Maths Week/ Wiki Pāngarau 2025

Survivor Series/Kia Mōrehurehu

Day 4 Set D

For students

WHAT TO DO FOR STUDENTS

1 **You can work with one or two others. Teams can be different each day.**

2 **Do the tasks and write any working you did, along with your answers, in your maths book.**

3 **Your teacher will tell you how you can get the answers to the questions and/or have your work checked.**

4 **When you have finished each day, your teacher will give you a word or words from a proverb.**

5 **At the end of the week, put the words together in the right order and you will be able to find the complete proverb! Your teacher may ask you to explain what the proverb means.**

6 **Good luck.**

VERIFYING AI GENERATED DATA

Artificial Intelligence (AI) is becoming common place. While AI can be useful, it is important to **double-check facts** if accuracy is critical, **ask for sources** or request a web search if you need up-to-date or verified information and to **use it as a starting point**, not the final authority.

To create a dataset about New Zealand birds the following prompt was used in an AI tool. Note the prompt includes the variables of interest and the specific New Zealand birds that the information was wanted for.

> *Data information about birds I want length, weight, diet, habitat, is the female or male larger, predominant colour for females, predominant colour for males, beak colour and conservation status for the north island brown kiwi, tui, bellbird, fantail, kaka, morepork, rifleman, tomtit, kereru, north island robin, south island saddleback, kea, variable oystercatcher, pukeko, toroa, new zealand dotterel, takapu, little penguin, kakapo, takahe, weka, kotare, blue duck, shining cuckoo.*

Activity 1 – verification

In this activity you will work in groups of 2-4 to verify the data that was generated using the AI tool and the prompt given above.

Each group will get three New Zealand birds to verify. To verify, it is recommended that you use at least two different sources to check the information given. Two sources are suggested, and you may find a third source to use. The sources can be online or in print form.

In your group you will check the information given by the AI tool against information provided by New Zealand Birds Online, Wikipedia (New Zealand Birds) and one other source.

Once the facts are checked you will need to update the information in the spreadsheet provided by your teacher (Activity 2).

Your teacher will give your group the information for the three New Zealand birds you need to verify. On the next page is an example of what the information looks like.

Bird	Length	Weight	Diet	Habitat	Is Female or Male Larger?	Predominant Colour (Female)	Predominant Colour (Male)	Beak Colour	Conservation Status	New Zealand Birds Online	Wikipedia	Other source _____
North Island Brown Kiwi	45–55 cm	2.8–3.9 kg (female), 2.2–2.8 kg (male)	Worms, insects, fruits, seeds	Forests, scrublands	Female	Reddish-brown to dark brown	Same as female	Pale ivory	At Risk – Declining	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**
Tui	27–32 cm	65–120 g	Nectar, fruits, insects	Forests, shrublands, gardens	Similar	Duller black-green	Iridescent black-green with white tufts	Black	Not Threatened	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**
Bellbird	17–20 cm	25–40 g	Nectar, fruits, insects	Forests, shrublands, gardens	Similar	Olive green	Brighter olive green	Black	Not Threatened	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**	**Length** **Weight** **Diet** **Habitat** **Larger** **PC F** **PC M** **Beak** **CS**

Write any corrections on the sheet. Use the last three columns to tick (for correct information) or cross (for incorrect information) when checking the different sources.

Activity 2 – updating

Your teacher will give you a link to the spreadsheet so that you can update the information that needs updating based on your work in Activity 1.

Go into the spreadsheet and find the three birds that your group verified and update the information that needs to be updated. Highlight the cell (change the colour) so that we know it has been updated.

Activity 3 – cleaning the data

Have a look at the data that is in the spreadsheet, and on your birds sheet.

1. What do you notice and wonder about the different variables and the data that is recorded?
2. How might you suggest the data is rearranged, or changed so that it can be used in a statistical software tool?
    a. Hint: When graphing numbers how about the numbers in intervals?
    b. Hint: When graphing numbers do we need the unit recorded with the numbers?
    c. Hint: How might you manage the different foods that birds eat?

   d. Hint: what other variables might need to be tidied up to make them easier to graph?
3. Agree as a class on how to tidy the data and update the spreadsheet for your group's birds so that the data can be displayed using a statistical software tool, e.g., CODAP.

Activity 4 – exploring the data

Your teacher will give you instructions on how to undertake your statistical investigation. This may include using an online statistical software tool or doing the analysis by hand using pen and paper.

PROBLEM: Pose an investigative question for a variable in the dataset that you are interested in.

PLAN/DATA: The data has been collected/verified/updated in activities 1-3.

ANALYSIS: Using a statistical software tool, e.g., **CODAP**, make graphs to help answer your investigative question. Describe what the graph shows about the variable of interest, explaining what you notice about the variable for these New Zealand birds.

CONCLUSION: Answer the investigative question you asked using evidence from your analysis.