



Teacher Resource

Ocean Temperatures

Focus Questions

As a class, discuss the stories featured in the BTN Book Week 2026 Special. Students will then respond to the following focus questions:

1. What are the two big reasons ocean temperatures have been climbing?
2. What is El Niño and how does El Niño affect ocean temperatures?
3. The ocean works a bit like a heat sponge. What does that mean?
4. How are corals and most marine organisms affected by warmer water?
5. What did you learn watching the BTN story?

Activity: Comprehension

After watching the BTN Ocean Temperatures story students can answer one or more of the following questions, for example:

- What are some keywords from the BTN story?
- What did you learn from the story? Write a summary.
- What is the purpose of this news story?
- Why do you think BTN covered the story?

Activity: Mind map

Discuss the information raised in the BTN Ocean Temperatures story. As a class, build a mind map with RISING OCEAN TEMPERATURES in the centre. Include four main branches.

- *What causes it?* What could cause ocean temperatures to rise?
- *What could be affected?* Think about fish, coral, seaweed, turtles, whales and other marine life.
- *What could happen?* Think about changes to habitats, food sources, migration and food webs.
- *What could we do?* Think about ways scientists, communities and governments could respond.



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KEY LEARNING

Students will develop an understanding of how rising ocean temperatures affect marine ecosystems.

CURRICULUM

Science – Year 5

Examine how particular structural features and behaviours of living things enable their survival in specific habitats.

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions.

Science – Year 6

Investigate the physical conditions of a habitat and analyse how the growth and survival of living things is affected by changing physical conditions.

Investigate how scientific knowledge is used by individuals and communities to identify problems, consider responses and make decisions.

Activity: Ocean Research

Discuss the information raised in the BTN Ocean Temperatures story. What questions were raised in the discussion and what are the gaps in students' knowledge? Students will choose one or more of the questions below to research and respond to.

Research Questions

- How do scientists know that ocean temperatures are changing?
- Why is the ocean important to Earth's climate system?
- Why might a small change in average ocean temperature have large effects on ecosystems?
- What are marine heatwaves and what impact do they have on marine ecosystems?
- How could one change in an ecosystem affect many different species?
- Why might some species cope with warmer water better than others?
- Which actions could make the biggest difference to the future health of our oceans?

Activity: Rising temperatures and marine life

Students choose one marine organism to investigate and find out how rising sea temperatures could affect its survival. They can either choose one from the list below or another one that interests them.

- coral
- sea turtle
- fish
- seagrass
- kelp
- penguin
- whale



Investigate the following questions:

- What type of environment does the organism live in?
- What does it eat or what does it need to survive?
- How could warmer water affect it?
- Could it move to a cooler environment? Why or why not?
- What other organisms depend on it?
- What could happen to the food web if its population decreases?
- Is the organism already being affected by changing ocean conditions?

Create a marine organism profile

Students present their research as a poster, infographic, oral presentation, fact file or short video.

Include:

- **The organism:** Name, picture, habitat and interesting facts.
- **Survival:** What it eats, where it lives and what it needs to survive.

- **Ocean warming:** How rising temperatures could affect it.
- **Food web:** Show what the organism eats and what depends on it. Explain what could happen if its population decreases.
- **The future:** Predict what might happen to the organism and suggest ways it could be protected.

Activity: El Niño

Students will learn more about the impact El Niño has on rising sea temperatures. Begin by watching the [BTN Godzilla El Niño](#) story. Using the information in the BTN story and their own research, students respond to the questions below.

- What is El Niño?
- What happens to ocean temperatures during an El Niño event?
- How does El Niño affect weather patterns?
- What effects can El Niño have on Australia?
- How might El Niño affect farmers, plants and animals?
- How can El Niño contribute to drought, heatwaves or bushfire risk in some parts of Australia?
- Does El Niño affect every part of Australia in the same way? Explain.
- How is El Niño different from La Niña?



Become a climate communicator

Students choose one of the formats below to explain El Niño.

- An infographic using [Canva](#)
- An online news article
- A short weather report
- A BTN style rookie report. Check out the [Rookie Reporter page](#) on the BTN website
- An illustrated poster

Their explanation should include:

- What El Niño is.
- What causes it.
- How it affects Australia.
- At least two impacts on people or the environment.
- One labelled diagram.
- Information from at least two reliable sources.

Useful Websites

- [Ocean temperatures hit 'very troubling' record high](#) – ABC News
- [Reef Report](#) – BTN
- [Sea Temperature](#) – Reef Authority