Indigenous Cultural and Intellectual Property

The Indigenous knowledge holders assert ownership, authority and control over the Indigenous Cultural and Intellectual Property (ICIP) expressed in the language names, stories, knowledge about plants, animals and seasonal connections, as well as the seasonal visual representation in the calendar.

Use of ICIP for educational outreach only

The Indigenous knowledge holders are sharing the calendars and ICIP embedded in them for educational outreach only: namely to increase awareness, respect and recognition of their culture, knowledge and practices and for use by the general public, students and teachers and schools/universities/cultural institutions in learning.



Gulumoerrgin (Larrakia) seasons calendar, CSIRO website accessed January 2025,
<https://www.csiro.au/en/research/indigenous-science/indigenous-knowledge/calendars/gulumoerrgin>

Gulumoerrgin (Larrakia) Seasons

Lorraine Williams, Judith Williams, Maureen Ogden, Keith Risk, Anne Risk and Emma Woodward (CSIRO). 2012. Gulumoerrgin Seasons (calendar): Larrakia, Darwin - Northern Territory, Australia. CSIRO (Land and Water).

The 7 Gulumoerrgin seasons:

- Balnba
- Dalay
- Mayilema
- Damibilla
- Dinidjanggama
- Gurrulwa gulgi
- Dalirrgang

What weather might you experience in each season?

TIMELINE CYCLONE TRACY

Overview: The Cyclone Tracy Gallery follows life in Darwin before, during and after the cyclone

Inquiry question: How does the exhibition represent the story of Cyclone Tracy?

Suitable for Yrs 3–10

Learning Intentions: We are learning to sequence the key events of Cyclone Tracy into a timeline to understand its impact on Darwin.

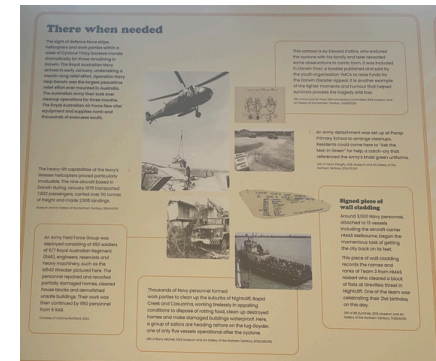
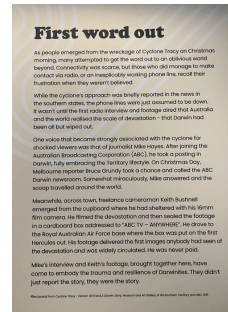
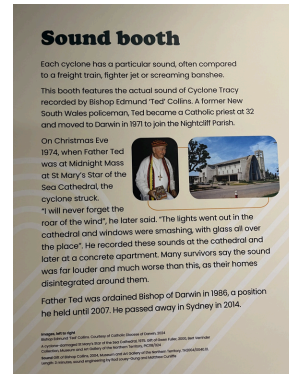
Success Criteria:

- I can identify and sequence the key events of Cyclone Tracy in chronological order.
- I can use appropriate dates, times and details to create an accurate and clear timeline



Teacher Tip! Several timelines could be created from information contained in the exhibition. A detailed historical timeline, a timeline of the life of the cyclone, a timeline of Cyclone Tracy Survivor Stories or, as in the next slide, a timeline of the exhibition.

TIMELINE CYCLONE TRACY – THE EXHIBITION



A bloody good place to live
(Darwin pre-cyclone)

Soundbooth
(Cyclone Tracy hits Darwin)

First Word Out
(Darwin is Devastated -
connecting to the outside
world)

John's Torana
(Humour in the tragedy)

Surviving
(The aftermath)

There when needed
(Defence Forces)

