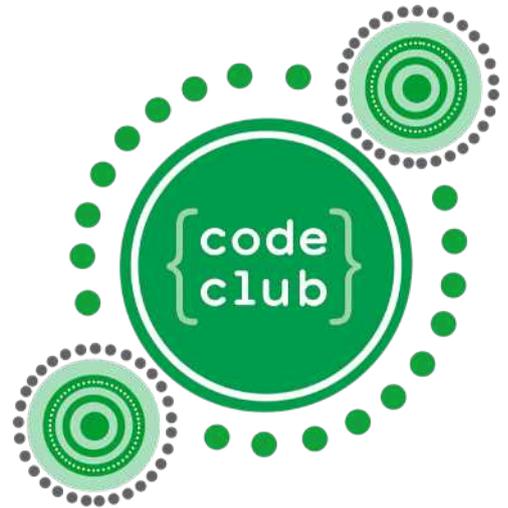


Dhinawan in the Sky



ACKNOWLEDGEMENT

Code Club Australia acknowledges the Kamilaroi/Gomeroi people as the traditional custodians of this story.

First Nations people are the Traditional Custodians of the land and waters of Australia. We recognise their continuing connection to Country and culture, and pay respects to their Elders past, present and emerging. Australia's traditional owners are the world's first innovators.

Dhinawan in the Sky Story:

In this lesson we are telling the Gomeroi story of the Dhinawan (Emu) in the Sky.

This project was made with the collaboration of Tess Reading, a Gomeroi woman from Tamworth, NSW.

Before you code this project learn more about the Dhinawan in the Sky by reading Tess' blog post at medium.com/code-club-australia

Tess refers to herself as a Gomeroi Woman. Some people prefer Gamilaroi, Kamilaraay or Kamilaroi.

Oral communication is valued greatly and used widely within Aboriginal communities to understand the past, present and future. We encourage students to record the story instead of typing it.



Dhinawan in the Sky



Learn about the Gomeri Story of the Dark Emu by building your own animation in Scratch.

INTRODUCTION

What you will make

You will make an animation that shows you the different phases of the story of the Dhinawan (Emu) in the sky.



What you will learn

- How to edit sprites in a Scratch project.
- How to change a sprites costume.
- How to make sprites react when they are clicked.
- How to use coordinates on the stage.

What you will need

HARDWARE

A computer capable of running Scratch 3. This project is suitable for an iPad too.

SOFTWARE

Scratch 3:
either online
[rpf.io/scratchon](https://scratch.mit.edu)
or offline
[rpf.io/scratchoff](https://scratch.mit.edu)

DOWNLOADS

Offline starter project
bit.ly/mhemu

Additional notes for educators

Here is a link to the completed project
<https://scratch.mit.edu/projects/485386641/>

[Check out our blog post for this project with tips, curriculum and supporting material at medium.com/@codeclubau](#)

1. THE DHINAWAN

Let's code the Dhinawan (Emu) to move across the stage.



- Open the Starter Code here - bit.ly/mhemu
- Add this code to the Dhinawan sprite so that it starts in the middle-left of the stage.

```
when clicked
switch costume to Emu1
go to x: -180 y: -100
```



- Add the text for your Dhinawan to start the story.
- Are 2 seconds enough to read this line in your story?

```
when clicked
switch costume to Emu1
go to x: -180 y: -100
say 'This is the story of Dhinawan, the Emu in the Sky' for 2 seconds
```



- Add this code
- This part lets us know who owns the story we are telling.

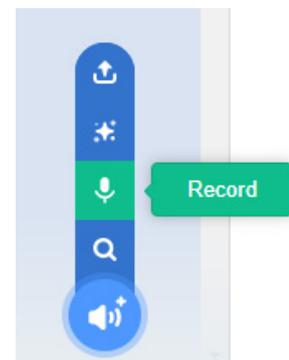
```
when clicked
switch costume to Emu1
go to x: -180 y: -100
say 'This is the story of Dhinawan, the Emu in the Sky' for 2 seconds
say 'This is a traditional story of the Gomerol people from Western New South Wales' for 2 seconds
say 'The Gomerol people tracked the lifecycle of the emu using the stars' for 2 seconds
```

Oral communication is valued greatly and used widely within Aboriginal communities to understand the past, present and future.

