







Topic: Observing weather

Aboriginal and Torres Strait Islander histories and cultures

In this lesson, students will explore the way Aboriginal peoples and Torres Strait Islander peoples observe, understand and use their knowledge about natural phenomena.

Discovering weather types: Sunny, windy

Lesson concepts

-  Daily and seasonal changes in our environment, including the weather, affect everyday life
-  Science involves exploring and observing the world using the senses
-  Questions can obtain responses
-  Observations can be made using the senses
-  Observations can be discussed and ideas can be represented
-  Observations and ideas can be shared

Learning alerts

Be aware of:

- students using generalisations (for example, when it sunny it is always warm or hot).

Suggested next steps for learning

- Explain to students that generalisations are not always accurate (for example, cold weather can have sunny skies and rainy weather can have warm temperatures), using images to support explanations.

Today students will:

- ▶ understand that the effects of varying amounts of sunshine and wind are observable
- ▶ understand that weather scientists may use symbols to communicate their observations of the weather.

Resources

Digitals

Video — How wind helps when finding food using traditional knowledge (1:13)

Slideshow — What would a weather scientist say?

Find and prepare

Sheet — Letter from Wilma 3

Sheet — Describing how the wind and sunshine look and feel

Sheet — Wind direction arrow (cut out)

A bag or container to hold up to five objects for investigating the sun and wind, for example: paper or ribbon, table tennis ball, plastic or soccer ball, ice cube, aluminium foil

Materials to make two 'islands', for example: blocks or small toys

Material for a light canoe, for example: a patty cake pan or small rectangle of paper

Key terms

observe, weather

For definitions and explanations of terms, please see the [Glossary](#).

Lesson

Note

The teaching of the outdoor investigation part of this lesson is best suited to sunny conditions with presence of wind of any strength.

Share ideas about sunshine and wind

Say to students

“ In this lesson, you will learn more about sunny and windy weather. To start, here is another letter from Wilma. ”



1. Display **Sheet** — [Letter from Wilma 3](#) and read the letter to students.

Focus questions

Q: *What type of weather was it like for Wilma's day at the beach?*

A: Warm and sunny with just a gentle wind.

Q: *Is this good weather for the beach? Why/why not?*

A: For example: yes because it's nicer at the beach when it's sunny; it's good to go swimming when it's warm or hot.

Q: *What types of weather would not be good for a visit to the beach? Why?*

A: For example: rainy/stormy/very windy — because when it's cold you can't go swimming and when it's windy the sand blows in your eyes and stings your skin.

Q: *Would it matter if there were clouds in the sky? Why/why not?*

A: For example: not really unless they were grey rain clouds.

Say to students

“ When you visit a beach or a park, as soon as you arrive, your senses give you information about the weather and what your visit might be like. Tell me the senses you would use and what you might observe. ”

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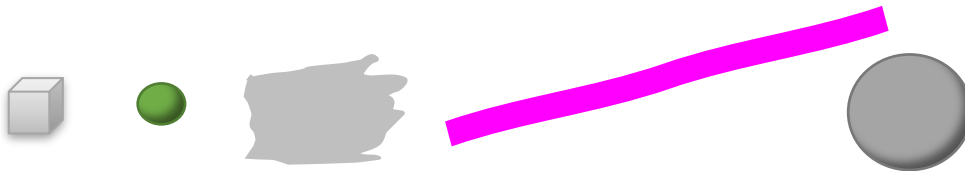
Consider the observable effects from current sun and wind conditions

2. Collect the five objects and the **Sheet** — [Describing how the wind and sunshine look and feel](#).

Say to students

‘ We are going to go outside and use our senses to make observations of the sun and the wind today. We are also going to explore the effects of sun and wind on some objects. Remember when we are observing the effects of the sun we **must never look directly at the sun**, because it will damage our eyes. Make yourself sun safe and then we will go outside. ’

- a. When sun safe, move outside with your chosen objects.
3. Before looking at the objects, discuss the current weather conditions, particularly the sunshine and wind.
- a. Use the **Sheet — Describing how the wind and sunshine look and feel** to help students make more specific descriptions of the sun and wind.
4. Explore the objects. Tell students to:
- a. select an object and identify it
 - b. predict the effect the sunshine and wind might have on this object.



- c. ask the student for ideas on how to test the effects of the sun and wind on the object
- d. use the student ideas to test
- e. suggest another idea if suitable
- f. discuss as you observe and then repeat with another object.