This is Cyclone Country



The weather watchers.
(Formation of Cyclone
Tracy) BoM

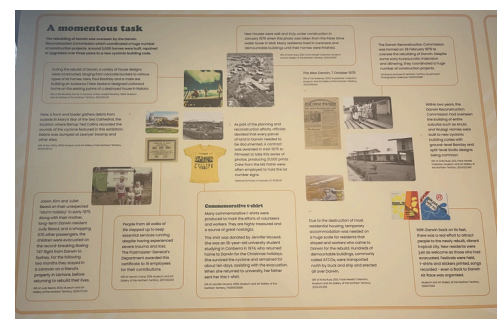
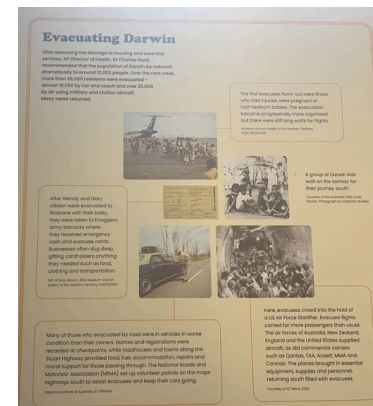
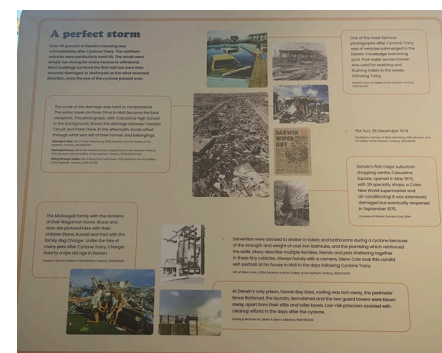
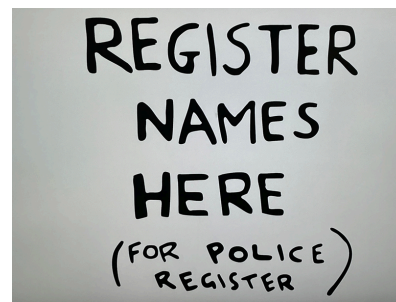
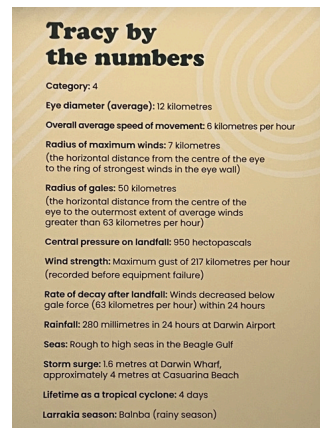
Tracy by the numbers
(Cyclone facts and figures)

Register Names Here
(Evacuee and Fatality lists)

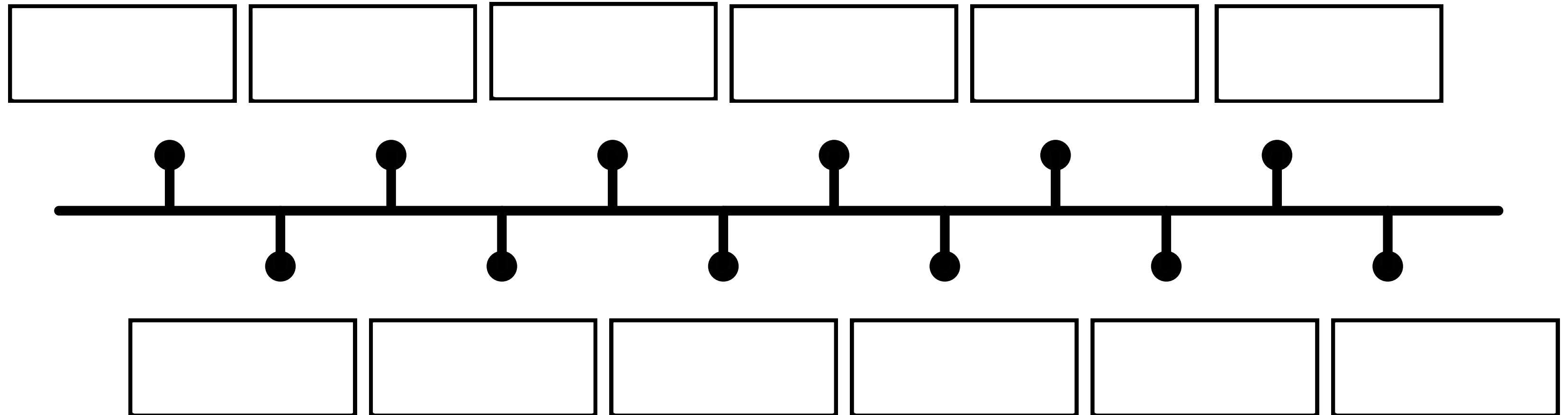
A perfect storm
(Scale of the destruction)

Evacuating Darwin
(Plane, coach and car)

A momentous task
(Rebuilding Darwin)



TIMELINE CYCLONE TRACY



Use the graphic above to create a timeline for Cyclone Tracy.

COUNTRY OF BIRTH DATA: NORTHERN TERRITORY 1971 vs 2021

Overview: The following information has been taken from the census information collected by the Australian Bureau of Statistics: <https://www.abs.gov.au/census/find-census-data/quickstats/2021/7> and the [PDF of the 1971 NT population data](#).

