Te hē ika

NEW: June 2025

Year level: 1

Approximate number of lessons: 1

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

- PER GROUP you will need - 8 corks, 8 cup hooks, fishing line, masking tape, marker pen, 2 bamboo stakes for creation of 2 rods.
- PER GROUP you will need - Large container or tuff tray to be the moana
- Co-constructed recording sheet for each group of ākonga

Get the pieces ready so that after planning ākonga can begin fishing and collecting data immediately. To make the game pieces you will need to attach a cup hook to the top of each cork. Write on the bottom of each cork. You will write on the bottom of the cork the following B M M S S S S S (Big, medium, small). Place the corks, which will be the fish/ika, into a plastic cube or tuff tray ready to catch. Make your fishing rods by taping a cup hook, attached to a piece of fishing line, onto a bamboo stick. The longer you make the line the more challenging the fishing will be.

Activity

Introduction

This lesson asks ākonga to experiment with a chance-based game and talk about what they notice. When introducing the lesson it could be helpful for ākonga to share their experiences of fishing games and fishing in authentic contexts. Fishing always has an element of chance and there is no guarantee that you will catch the biggest, best or most desirable fish.

?PROBLEM:

Tell ākonga that they will be working in a small group and having a turn to catch a fish. They will have two turns to catch a fish. There are fish labelled B, M or S. They are trying to catch the biggest fish. The biggest fish/ika are ones with B written on the bottom, M are the next biggest fish/ika and S are the smallest fish/ika. Explain that in this lesson ākonga will be exploring the chance of catching a big fish/ika.

We will explore the investigative question **'What is the chance of catching a big fish/ika?'** The answer to this question will depend on how many fish/ika are in your moana and how many are labelled with B.

Take the time to discuss that when fishing there is a chance of fishing up any, or none of the fish when casting the rod. Make sure when you create your fish/ika that there are B, M and S written in marker on the bottom of the cork so comparisons can be made using the language of chance, certain, possible, or impossible'.

PLAN:

Share with ākonga the investigative question **'What is the chance of catching a big fish/ika?'** that will be investigated. Encourage ākonga to discuss their personal experiences with their **Talk Partner** before talking as a whole group. Bring together ākonga suggestions for when they have caught a big or desirable fish/ika. What made fishing challenging? Does everyone manage to catch the fish/ika that they want to? Why or why not?

Discuss the need to explore the investigative question through playing the game several times before playing and noting what is caught each time the rod is cast. Make sure ākonga put the fish/ika back into the moana and stir it around before casting their rod again.

Decide on the recording sheet for the data collection. This is an important step so that every group of ākonga are collecting the agreed data to contribute to the analysis discussion. The kaiako may support ākonga to record this data by co-constructing the recording sheet with ākonga before they go off to collect the data.

DATA:

After becoming familiar with the fishing game ākonga are now ready to play and collect data to answer their investigative question.

The group takes turns to cast their rod and catch a fish/ika. Have one ākonga record the label B, M, S on the fish/ika everytime one is caught. Repeat this process so everyone has a turn to fish..

After collecting data, return to the whariki and have each group sit together and discuss what they noticed when looking at their sheet. While ākonga are discussing their results the kaiako roves and supports by using prompts such as 'What was the biggest size fish/ika you caught? How many big fish/ika did you catch? How many small fish/ika? Did everyone catch a fish/ika when they cast their rod?

ANALYSIS:

The kaiako supports each group to share their data with the whole class. The kaiako could use tally marks and write the numeral at the end to model a useful way of counting data when showing the data from all groups.

The kaiako asks questions such as:

- 'What do you notice about how many fish/ika your group managed to catch?
- 'How many were B fish/ika?' What does that make you think?
- Do you think there are many fish/ika with B in your moana?
- Did every group manage to catch a fish/ika with B?
- How do you explain why a fish/ika with B was not the most caught fish/ika?

- What do you notice about the letter on the fish/ika that was the most caught?
- Why do you think that has happened?
- What does that mean for your chance of catching a fish/ika with B is?
- Is it possible to catch a fish/ika with B everytime you fish?
- Is it a good chance?

CONCLUSION:

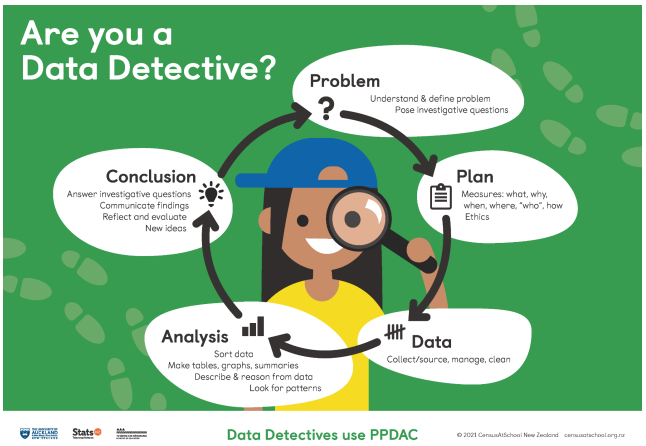
Answer your investigative question **'What is the chance of catching a big fish/ika?'** Is it a good chance or a small chance? Might it happen? After this lesson ākonga may wish to keep exploring playing this game. You could have the game available for further investigation, adding more fish/ika to change the chances or changing the numbers on each set of fish/ika. For example if you have 5 fish/ika, one big fish/ika, how would this change if they now had 10 fish/ika? Or 5 fish/ika but 3 of them have B on them?

Notes for teachers

Fishing is an activity that many cultures have strong ties and hold cultural knowledge around. Kaiako can draw this knowledge out by opening the learning with asking ākonga about their own fishing experiences.

If you wish to take this lesson outside you could create a loose parts fishing provocation that allows ākonga to imagine they are Māui fishing up Te Ika a Māui (the North Island). There are many high quality Aotearoa illustrations, picture books and oral storytelling prompts that allow for oral language experiences to retell this story as a community of learners.

We use the PPDAC cycle in probability as well as statistics.



[Data Detective Poster - CensusAtSchool New Zealand]