There is a lot of typing to tell this story in written form. If you prefer, you can record your own telling of the story. Use the record feature on the sounds tab.

Replace each of your 'say' blocks with a 'sound' block once you've recorded each section of the story.

```
play sound Recording1 until done
```





- Add code so that your Dhinawan moves until it reaches the top-centre of the stage.
- Test your code by clicking the green flag.

```
say The Gomerai people tracked the lifecycle of the emu using the stars for 2
say In April and May the Emu appears to be running for 2 seconds
say This is when the Emu is breeding for 2 seconds
```



In March you will begin to see the female Dhinawan (which means 'Emu' in the Gamilaraay language) making her way into the Southern night sky. Over the next few months, the female Dhinawan will change telling us about what is happening on Country. During April and May, the female Dhinawan will appear to be running, which tells us that it is Emu mating season, and that soon it will be time to collect the eggs.



- Add code so that your Dhinawan moves until it reaches the top-centre of the stage.
- Test your code by clicking the green flag.

```
say In April and May the Emu appears to be running for 2 seconds
say This is when the Emu is breeding for 2 seconds
glide 5 secs to x: 22 y: 135
```



- Add code to change the costume of the Dhinawan.
- We also need to add more text to explain the next phase.

```
say This is when the Emu is breeding for 2 seconds
glide 5 secs to x: 22 y: 135
next costume
say In June and July we can collect the eggs for 2 seconds
```



During June and July, the female Dhinawan will have laid the eggs, it is then the male Dhinawan's responsibility to sit on the eggs.



- Add code to change the costume on your Dhinawan for the next stage.

```
say In June and July we can collect the eggs for 2 seconds
next costume
say In August we stop collecting eggs for 2 seconds
```



Around mid-to-late August the eggs hatch, and the Dhinawan shape in the sky now appears to be two egg shapes. At this time the male Dhinawan takes chicks out and teaches them about the land and where to find appropriate food, water and shelter. During this time on earth, we stop collecting the Dhinawan eggs.

- Add the last section of code to animate the final phase of the Dhinawan in the Sky.
- The Dhinawan has to face down, instead of up, so we have changed the direction by 180 degrees.

```
say In April and May the Emu appears to be running for 2 seconds
next costume
say In August we stop collecting eggs for 2 seconds
switch costume to emu2
point in direction 180
glide 5 secs to x: 200 y: -130
say From November the Gomeri believe the emu has travelled to earth as it disappears below the horizon for 2 seconds
```

- Add the direction block at the beginning as well, to reset our code each time.
- Test your code by clicking the green flag.



```
when green flag clicked
point in direction 90
switch costume to Emu1
go to x: -180 y: -100
say In April and May the Emu appears to be running for 2 seconds
```



During September-October, nearing the end of spring, we will start to see Dhinawan disappear back to the South West. We learn from this cycle: the cycle of the Dhinawan's mating season and the roles that we play on earth in relation to the Dhinawan on the land.

2. THE EMU'S NEST

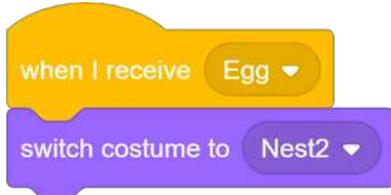
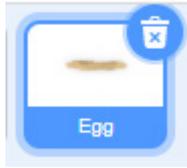
The baby emu chicks are at the bottom of our stage. Let's add code to match the animation in the sky. This section switches between sprites, so we've indicated which one to code on the right.

- Add a Broadcast block to alert the Egg to what costume it should be using.

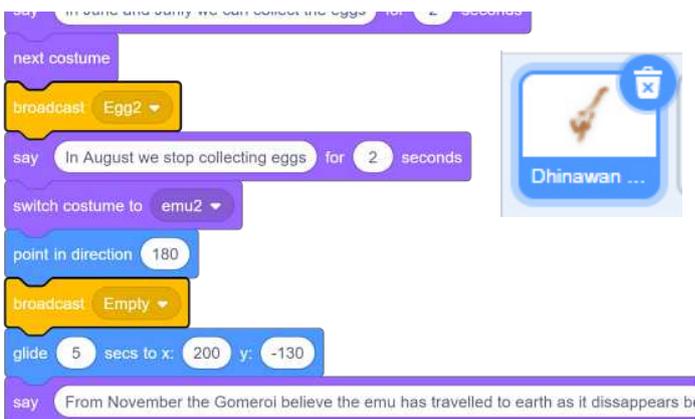
• First, add this block to the Emu Sprite.