Inquiry question: What does the data tell you about the similarities and differences in the population of the Northern Territory in 1971 compared to 2021?

Suitable for Yrs 5–9

Learning Intention: We are learning to analyse and interpret data

Success Criteria:

- I can interpret what the data shows and explain its significance
- I can use evidence from the data to support my conclusions
- I can identify key patterns and trends in data

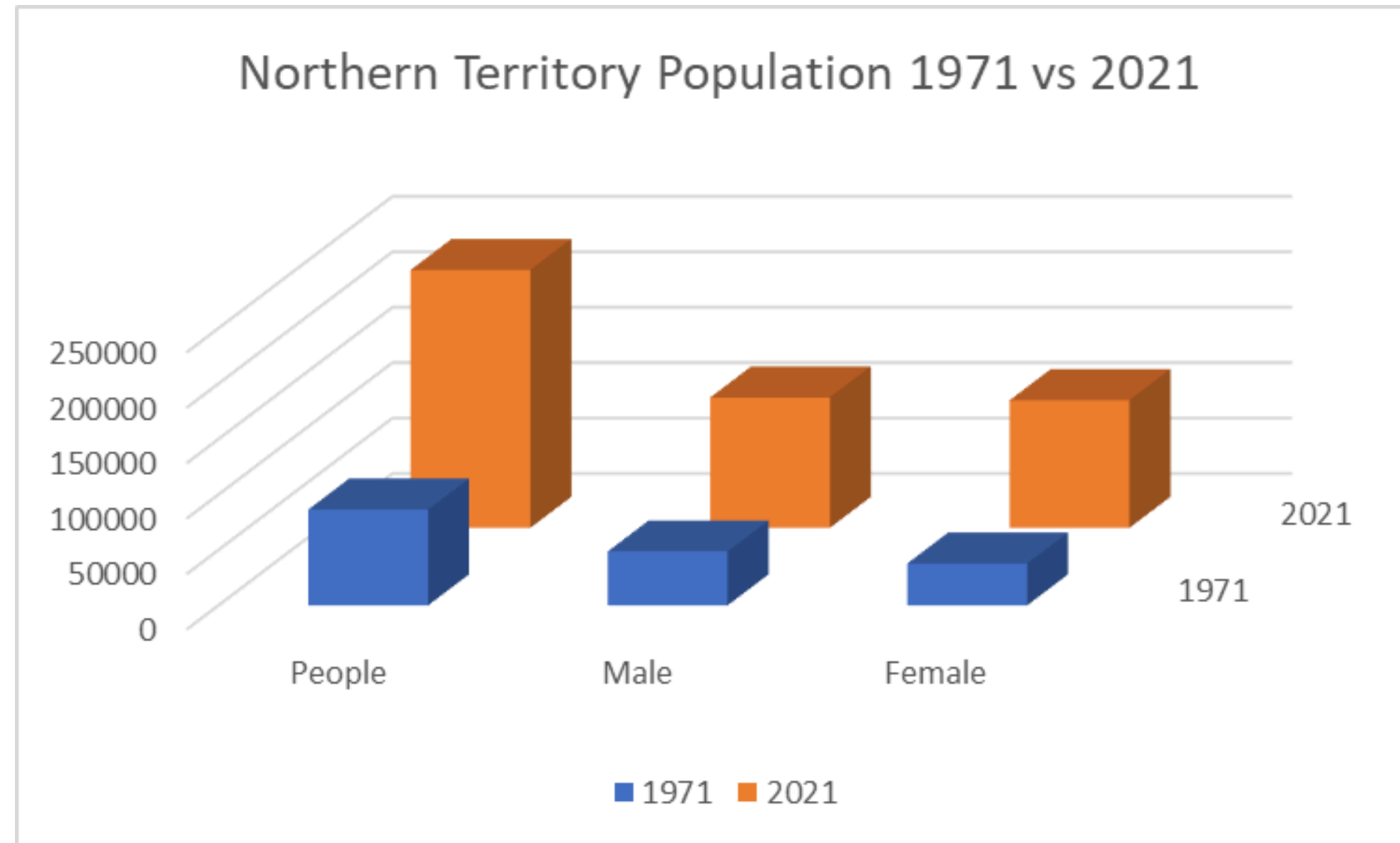
COUNTRY OF BIRTH DATA: NORTHERN TERRITORY 1971 vs 2021



Look at the pie graphs above.

- What do you notice?
- What do you wonder?
- What might be going on in these graphs?

