

## Teacher Resource

# Reef Bleaching

### Focus Questions

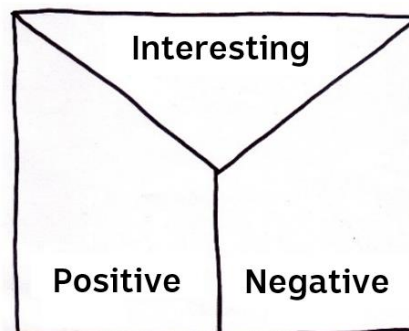
1. Briefly summarise the BTN *Reef Bleaching* story.
2. What is a ghost reef?
3. What are some threats to the survival of coral reefs? Give 2 examples.
4. Where is the Great Barrier Reef? Find using Google Maps.
5. What is coral bleaching?
6. What colour does coral go when it is bleached?
7. Coral gets most of its energy from algae. True or false?
8. What happens to the algae if ocean water heats up too much?
9. What happens if coral stays bleached for too long?
10. Scientists say that over the last hundred years, the average ocean temperature has increased by about:
  - a. 1 degree
  - b. 2 degrees
  - c. 5 degrees

### Activity

#### Note taking

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



Students may want to watch the story again or download a copy of the BTN *Reef Bleaching* transcript to assist them with this activity.

### Activity

#### Class Discussion

Hold a class discussion about the issues raised in the BTN story. Use the following questions to help guide discussion:

- What do you know about coral?
- What words would you use to describe coral?
- Why are coral reefs important?
- What are some threats to coral?
- What can be done to protect coral reefs?

### Key Learning

Students will develop a deeper understanding of the threats to coral reefs.

### Curriculum

#### Science – Year 4

Living things have life cycles.

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

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

### KWLH

Hold a class discussion after watching the BTN *Reef Bleaching* story. What questions were raised in the discussion (what are the gaps in their knowledge)? The following KWLH organiser provides students with a framework to explore their knowledge on this topic and consider what they would like to know and learn.

<b><i>What do I <u>know</u>?</i></b>	<b><i>What do I <u>want</u> to know?</i></b>	<b><i>What have I <u>learnt</u>?</i></b>	<b><i><u>How</u> will I find out?</i></b>

### Research questions for inquiry

Students will determine a focus for their inquiry and develop a key question to guide their inquiry (below are some examples). Students will collect and record information from a wide variety of sources (internet, books, newspaper and magazines). Students will respond to one or more of the following questions/topics.

- What is coral bleaching? What impact is it having on the Great Barrier Reef?
- 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?
- Why are coral reefs important? Think of creative ways to raise awareness about the issues raised in the BTN *Reef Bleaching* story.
- What might happen if we don't look after coral reefs? What would the coral reefs look like in 30 years' time? Make some predictions.

## Activity

### Haiku poetry

Write a haiku poem focusing on one or more of the themes explored in the BTN *Reef Bleaching* story. Use [Read Write Think's Haiku Starter graphic organiser](#) which allows students to brainstorm a list of words about their chosen theme. Students will use the poems they have created to teach other students at their school about coral bleaching.

