



Teacher Resource

Reef Bleaching

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. What was the main point of the BTN story?
2. What is coral bleaching?
3. Coral gets its colour from...
 - a. Minerals in the water
 - b. Polyps
 - c. Zooxanthellae
4. What do scientists say is causing the mass bleaching event?
5. What can we do to protect the Great Barrier Reef?

Activity: Personal Response

Write a personal response to the BTN Reef Bleaching story by completing the following sentences:

- It was interesting to learn...
- Five words that describe the Great Barrier Reef are...
- The Great Barrier Reef is important to protect because...

Activity: Class Discussion

After watching the BTN story, hold a class discussion using the following discussion starters.

- Where is the Great Barrier Reef? Explore using [Google Earth](#).
- What makes the Great Barrier Reef special?
- What is coral bleaching?
- What can be done to protect the Great Barrier Reef?
- Have you ever visited the Great Barrier Reef? What did you see there? Describe your experience.



EPISODE 7

19th March 2024

KEY LEARNING

Students will develop a deeper understanding of the threats to the Great Barrier Reef.

CURRICULUM

Science – Year 4

Living things depend on each other and the environment to survive.

Living things have life cycles.

Science knowledge helps people to understand the effect of their actions.

Science – Year 5

Living things have structural features and adaptations that help them to survive in their environment.

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 6

The growth and survival of living things are affected by physical conditions of their environment.

Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Reef Bleaching story. Here are some words to get them started.

CORAL	ALGAE	CORAL BLEACHING
POLYP	CLIMATE CHANGE	ZOOXANTHELLAE

Ask students to write what they think is the meaning of each word (including unfamiliar words). They will swap definitions with a partner and ask them to add to or change the definition. Check these against the dictionary definition.

Further activities for students:

- Students will add to their glossary by downloading the transcript for the BTN Reef Bleaching story and highlight all the words that relate to the topic. For example, mass bleaching event, rising sea temperatures, UNESCO, World Heritage Site.

Activity: Coral Reef Research

Students will develop their own question/s to research about coral reefs. Students will collect and record information from a wide variety of sources. Students may develop their own question for inquiry or select one of the questions below.

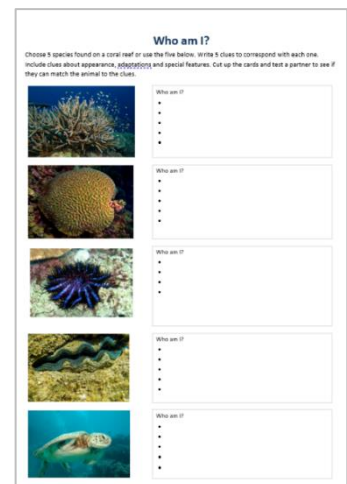
- What are the threats to the Great Barrier Reef?
- What is coral bleaching? What impact is it having on the Great Barrier Reef?
- Explore previous mass bleaching events on the Great Barrier Reef. How much of the Reef was affected? What impact did it have?
- Who do you think should be responsible for looking after the health of the Great Barrier Reef?
- How are coral reefs formed?
- What is a coral spawning event and how often do they happen?
- Coral has a symbiotic relationship with zooxanthellae (algae). What is a symbiotic relationship? What other examples of symbiotic relationships are there on the Great Barrier Reef? Explain the symbiotic relationship including the importance of the relationship to the Great Barrier Reef.
- Why are coral reefs called the 'tropical rainforests of the sea'?
- What might happen if we don't look after coral reefs? What would they look like in 30 years' time? Make some predictions.
- The Great Barrier Reef is a World Heritage site. What types of places around the world are World Heritage sites? How does a site make it on to the World Heritage List? Why did the Great Barrier Reef make it onto the World Heritage List?



Activity: Who am I?

Students will make their own *Who am I?* game to learn more about species that live on coral reefs. The worksheet is at the end of this activity.

- Students will research and write 5 clues to correspond with each species in the Who am I? worksheet at the end of this activity, with the first clue being the hardest and the last clue being the easiest.
- Include clues about the species appearances, adaptations and special features.
- Students will test their game on a partner.



The worksheet is titled "Who am I?". It contains five rows, each with a small image of a coral reef species on the left and a box on the right for writing clues. The instructions at the top read: "Choose 5 species found on a coral reef or use the five below. Write 5 clues to correspond with each one. Include clues about appearance, habitats and special features. Cut up the cards and test a partner to see if they can match the animal to the clues." The species shown are: 1. A branching coral, 2. A brain coral, 3. A purple sea anemone, 4. A green and yellow coral, and 5. A sea turtle.

Activity: Become a citizen scientist

The [Virtual Reef Diver](#) project allows students to become citizen scientists, classifying underwater images of coral. The data collected is then used by researchers to make better decisions about protecting the Great Barrier Reef. Virtual Reef Diver also allows students to explore 360-degree images of the Great Barrier Reef.



Activity: Coral Reef Quiz

1. The Great Barrier Reef is the largest coral reef in the world.
A. True
B. False
2. About how many coral reefs make up the Great Barrier Reef?
A. 30
B. 3,000
C. 300,000
3. What gives coral its colour?
A. Minerals in the water
B. Polyps
C. Zooxanthellae
4. The Great Barrier Reef can be seen from space.
A. True
B. False
5. Coral reefs are made up of thousands of tiny animals called...
A. Polyps
B. Anemones
C. Molluscs
6. Approximately how many species of fish live in the Great Barrier Reef?
A. 500
B. 1500
C. 5000

Answers: 1. A, 2. B, 3. C, 4. A, 5. A, 6. B

Useful Websites

- [Extensive coral bleaching on southern end of Great Barrier Reef after summer of warmer ocean temperatures](#) – ABC News
- [Coral Bleaching](#) – BTN
- [Reef Bleaching](#) – BTN
- [Coral Bleaching](#) – Great Barrier Reef Foundation
- [Great Barrier Reef](#) – Australian Museum
- [UNESCO Great Barrier Reef](#) - BTN

Who am I?

Choose 5 species found on a coral reef or use the five below. Write 5 clues to correspond with each one. Include clues about appearance, adaptations and special features. Cut up the cards and test a partner to see if they can match the animal to the clues.



Who am I?

-
-
-
-
-



Who am I?

-
-
-
-
-



Who am I?

-
-
-
-



Who am I?

-
-
-
-
-



Who am I?

-
-
-
-
-

Images: 1. Staghorn coral 2. Brain coral 3. Crown-of-thorns starfish 4. Giant clam 5. Sea turtle