Country of Birth	1971 Data	2021 Data
Australia	69579	161568
Philippines	0	6391
United Kingdom	5446	5053
India	175	5045
New Zealand	1113	4041
Nepal	0	2994
Greece	1452	1180
Italy	1098	502



Look at the column graph above.

- What do you notice?
- What do you wonder?
- What might be going on in this graph?
- Is there a better way of representing the data? - Please share with us education@magnt.net.au

	1971 Data	2021 Data
People	86390	232605
Male	48627	117526
Female	37763	115075
Indigenous Peoples Median age	16	26
Total Population Median age	23	33

COUNTRY OF BIRTH DATA: NORTHERN TERRITORY 1971 vs 2021

Make predictions about the population of the Northern Territory or Darwin in another 50 years (2075).

Explore and explain your answers for the following questions.

- Would the population increase or decrease?
- What local, national or global factors might cause an increase or decrease in the population?
- Where would Darwin's food come from? What foods might be available in local markets?
- What is the capacity of the local environment to continue to support the population and the lives of other living creatures into the future?
- What could the climate be like in Darwin in fifty years?
- What might change about how and where people live?
- Would the median age of the population increase or decrease?

BUREAU OF METEOROLOGY CABINET

Overview: The items in the exhibition have been generously loaned to MAGNT from the Bureau of Meteorology (BoM), to show some of the equipment that would have been used back in the 1970s to measure and record weather observations.

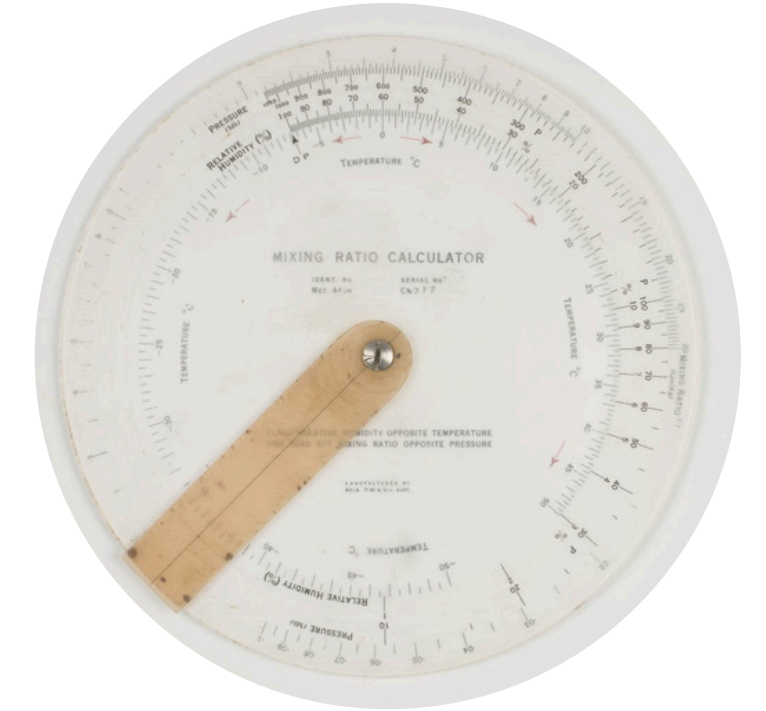
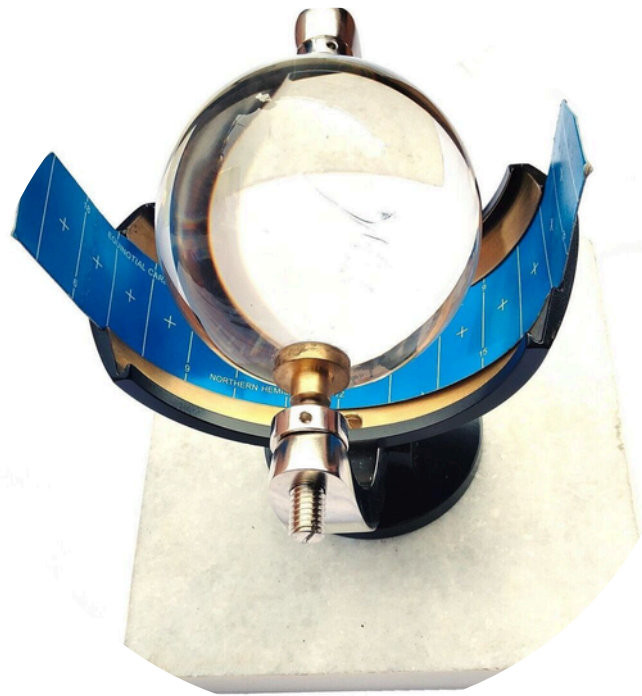
Inquiry question: What is weather?

