

P Y1 Who probably sank the boat?

NEW: January 2026

Year level: 1

Approximate number of lessons: 1

Learning goals

- Engage with a story that involves 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

- A copy of the book 'Who Sank the Boat' by Pamela Allen or a screen to watch this [video](#) of the book being read aloud
- Large vocabulary cards with the words chance, possible, impossible, will happen, won't happen, might not happen.
- Plastic containers, plastic lids or paper to make a paper boat
- [Video](#) of how to make a paper boat
- Various small items to represent different 'animals' to place into the boat
- A tuff tray filled with water, water play trough or the school swimming pool

Activity

Introduction

This lesson asks ākonga to listen to a story and talk about what they notice. When introducing the lesson it could be helpful to read the book right through before rereading and discussing the chance or probability. This would help ākonga to have an understanding of the story and who all the characters in it are.

? PROBLEM:

Explain that in this lesson ākonga will be exploring the story through a probabilistic view for this lesson. We will explore the investigative question **"Is it possible for Pig to sink the boat?"** This question allows for repeated discussions with each animal character as the focus so that ākonga have multiple opportunities to state their opinion and use evidence from the story to support their opinion.

Take the time to discuss that each animal character gets into the boat and support ākonga to notice what is happening with each additional animal to the position of the boat in the water.

PLAN:

Share with ākonga the investigative question “**Is it possible for Pig to sink the boat?**” 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 shared their ideas. Before reading the page with Pig ask Is it possible that Pig could sink the boat? Do you think it will happen or will not happen?

What is happening in the pictures when Pig hops into the boat? What do you notice? What does that make you think? Discuss the need to explore the investigative question through sharing our opinions based on what we can see happening in the story. After discussing the story and each animal, ākonga are now ready to begin collecting data about what happens in the book by making your own ‘boats’ and using materials to be the animals.

Explain that you are going to make your own boats and use some small items to be the ‘animals’. You are going to predict whether your item representing a ‘Pig’ will sink the boat if the items are placed in the boat in the same order as in the story (Coe, Donkey, Pig...). The unknown nature of the outcome will make the data collection engaging and motivating. If all the animals were represented by feathers would it be possible or impossible to sink the boat? What about if they were different items?

DATA:

You could support ākonga by making a table together for recording what happens, copy master [here](#).

Animal character	Possible	Impossible
Cow		

Animal character	Possible	Impossible
Donkey		

Animal character	Possible	Impossible
Pig		

Animal character	Possible	Impossible
Sheep		

Animal character	Possible	Impossible
Mouse		

Or you may prefer to have all data on one recording chart. If you do this you will need to support ākonga to record along the correct row.

Recording chart for Who Sank the Boat? animal characters. Copy master here		
Which animal character	Possible	Impossible
Cow		
Donkey		
Pig		
Sheep		
Mouse		

You will not be able to collect class data unless every group uses the same sort of boat and items to represent each animal character. However, interesting discussion could be had about where the animals have been placed within the boat and the order of adding each animal. Ākonga may be able to talk about some patterns they noticed and share their emerging personal theories.

ANALYSIS:

To help answer the investigative question the data collected needs to be looked at on a group by group basis (unless the whole class used the same materials). The kaiako can call on each group to say, 'possible or impossible' for each animal character and record this on the whiteboard, shared screen or in a modelling book so that all ākonga can see what each group thought and then what their trials showed as their results. The kaiako could use tally marks and write the numeral at the end to model a useful way of counting data for each of possible or impossible.

Ask 'What makes it impossible to sink the boat?' Anything? Or is it always possible to sink the boat? Could Pig ever be the one to sink the boat? What would have to happen to make this true?

CONCLUSION:

Now answer the investigative question **“Is it possible for Pig to sink the boat?”** The kaiako can scribe the statements ākonga make in response. The answer as to ‘possible’ or ‘impossible’ depends on the items selected to represent the animal characters. It is most likely that it is possible for Pig to sink the boat (unless all the characters are represented by something very lightweight).

The kaiako could go on to ask **‘What is the chance of Pig sinking the boat?’**. Is it a good chance or a small chance? Might it happen? In Year 2 ākonga use the language of likely and unlikely so if it makes sense then you may model the use of this language as a kaiako think aloud for those Year 1 students who have grasped the Year 1 concepts already.

After this lesson ākonga may be motivated and interested to explore the concepts of ballast, buoyancy and things that float. You could provide a provocation using this as the basis, including open ended materials to create various boats and animals to test their predictions about what is likely and unlikely.

You could ask further questions such as

- If the animal characters got into the boat in a different order would that change things for when the boat sank?
- If there were more than one of some of the animal characters but there was still a maximum of five animals would this change the outcome? In what ways?

Notes for teachers

The more student choice you give during this exploration of the investigative question the more variable the results. You know your ākonga best so it is for you to decide whether to start with all groups having the same materials (and placing the small items representing the animal characters on in the same order) or whether it would be appropriate for them to explore the probabilities when adding animals in different orders.

Use **Talk Moves** to guide your ākonga in discussing their ideas, making sense of what others are saying and coming to shared understandings.

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



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Recording sheet for 'Who probably sank the boat?' | Individual tables

Animal character	Possible	Impossible
Cow		

Animal character	Possible	Impossible
Donkey		

Animal character	Possible	Impossible
Pig		

Animal character	Possible	Impossible
Sheep		

Animal character	Possible	Impossible
Mouse		

Recording sheet for 'Who probably sank the boat?' | Combined table

Recording chart for Who Sank the Boat? animal characters.		
Which animal character	Possible	Impossible
Cow		
Donkey		
Pig		
Sheep		
Mouse		