

# **Reef Reprieve**

# **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. Summarise the BTN Reef Reprieve story using your own words.
- 2. Where is the Great Barrier Reef? Find on a map.
- 3. The Great Barrier Reef is on UNESCO's World Heritage in Danger list. True or false?
- 4. What are some threats to the Great Barrier Reef?
- 5. How many mass coral bleaching events have there been on the Great Barrier Reef since 2016?

# Activity: Note Taking

Students will practise their note-taking skills while watching the BTN Reef Reprieve 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 Reef Reprieve story, hold a class discussion using the following discussion starters.

- Have you ever visited the Great Barrier Reef? What did you see there? Describe your experience.
- What do you know about the health of the Great Barrier Reef?
- Why is the Great Barrier Reef special?
- Why is the reef important to Australia and the rest of the world?
- What can be done to protect the Great Barrier Reef?
- What do you want to learn about the Great Barrier Reef?

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#### **KEY LEARNING**

Students will learn more about the Great Barrier Reef; the threat to the reef, the animals that live there and what is being done to protect it.

### CURRICULUM

Science – Year 4 Living things depend on each other and the environment to survive.

Living things have life cycles.

### 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.

Scientific understandings, discoveries and inventions are used to solve problems that directly affect peoples' lives.

### Science – Year 7

Classification helps organise the diverse group of organisms

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 Reef Reprieve story. Here are some words to get them started.



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 Reprieve story and highlight all the words that relate to the topic.
- What other words relate to this issue? Students will choose additional keywords and concepts to add to their class glossary that are tricky. For example, biodiversity, crown of thorns starfish, conservation, adaptation, bleaching, consumer, phytoplankton, zooxanthellae, and reef mosaic. Students will find a definition and add to their Great Barrier Reef glossary.
- What is the difference between soft coral and hard coral? Give some examples of each type.

# Activity: Virtual Diving

Students will go on a virtual diving expedition of the Great Barrier Reef using <u>Google Maps</u> and <u>Virtual Reef</u> <u>Diver</u> to explore the reef's marine life and environment. Students will navigate through different sections of the reef to get a closer look at various marine habitats, coral formations, and marine species. During the expedition students will respond to the following:

- Make detailed observations of the marine life you encounter during the virtual expedition.
- Create a journal to record your findings. Draw sketches and make notes based on what you see.
- Include a map of the area. How far does it stretch? What is the area (m2) of the reef?
- What are some of the unique features of the Great Barrier Reef?
- What type of habitats can be found in this region?
- What species live in and rely on the habitats in the Great Barrier Reef?
- Choose one species in the region to investigate in more detail and create a creature feature.
- Create a diorama illustrating one aspect of the of the region.



# Activity: Coral Profile

Students will imagine they are coral ecologists and study one species of coral that can be found in the Great Barrier Reef. Begin the lesson by asking students what they already know about coral and write students' responses on the board.

- What do you know about coral?
- What does coral look like? What are some if its unique characteristics?
- What does coral need to survive?
- Why do you think coral reefs are often referred to as "rainforests of the sea"?
- What do you want to learn about coral?

Students will then create a profile about one type of coral species, see below for some examples:

- Plate coral
- Brain coral
- Cabbage coral
- Finger coral
- Staghorn coral

Students will research the following and then share their research findings with the class or create a display in the classroom.

- Name (common and scientific name)
- Biological illustration or photo
- Scientific classification (class, family, genus)
- Description (size, colour, physical features)
- Is it a soft or hard coral?
- Habitat
- Lifecycle
- Diet
- Adaptations
- Threats
- Conservation status



# Activity: Biological Illustration

Students will create their own biological illustration of a type of coral species. This activity encourages students to develop their observation skills and reinforce their understanding of biological concepts.

Explain to students that in their illustration they need to draw what they see (using photographs/videos they find in books and on the internet). Students will need to think about size, shape, texture, and patterns; and include as much detail as possible.

Teachers may want to show examples of scientific drawings or begin this exercise by asking students to collect a plant specimen (for example, a leaf or flower) from the school yard to practise scientific drawing.

Students can use the following as a guide as they create their scientific drawing:

- Find photographs and/or videos of the species to observe. What key structures will you focus on in your drawings?
- Draw the species to scale (include a ratio on the drawing).
- Include its scientific and common name.
- Add labels to show size, colour and texture.

For more information about scientific drawing in the classroom, visit this website <u>Sketching for observation</u>. Consider sending your students' drawings into your local museum to display as an exhibition.



# Activity: Reef Citizen Science

What is citizen science and what are the benefits? Students will explore one of the following citizen science projects to learn more about the Great Barrier Reef.



Become a CoralWatch citizen scientist <u>Find out more.</u> Save reefs from home <u>Find out more.</u>



### **VIRTUALREEF DIVER**

The <u>Virtual Reef Diver</u> project allows students to become citizen scientists, classifying underwater images of coral. Virtual Reef Diver also allows students to explore 360-degree images of the Great Barrier Reef (through the Google Play store).

# **Useful Websites**

- <u>Great Barrier Reef escapes 'in danger' recommendation ahead of UNESCO World Heritage decision</u>
  ABC News
- <u>UNESCO Great Barrier Reef</u> BTN
- Great Barrier Reef Australian Museum
- <u>Reef Bleaching</u> BTN
- <u>Coral Bleaching</u> BTN