Suitable for Yrs 3–10

Learning Intention: We are learning about the many different instruments used in weather observation and their purpose and function

Success Criteria:

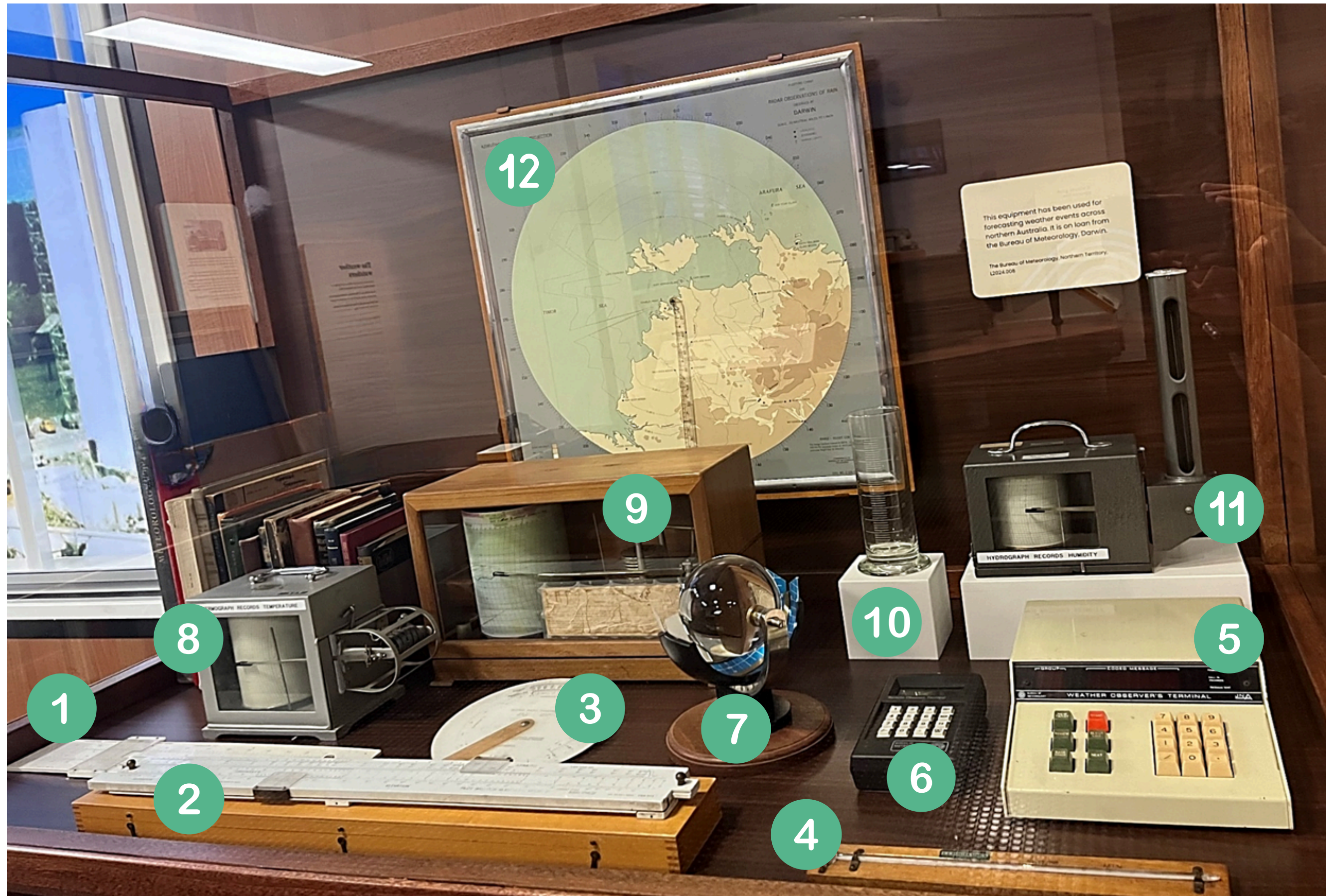
- I can identify and name different instruments used in weather observation
- I can describe the purpose of weather instruments found in the exhibition (e.g., thermometer, barometer, rain gauge, hygrometer)



Can you guess what
these instruments do?