- Then, add these blocks to the Egg Sprite.



- Go back to your Emu Sprite.

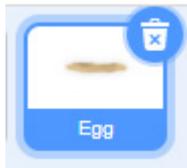
• Add two more broadcast blocks to the Emu Sprite.



- Go back to your Egg Sprite.

• Add the corresponding action to the Egg Sprite.

• Test your code by clicking the green flag.

- Does your nest reset once you start the animation again?

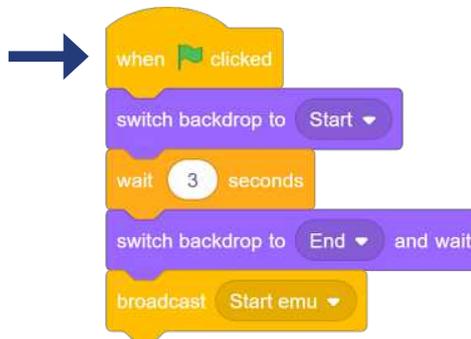
• Add this code to your egg.



3. ADDING AN ACKNOWLEDGEMENT OF COUNTRY

It's important that both Indigenous and Non-Indigenous Australians acknowledge the Indigenous land that they are on and the People whose story we are telling. We're going to add an Acknowledgement to the Gamilaroi People at the beginning of our animation.

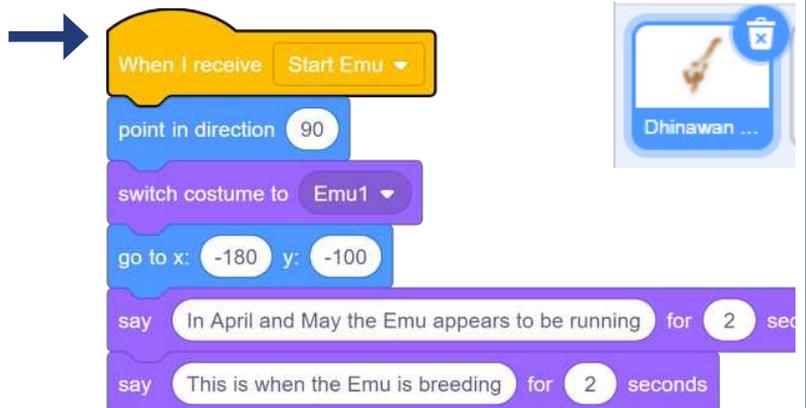
- Click the Stage.
- There are two backdrops available.
- Add this code.



```
when green flag clicked
  switch backdrop to Start
  wait 3 seconds
  switch backdrop to End and wait
  broadcast Start emu
```



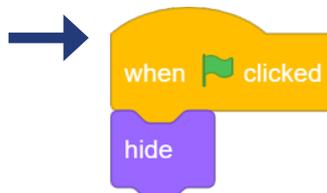
- Click the Emu Sprite.
- Change the 'When Green Flag Clicked' to a 'When I receive' Block.



```
When I receive Start Emu
  point in direction 90
  switch costume to Emu1
  go to x: -180 y: -100
  say In April and May the Emu appears to be running for 2 seconds
  say This is when the Emu is breeding for 2 seconds
```



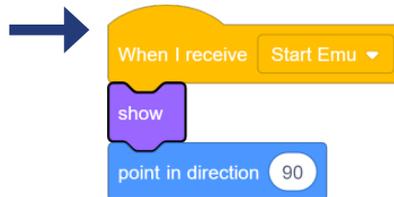
- Add code so that the Emu hides when your Acknowledgement of Country is showing.



```
when green flag clicked
  hide
```



- Add code so that the Emu reappears.
- Test your project.



Challenges:

Add your own Acknowledgement of Country

- Do some research on what Country you are currently on. Can you add a second Acknowledgement to your animation?
(Don't remove the current one. We need to make sure we always Acknowledge the owners of this story).

Below the horizon

- At the end of the season the Dhinawan disappears below the horizon. In our animation, the stars are on top of the horizon because it's our background! Can you change the background and the code so that the Dhinawan disappears correctly.

Congratulations you're a Moonhack changemaker!

Don't forget to talk to an adult about registering your participation at moonhack.com

