What's the Weather?

NEW: April 2025

Year level: 1

Approximate number of lessons: One that repeats throughout the year

Learning goals

- Engage in stories or games that involve chance-based situations and:
  - decide if something will happen, won't happen, or might happen
  - identify possible and impossible outcomes (e.g., what might happen next).

Resources

- Probability **mini math movie** from Scratch Garden
- **Met Service posters** (download from the bottom of the linked page)
- Class weather calendar
- Agreed symbols for different sorts of weather (to draw or glue onto the weather calendar
- Te Reo Māori and English words for the weather symbols (eg stormy, marangai)

Activity

Introduction

This lesson asks ākonga to actively use the language of chance, possible, impossible, will happen, won't happen, might happen when predicting the weather for the day.

The kaiako creates a daily routine where ākonga look at the weather they can see outside their classroom and record in a calendar a symbol to show what the weather is for that day. Using this weather data and observation skills ākonga will make predictions about the weather (later in the day, the next day, the next week). They will use the data collected to make predictions and talk about their predictions using simple language of probability. Before this lesson, have ākonga view the **probability mini math movie** and discuss the information it contains.

❓PROBLEM:

Pose the investigative question **'What will the weather be _____?'** This investigative question intentionally allows for the kaiako to add 'today', 'next Monday, in one week' etc to the end of the

investigative question so that they can keep asking the same investigative question again and again throughout the year, extending the complexity as ākonga skills grow.

📋PLAN:

Ensure that you have a display in your classroom that features weather posters, vocabulary, symbols, and a blank monthly calendar to record the weather on. You may also wish to use other items in your display such as umbrellas, gumboots, sunglasses etc to draw people in to look more closely at your data collection. Spend some time discussing and agreeing on symbols or pictures that will represent different weather conditions. For example if it is a cloudy, windy day that is sunny in some parts will you put symbols for all these? Will you record the weather on your chart at the same time everyday? What will you do if you miss a day of collecting the weather data? Will this remain blank or will you back map that?

As a class gather to discuss the weather for that day. Spend some time prompting ākonga to notice what has been happening with the weather in the days and weeks leading up to today.

You could ask

- How many days have been sunny in the last two weeks? Cloudy? Windy? Rainy?
- What do you notice?
- Are there any patterns?
- Do they fit with what we expect the weather to be in this season?
- How do you explain that?

Now ask ākonga to make a prediction about the weather for the next day/week using the language of chance, possible, impossible, will happen, won't happen, might happen. For example ākonga might say *'it is possible that tomorrow will be a rainy day because today is rainy.'* Or, *'there is a chance that it will be windy tomorrow'.*

╫DATA:

Now you are ready to have ākonga make a prediction in their weather diary. Give them time to locate the day in the future on their weather diary using the class agreed symbol to record their prediction.

Ākonga now spend some time explaining and justifying their prediction to their **Talk Partner**. The Talk Partner can say 'Why do you think that?', 'I agree because …' or 'I disagree because …'

When you get to the day that ākonga have made their weather prediction about (e.g., the next day, the next Monday etc) get the weather diary out and check what the prediction was against the actual weather you are experiencing on the day. Ask 'Was your prediction correct?' As ākonga become confident in doing this ask them to discuss questions such as

- Is it possible for it to snow today?
- Might it be windy tomorrow?
- Will it be both windy and sunny on Monday?
- Is it possible for it to be raining tomorrow?

ANALYSIS:

To help answer the investigative question ākonga need to be supported in viewing and organising the data that they collected. The kaiako could have them share their predictions and what the actual data was in small discussion groups. Next the discussion group could be guided to agree on a sentence in response to the investigative question. For example, most of us predicted that tomorrow the weather would be windy but when we got to that day it was actually sunny with no wind. It is possible that it will be windy.

Alongside this exploration of probability language, classes could make a data visualisation of the weather across the month, using small images and creating a picture graph as they go through the month. This real weather data could be used to inform future predictions.

CONCLUSION:

Kaiako support ākonga to make statements based on what they are seeing in the weather they have recorded already to answer the question **'What will the weather be _____?'**

For example ākonga could say 'When we look at the weather for Monday's so far in April we notice it has rained twice in the three weeks, we think that it is likely to rain on the last Monday in April.

Further discussion could be had about weather prediction and the ways that this is shared. Weather predictions are not always correct and this is a great experience for ākonga to explore probability when checking their own predictions and what the weather turned out to be.

Notes for teachers

Many teachers have calendar maths, make sure you have a calendar that shows the whole month so you can see the weather data as added, talk about 'in one week', 'so far this month' etc. When talking about yesterday, today and tomorrow include talk about weather patterns that you notice. You may find the talk prompts below useful to support you.

It would be a really useful discussion to have about weather in different parts of Aotearoa on the same day. You could use the Met Service or Niwa weather to check the weather in these places after talking about the likelihood of the weather in these other places. The places you select could be places ākonga have visited or places where people significant in their lives live.

<u>Weather Prediction Sentence Starters to Promote Ākonga Talk</u>

These sentence starters are provided as a support for kaiako who wish to use them. If you are confident in your ability to explicitly teach the language of probability through your daily weather routine or calendar maths you might like to scan for additional ideas.

I wonder what chance there is for rain before lunch today?

Tell your talk partner what your prediction is for the weather at lunchtime today, and why you think that.

Talk to your partner and together come up with some predictions for the next three days based on patterns you can see from your weather calendar.
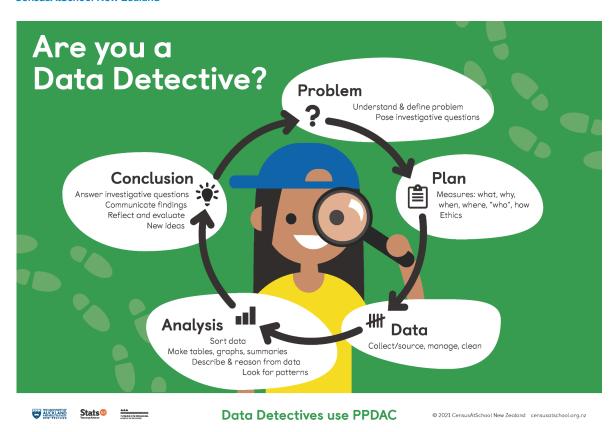
What is the chance of it snowing today? What makes you say that?

Is it possible for there to be sunshine where you live today? In a place you know in the South Island? In a place you know in the North Island?

Do you think that it will be a good day for fishing tomorrow? What weather do you need for it to be good fishing weather?

Resources to purchase and print

There are lots of beautiful Aotearoa visuals that you can purchase to print and use, such as this one available from **Green Grubs** or **Te Reo Māori Classroom**.

Data Detective Poster - CensusAtSchool New Zealand