BUREAU OF METEOROLOGY CABINET



BUREAU OF METEOROLOGY CABINET

- | | | | |
|---|---|----|--|
| 1 | Radiosonde Temperature evaluator CBM 8750 | 7 | Sun recorder – Campbell Stokes recorder |
| 2 | Pilot Balloon Slide rule | 8 | Thermograph |
| 3 | Mixing Ratio Calculator | 9 | Barograph |
| 4 | Horizontal Thermometer | 10 | Glass internal rain gauge |
| 5 | Weather Observers Terminal | 11 | Hydrograph |
| 6 | Remote Observer Terminal | 12 | Plotting Chart of rain radar observations at Darwin circa 1969 |

GLOSSARY OF METEOROLOGICAL TERMS

Overview: The following list covers some of the commonly used Meteorological terms used in the exhibition and resources.

Inquiry question: What is the morphology and etymology of commonly used Meteorological terms?

Suitable for Yrs 3-6

Learning Intention: We are learning to understand and recognise weather-related vocabulary used by Meteorologists.

Success Criteria:

- I can recognize prefixes, suffixes and root words in weather-related vocabulary (e.g., "thermo-" in thermometer)
- I can match weather-related terms to their definition and weather related observations

Glossary of meteorological terms

anemometer	An instrument for measuring the speed of the wind
atmospheric pressure	The force exerted on a surface by air above it as gravity pulls it to Earth
azimuth	The angle between North, measured clockwise around the observer's horizon, and a celestial body (sun, moon)
barograph	A barometer that records its readings on a moving chart
barometer	An instrument measuring atmospheric pressure, used especially in forecasting the weather and determining altitude
barometric pressure	The measurement of the weight of air molecules in the Earth's atmosphere at a specific location
cathode ray	A stream of electrons leaving the negative electrode (cathode) in a discharge tube containing a gas at low pressure, or electrons emitted by a heated filament in certain electron tubes
cumulonimbus	A cloud forming a towering mass with a flat base at fairly low altitude and often a flat top, as in thunderstorms
Doppler radar	A specific type of radar that employs the use of Doppler frequency shifting to determine the velocity or movement of an object

Glossary of meteorological terms

elevation	The height above a given level, usually sea level, or the angular distance of something (such as a celestial object) above the horizon
hectopascals	A unit of pressure that is used to measure atmospheric pressure in meteorology and climatology (hPa)
humidity	A quantity representing the amount of water vapour in the atmosphere
hygrograph	An instrument for recording variations in atmospheric humidity
hygrometer	An instrument for recording variations in atmospheric humidity on a chart
meteorology	The branch of science concerned with the processes and phenomena of the atmosphere, especially as a means of forecasting the weather
polaroid	Relating to or denoting a type of camera with internal processing that produces a finished print rapidly after each exposure
radar	A device that sends out radio waves for detecting and locating an object by the reflection of the radio waves and that may use this reflection to find out the position and speed of the object
radiosondes	An instrument carried by weather balloon or other means to various levels of the atmosphere that transmits measurements by radio

Glossary of meteorological terms

satellites	A device sent up into space to travel around the earth, used for collecting information or communicating by radio, television, etc.
Telex	Telex is a telecommunication system that allows text-based messages to be sent and received by teleprinter over telephone lines
thermograph	An instrument that produces a trace or image representing a record of the varying temperature over an area or during a period of time
thermometer	An instrument for measuring and indicating temperature, typically one consisting of a narrow, hermetically sealed glass tube marked with graduations and having at one end a bulb containing mercury or alcohol which extends along the tube as it expands
weather	Weather is the state of the atmosphere at a specific time and place. It's described by factors like temperature, wind, humidity, precipitation, and cloud cover
weather balloons	A balloon equipped with meteorological apparatus which is sent into the atmosphere to provide information about the weather
wind velocity	The measurement of the speed and direction from which wind is moving at a specific location

CASE STUDY OF A TROPICAL CYCLONE

Overview: Northern Australia is cyclone country. On average, we can expect 11 cyclones in a season, with 4 making landfall. The Territory alone has seen at least 104 cyclones from 1827 until the beginning of 2024.

Inquiry question: We can see on our TV screens the immediate impact and effect of cyclones, what are the long term impacts of cyclones in Northern Australia?

Suitable for Yrs 3–8

Learning Intention: We are learning about the impacts that cyclones have on communities, towns and cities in Northern Australia

Success Criteria:

- I can use maps, images, or case studies to support my understanding of cyclone impacts.
- I can give examples of past cyclones and their effects on Northern Australia.
- I can explain the short-term and long-term impacts of cyclones on communities, towns, and cities.