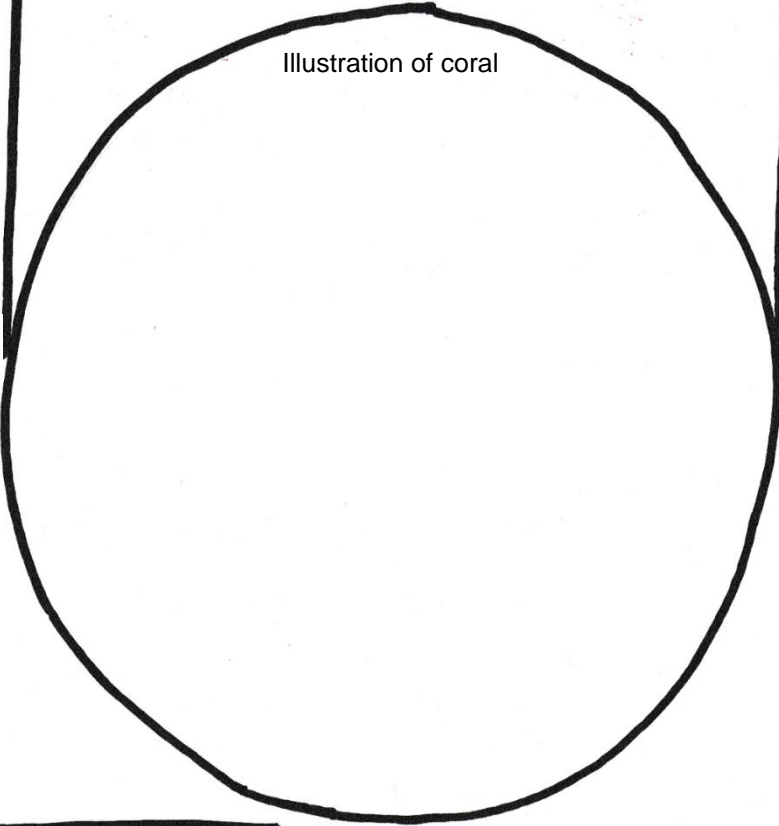
<p>Name: _____ Date: _____</p> <p>.....</p> <p><b>Haiku Starter</b></p> <p>.....</p> <p>Haiku is a form of Japanese poetry. Typically, haikus are written about nature, but they can be about any topic. Haikus have a very specific syllable structure. The first line of every haiku has 5 syllables, the second line has 7 syllables, and the last line has 5 syllables.</p> <p>Use the space below to brainstorm, plan, and write your own haiku.</p> <p><b>Choose Your Topic:</b></p> <p>_____</p> <p><b>Brainstorm Words</b></p> <p>Brainstorm a list of words about your topic. Next to each word, write the number of syllables in the circle.</p> <table><tr><td>_____</td><td>○</td><td>_____</td><td>○</td><td>_____</td><td>○</td></tr><tr><td>_____</td><td>○</td><td>_____</td><td>○</td><td>_____</td><td>○</td></tr><tr><td>_____</td><td>○</td><td>_____</td><td>○</td><td>_____</td><td>○</td></tr><tr><td>_____</td><td>○</td><td>_____</td><td>○</td><td>_____</td><td>○</td></tr><tr><td>_____</td><td>○</td><td>_____</td><td>○</td><td>_____</td><td>○</td></tr></table> <p>(continued)</p>	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	_____	○	<p>.....</p> <p><b>Haiku Starter (Continued)</b></p> <p>.....</p> <p><b>Write Your Draft</b></p> <p>Now that you have brainstormed some words about your topic, you can draft your haiku below. You do not have to use only the words from your brainstormed list, but each line will need to form either 5 or 7 syllables. Be creative!</p> <p><b>Title:</b> _____</p> <p><b>Line 1 (5 syllables)</b></p> <p>_____</p> <p><b>Line 2 (7 syllables)</b></p> <p>_____</p> <p><b>Line 3 (5 syllables)</b></p> <p>_____</p> <p>readwritethink <small>© 2010 ABC/ABC Education</small> <small>ABC Education 2010 ABC/ABC Education</small> <small>ABC Education 2010 ABC/ABC Education</small></p>
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Source: [Read Write Think](#)

# Activity

## Creature feature – Coral

Students will imagine they are an ecologist and study the world of coral. Students will create a creature feature about coral polyps and use the following template to record the information they find.

Appearance – what are some of their physical characteristics?	<b>Creature feature – Coral polyps</b>	
	Common name Scientific name	How do they survive in their environment?
	Interesting facts and features	
Threats – How can they be protected?	What is their conservation status?	
	 <p>Illustration of coral</p>	

## Useful Websites

Coral Spawning – BTN

<https://www.abc.net.au/btn/classroom/coral-spawning/10522092>

Coral Bleaching – BTN

<https://www.abc.net.au/btn/classroom/coral-bleaching/10524996>

Corals – GBRMPA

<http://www.gbrmpa.gov.au/the-reef/corals>

Great Barrier Reef Problems – BTN

<https://www.abc.net.au/btn/classroom/great-barrier-reef-problems/10488602>

Coral Reefs – National Geographic

<https://www.nationalgeographic.com/animals/invertebrates/group/corals/>