Name: _____ Date: _____

GREEN ORANGE BLUE BRONZE SILVER GOLD

Science Investigation Project Planner: Indigenous Research Methodology – Cultural Indicators

Inspiration for this investigation has come from the work of CSIRO and Kamilaroi scholar, Bradley Moggridge and applied on Country with Yuwaalaraay People of Dharriwaa (Narran Lakes).

You will explore cultural indicators of environmental change (e.g. drought, seasons, climate changes, flooding, availability of food sources), using an Indigenous Research Methodology.

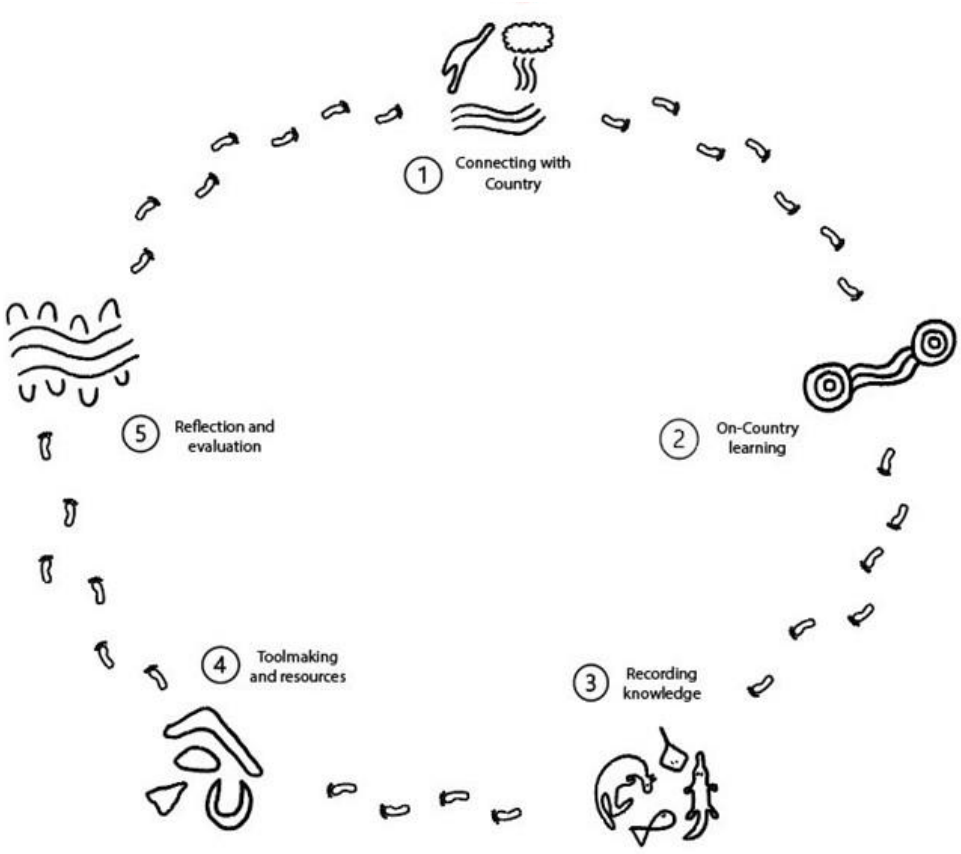

Figure 1ndigenous Research Methodology (Fabila et. al. 2025)

Use this planner to organise your investigation.
Remember that your investigation should be:

- **Indigenous led:** this methodology relies on respectful relationships and consent from Community to collect and share their knowledges.
- **Embedded in Country:** Indigenous people have been observing Country for millennia, they comprehensively understand all elements and can forsee the flow on effects of changes to other parts of Country. This investigation honours and respects that knowledge.
- **Reliable:** Repeating the procedure multiple times or collecting data from more than one source will improve the reliability of the data collected. Someone repeating the procedure should generate similar results.
- **Valid:** The procedure and data collection should be specific to the inquiry question.

Introduction

Your name: _____ Date: _____

Your group member's name: _____

Sections of this investigation will be carried out in collaboration with community, and others you will manage independently. Look for these symbols:

Community collaboration

Independent analysis and reflection

What change in the environment are you going to investigate?
Write a research question for investigation below:

What do you think will happen? Make a prediction. Explain why.

Connecting with Country

We believe [changes] are affecting Country. Is this an important issue to your Country and community?

What kinds of changes have you observed?

Planning

On-Country learning

How would you like us to learn your knowledge? Are there any language words or names that you can share?

List the steps you will follow in your investigation.

Draw any sketches here:

Risk assessment

When designing an investigation, it is important to think about safety. A risk assessment will help you to identify the hazards (something that could potentially cause harm) and record the actions/controls that you are going to put in place to reduce the risk.

Activity	Hazard Identification Type/Cause	Level of risk (High, Medium, Low)	Elimination or control measures
e.g. cutting templates with scissors	e.g. cut to skin	e.g. medium	e.g. when using scissors, cut in direction away from the body.
Collecting and communicating cultural knowledge	Misrepresenting Indigenous Cultural Intellectual Property	Low	Ensure all collected information is reviewed by any knowledge holders before it is finalised. Discussing with knowledge holders where knowledge can be shared.

Results

Recording Knowledge

What knowledge would you like us to record?

How would you like us to record your data?

How would you like us to acknowledge your input?

Record your data in a table in your science journal. Don't forget to include headings for each of your table columns (see below for table suggestion).

You can also record your results using words and sentences, by drawing diagrams, taking photos or videos, or using digital devices.

Can you communicate your results using a graph? If it is appropriate to do so, create a graph. Draw your own axes and label them. Give your graph a title.

Explaining your results

Explain your results:

What do the results tell you about Country?

Did the results support your prediction? If not, how were they different?

Toolmaking and resources

What tools, outputs and resources would you like to create?

What can you create to present and communicate the results?

Reflection

Reflect on what you have learnt,

What new knowledge have you learnt that could be applied and shared back with community?

Evaluation

How could you improve the fairness, reliability or validity of this investigation?

What challenges did you encounter in completing this investigation?

Results example

Indicator	**Language name (Examples in Yuwaalaraay)**	**Behaviour related to changes** e.g. during times of drought the frogs stop singing	**Cultural significance**	**Resilience strategies/ recommendations** e.g. Additional environmental water allocations	**Additional notes**
Dreaming stories					
Gali Gurunha	Gali Gurunha (meaning water in the ground)	Location of deep waterholes	Ceremonial, spiritual	Environmental water allocations	
Mammals					
Kangaroo	Bandaarr				
Emu	Dhinawan				
Amphibians/ reptiles					
Goanna	Dhulii (Sand goanna)				
Water (fish, crustaceans, shellfish)					
Yabby (crayfish)	Yin ga				
Insects					
Native bee	Guni				
Birds					
Magpie	Mugarrabaa				
Plants					
Trees (e.g. Coolabah tree)	Giniy (tree) Gulabaa (Coolabah tree)				
Soil					
Black soil	Banuwah				
Red soil	Guwaygalaa				