Extreme Weather Stats:

(Wind speed, rainfall, category,
storm surge height)

Name of Cyclone:

Region:

Date:

Choose from some of the past Tropical Cyclone Data in the Australian region
from the BoM Website:

<http://www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/history/past-tropical-cyclones/>

Sketch location and path:

Response:

Emergency (Immediate)

Case Study of a Tropical Cyclone

**States/ Territories/ Towns,
Cities/ Communities
affected:**

Immediate Impacts:

Long Term Impacts

Extreme Weather Stats:

(Wind speed, rainfall, category, storm surge height)

- Max Wind speed recorded 217km per hour (could have been higher but the anemometer broke)
- Category 4
- Storm surge 1.6m at Stokes Hill Wharf, 4m at Casuarina Beach
- 280 mm rain recorded at Darwin Airport in 24 hours

Name of Cyclone: Cyclone Tracy

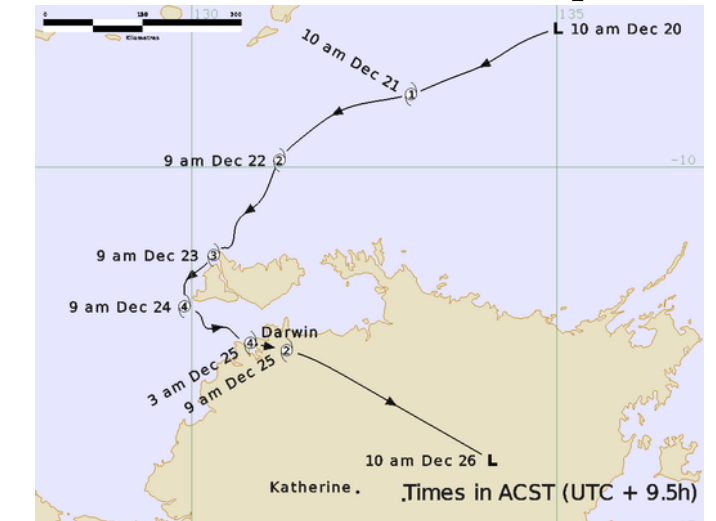
Region: Northern

Date: 21-25 December 1974

Choose from some of the past Tropical Cyclone Data in the Australian region from the BOM Website:

<http://www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/history/past-tropical-cyclones/>

Sketch location and path:



Case Study of a Tropical Cyclone

Response:

Emergency (Immediate)

- All able citizens
- Defence personnel
- Defence Forces

States/ Territories/ Towns, cities/ communities affected:

- Darwin
- Mandorah
- Tiwi Islands

Immediate Impacts:

- Darwin Destroyed
- 66 people died
- 90% of houses were destroyed and uninhabitable
- Only 5 boats were useable in the harbour
- No electricity or water or communication
- Entire population in a state of shock

Long Term Impacts:

- Evacuations
- Trauma
- Building safety improved
- Advances in disaster management

CYCLONE – EXIT TICKET / QUIZ

Overview: Quick Quiz for checking recall and learning about Cyclone Tracy and Cyclones in general.

Suitable for Yrs 5–8

Learning Intention: We are reflecting on our understanding of cyclones

Success Criteria:

- I can summarize the key points I learned about cyclones.
- I can explain how cyclones form and their impacts on communities.

CYCLONE – EXIT TICKET

True or False:

- Q1. If a storm isn't spinning, it can't become a tropical cyclone
- Q2. A tropical cyclone will always have a name
- Q3. A tropical cyclone can form over land
- Q4. A Category 1 cyclone has wind gusts of up to 125 km/h
- Q5. A tropical cyclone can only form over water that is 27°C or warmer
- Q6. A hurricane would spin clockwise in the North Atlantic Ocean
- Q7. A tropical cyclone could form in the Antarctic Ocean
- Q8. A tropical cyclone forming near Japan would be called a hurricane
- Q9. A tropical cyclone forming near India would be called a typhoon
- Q10. Tropical cyclones can happen in any month of the year

Answers:

- 1. True
- 2. True (after 1964)
- 3. False
- 4. True
- 5. True
- 6. False
- 7. False (water is too cold)
- 8. False (typhoon)
- 9. False (cyclone)
- 10. True

CYCLONE – QUICK QUIZ

1.What year did Cyclone Tracy hit Darwin?

- 1974
- 1984
- 1994

2.Which city in Australia was most affected by Cyclone Tracy?

- Sydney
- Darwin
- Brisbane

3.On which date did Cyclone Tracy make landfall in Darwin?

- December 24-25
- January 1-2
- July 10-11

4.Was Cyclone Tracy one of the smallest or largest cyclones in history?

