

Teacher Resource

Coral 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. Elijah is the youngest ambassador for which citizen science program?
- 2. What is coral bleaching?
- 3. Coral gets its colour from...
 - a. Algae
 - b. Polyps
 - c. Minerals in the water
- 4. What happens to coral when the water temperature rises?
- 5. Why is it important to protect the Great Barrier Reef?

Activity: Note taking

Students will practise their note-taking skills while watching the BTN

Coral Bleaching story. After watching the story, ask students to reflect on and organise the information into three categories. What information in the story was...?

- Positive
- Negative or
- Interesting



Activity: Class Discussion

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

- What do you know about coral?
- Why are coral reefs important?
- What are some threats to coral?
- What can be done to protect coral reefs?
- Discuss the importance of the Great Barrier Reef.



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KEY LEARNING

Students will learn more about the structural features of corals and the threats to coral reefs.

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.

Science - Year 7

Interactions between organisms, including the effects of human activities can be represented by food chains and food webs.

Activity: Glossary

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

CORAL	ALGAE	CORAL BLEACHING
POLYP	CLIMATE CHANGE	ECOSYSTEM

Activity: Coral Reef Research

The KWLH organiser provides students with a framework to explore their knowledge on the topic of coral reefs and consider what they would like to know and learn.

What do I <u>k</u> now?	What do I <u>w</u> ant to know?	What have I learnt?	How will I find out?

Questions to 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 some of the main threats to the survival of coral reefs? What are some natural threats to coral reefs? What is the human impact on coral reefs?
- What is coral bleaching? What impact is it having on the Great Barrier Reef?
- 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'?
- 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?
- What might happen if we don't look after coral reefs? What would they look like in 30 years' time?
 Make some predictions.

Activity: Investigating Coral

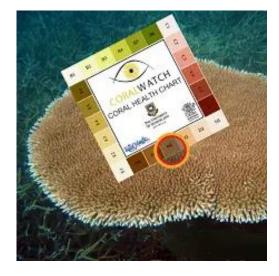
Students will investigate coral and create a fact sheet. The following questions can help guide students' research:

- What do you know about coral?
- What are coral polyps?
- How are coral reefs formed?
- What are the two main types of corals?
- What gives coral its colour?
- What does coral feed on?
- What is a coral spawning event and how often do they happen?
- What are some threats to coral?
- What is coral bleaching?
- Can you think of three reasons why coral reefs are important? Who or what depends on coral reefs?
- Unique facts about coral

These videos will help students understand more about coral.

BTN Coral Spawning story BTN Reef Bleaching story What is coral bleaching? Did you know that coral polyps are closely related to jellyfish?

Activity: Reef Citizen Science



Become a CoralWatch citizen scientist

Find out more

Save reefs from home Find out more



VIRTUALREEF DIVER

The <u>Virtual Reef Diver</u> project allows students to become citizen scientists, classifying underwater images of coral.

Activity: Coral Reef Quiz

1. What type of coral is this?



- A. Soft coral
- B. Hard coral

2. What is this?



- A. Sea cucumber
- B. Sea sponge
- C. Hard coral

3. Can you name this organism?



- A. Sea urchin
- B. Sea anemone
- C. Crown-of-thorns starfish

4. These are Red Sea Fingers. What type of organism is it?



- C. Sea anemone
- B. Soft coral
- A. Seagrass

5. What is this a close up of?



- A. Deep sea worms
- C. The surface of the sea floor
- B. Hard coral

6. What is this a picture of?



- A. Giant clam
- B. Sea sponge
- C. Hard coral

Quiz answers

- 1. B Source of image
- 2. B Source of image
- 3. C Source of image
- 4. B Source of image
- 5. B Source of image
- 6. A Source of image

Useful Websites

- CoralWatch University of Queensland
- <u>Coral Bleaching</u> Great Barrier Reef Foundation
- Corals Great Barrier Reef Marine Park Authority
- Great Barrier Reef Australian Museum
- Great Barrier Reef: New coral bleaching detected in Australia Newsround
- Great Barrier Reef facing another severe bleaching event ahead of UN delegation visit ABC News
- Reef Bleaching BTN
- <u>Coral Bleaching</u> BTN
- <u>UNESCO Great Barrier Reef</u> BTN