Note

Effects on the objects could include: movement, shimmering or shining light, melting, feeling warm, feeling softer, appearing a different colour/s.

Say to students

‘ Of course the sunshine and the wind are not the same every day. If they had been different, like some of the other types on the **Sheet — Describing how the wind and sunshine look and feel**, then our observations would have been different too. ’

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Explore Indigenous perspectives on wind

Say to students

Aboriginal peoples and Torres Strait Islander peoples have used their science knowledge about the wind in their everyday lives for a very long time.

By knowing which direction the wind is blowing, they are able to use the wind to travel by canoe and find food.

5. Example 1 — Wind and canoes.

Say to students

We are going to use some objects to help us understand this better.



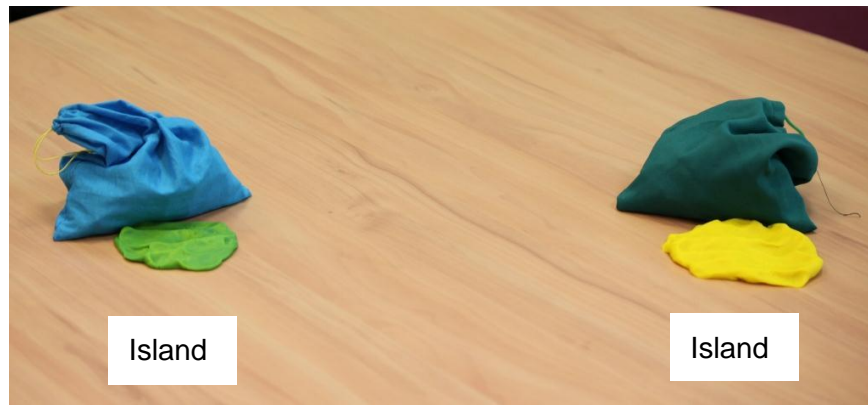
- a. Display the arrow cut from **Sheet** — [Wind direction arrow](#).
- b. Collect two objects to represent islands and a patty cake pan or small rectangle of paper and move to a smooth surface.

Note

The following pictures show you how to carry out a demonstration of the effects of wind when travelling by canoe and the corresponding explanation. Students will understand better by actually doing the demonstration.

Say to students

We are going to create two islands on the table and name them island 1 and island 2. Pretend that people live on both islands and like to visit each other for special ceremonies. They can only travel by canoe (the patty cake pan).



Say to students

- Place the paper canoe on the table near island 1. Gently blow the canoe from island 1 towards island 2.



Say to students

- Place the wind arrow in the direction that I was blowing. This is the direction of the wind. Even though the people were paddling the wind also helped move the canoe to island 2.



Say to students

Think about what would happen if the wind was blowing against the canoe, for example, from the other direction. You may have experienced this walking or riding your bike against the wind.



Say to students

Next move the wind arrow to a side position. The people in the canoe still want to travel from island 1 to island 2 but now the wind is blowing across them. Move the canoe to show how you think the wind might affect the canoe if the wind was blowing across the canoe.

What do you think the wind will do to the canoe?



Say to students

Torres Strait Islander peoples and Aboriginal peoples have used this science knowledge for a very long time to help them travel safely and more quickly by canoe.

6. Example 2 — Wind and animals.

Say to students

People have used their understanding of the wind for many thousands of years.
 Many animals use their sense of smell to let them know what is happening around them.
 Smells are moved by the wind.
 You may have noticed an animal, like a dog or cat, smelling the air.
 This is because the wind is carrying smells and a smell has caught their attention.
 We are now going to learn about how Aboriginal peoples and Torres Strait Islander peoples use the wind when finding food.

- a. View **Video** — [How wind helps when finding food using traditional knowledge](#).

This video explains how Aboriginal peoples' knowledge of the wind helps them position themselves so that their scent does not get blown towards an animal they are hunting.



Say to students

These are just two of the ways in which Torres Strait Island peoples and Aboriginal peoples have made and used observations of the wind in their everyday lives.

RL Analyse and represent the observable effects of sunshine and wind

Say to students

We have learnt that sometimes weather scientists use symbols to represent their observations. To finish this science lesson, you are going to use your understandings of wind and sunshine to decide on the symbols that best describe the weather in some photos.

7. a. Watch the **Slideshow** — [What would a weather scientist say?](#)
 b. Discuss what symbols could be used to explain the pictures in the slideshow.