- Largest
- Smallest

5.What type of weather event was Cyclone Tracy?

- A tropical cyclone
- A tornado
- A flood

CYCLONE – QUICK QUIZ CONTINUED

6. What time of year do cyclones usually happen in Northern Australia

- Wet season
- Dry season
- All year round

7. How strong were the winds of Cyclone Tracy?

- 100 km/h
- Over 200 km/h
- 50 km/h

8. What happened to most of the houses in Darwin?

- They were left untouched
- They got a little wet
- Many were destroyed

9. Where were the winds the strongest?

- At the eye wall
- In the eye of the cyclone
- On the outer edge of the cyclone

10. How were most people evacuated from Darwin?

- By train
- By boat
- By Plane

Answers:

1. 1974
2. Darwin
3. December 24-25
4. Smallest (in size)
5. A tropical Cyclone
6. Wet season (usually)
7. Over 200 km/h
8. Many were destroyed
9. At the eye wall
10. Plane

How to use the MAGNT cards:

Each exhibition has its own
colour coded cards.

You can use MAGNT Cards as
individuals, pairs or groups.

Connect with objects
in our exhibitions.

Share and discuss ideas
through meaningful
conversations.

Reflect on your findings
and experiences.

MAGNT cards are
designed to promote critical
and creative thinking.

They encourage
engagement with MAGNT
exhibitions and objects.

MAGNT cards are
designed to stimulate
discussion and share ideas.



Visit the Cyclone Tracy
Sound Booth

How does the sound
make you feel?

What are some of the
words that describe
the sound made by
the cyclone?



Was Cyclone Tracy a
big or small cyclone?
Why do you think that?

Was Cyclone Tracy
slow or fast moving?
Why do you think that?



When is Cyclone Season in Northern Australia?

What are some of the signs we can see in nature, that tell us that the monsoon season has arrived?



What are the similarities and differences between a cyclone, a typhoon and a hurricane?



What category of cyclone was Cyclone Tracy?

Category 1 =
Winds less than 125km/h - Gales

Category 2 =
Winds between 126-164km/h
Destructive winds

Category 3 =
Winds between 165-224km/h
Very Destructive winds

Category 4 =
Winds between 225-279km/h
Very Destructive winds

Category 5 =
Winds more than 280km/h
Extremely Destructive winds



In the week after Cyclone Tracy destroyed Darwin, more than 25,000 people had been evacuated.

Would you stay or would you go?

What are the advantages and disadvantages of staying or leaving?



Look at some of the
before and after Cyclone
Tracy Photographs,

Make a list of words to
describe the thoughts and
feelings of the people that
survived Cyclone Tracy.

Describe what walking
around on Christmas Day
might have felt like.



Will there ever be another
Cyclone Tracy?



Why does the Bureau of
Meteorology have a
crystal ball?

Can you think what it is
used for?



Raggedy Andy survived
Cyclone Tracy, and stayed
with his owner Tansy until
he was given to MAGNT in
2022.

What is the one item you
would save and treasure,
why?

USEFUL RESOURCES AND FURTHER READING

Books:

Archibald, J., Brain, C. and Taylor, P. (2024) ***Cyclone Tracy, A cyclone for Christmas***, MAGNT, Darwin, NT
French, J & Whatley, B. (2016) ***Cyclone***. Scholastic Press, an imprint of Scholastic Australia Gosford, NSW

Websites:

Museum and Art Gallery of the Northern Territory: <https://www.magnt.net.au/cyclone-tracy>

Bureau of Meteorology: <http://www.bom.gov.au/cyclone/tropical-cyclone-knowledge-centre/>

Royal Meteorology Society – Metlink: <https://www.metlink.org/resource/tropical-cyclone-teaching-resources/>

Australian Disaster Resilience – Knowledge Hub: <https://knowledge.aidr.org.au/resources/cyclone-cyclone-tracy-darwin-1974/>

Science On a Sphere: A Global Tour of Precipitation from NASA: Global weather patterns, <https://svs.gsfc.nasa.gov/12126/>

Films/Documentaries:

(Caution. Videos may contain strong language and images of people who have passed away)

The Darwin Story – NFSA – YouTube – <https://youtu.be/1qGNMmhtD4k?feature=shared>

When will the birds return? – NFSA – YouTube – <https://youtu.be/N5b4fDiSoTU?feature=shared>

Tracy – A force of Nature – ABC Australia – Youtube – <https://youtu.be/VuuEMXO0L0Q?feature=shared>