

The Great Barrier Reef

In this lesson, you will learn some interesting facts about Australia's Great Barrier Reef. You will also learn about the environmental threat that faces this natural wonder. Is it too late to save the reef?

Pre-Reading

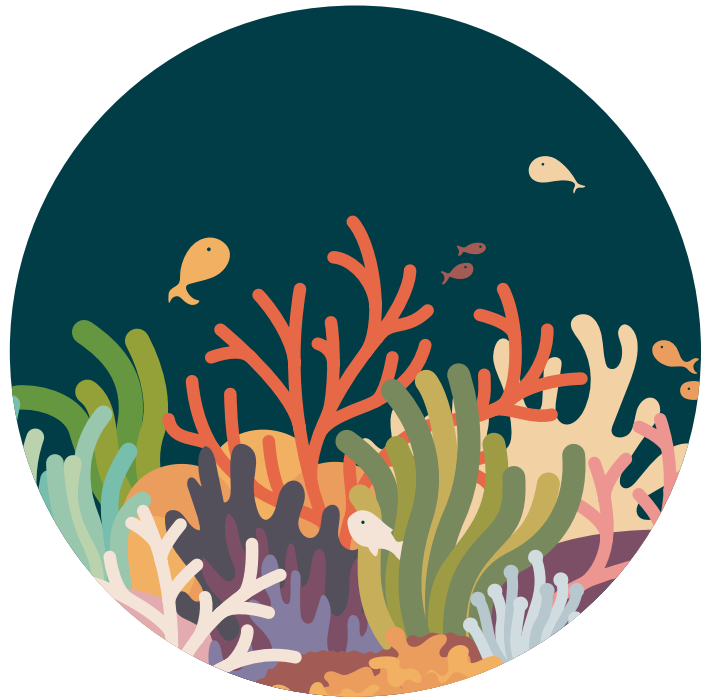
A. Warm-Up Questions

1. Where is the Great Barrier Reef located?
2. What is coral?
3. What words come to mind when you think of the Great Barrier Reef?

B. Vocabulary Preview

Match up as many words and meanings as you can.
Check this exercise again after seeing the words in context on page 2.

- | | |
|-------------------------|---|
| _____ 1. coral reef | a) the act of losing color and turning white |
| _____ 2. polyp | b) threatened in nature |
| _____ 3. take root | c) a place where plants and animals live, eat, and breed |
| _____ 4. tentacle | d) very serious or urgent |
| _____ 5. algae | e) very beautiful or amazing to see or experience |
| _____ 6. breathtaking | f) to become established in one place |
| _____ 7. critical | g) a thing or place that leaves a lasting impression |
| _____ 8. bleaching | h) one immediately following another |
| _____ 9. endangered | i) a small tube-shaped marine animal |
| _____ 10. habitat | j) underwater, stony structure made of coral skeletons |
| _____ 11. back-to-back | k) a long, thin limb, usually on a marine animal |
| _____ 12. wonder (noun) | l) plant-like organisms with no stems or leaves, usually found in water |



Reading

1. The Great Barrier Reef is the largest **coral reef** system in the world. It is a chain of over 2,000 reefs in the Coral Sea off the northeast coast of Australia. The reef is 1,400 miles (2,300 km) long and covers 133,000 square miles (344,400 square km). It is the largest natural structure on earth and the only living thing visible from space.
2. Many people think that coral is a plant. This is a myth. Corals are actually tiny animals called **polyps**. Corals **take root** on surfaces like the ocean floor, which is why we think of them as plants. Unlike plants, corals do not feed themselves. They either sway their **tentacles** to grasp food or they get food from the **algae** living inside them. Corals live in colonies containing thousands of polyps. The Great Barrier Reef has a wide mix of soft and hard corals.
3. Australia's famous reef is one of the most popular tourist attractions in the world. Over two million people visit the reef each year. The colorful views of the reef from above and below the surface of the ocean are **breathtaking**.
4. Aerial surveys show that the Great Barrier Reef is in **critical** condition. Mass **bleaching** in 2016 and 2017 affected two-thirds of its coral. Scientists blame global warming for this disaster. Warmer water temperatures cause colorful coral to release algae and turn white. Bleached coral usually dies off unless water temperatures and quality return to normal.
5. Many species that rely on the Great Barrier Reef for food and shelter are also critically **endangered**. Sharks, rays, marine turtles, and even seabirds are threatened by the declining health of the reef. Approximately 1,500 species of fish rely on the **habitat**.
6. Some environmentalists think it may be too late to save the Great Barrier Reef. The **back-to-back** bleaching between 2016 and 2017 didn't allow any time for the coral to recover. Other experts think there is still hope. We may be able to save the reef if we stick to the Paris Agreement.*
7. In 1981, UNESCO listed the Great Barrier Reef as a World Heritage Site. Will the *rainforests of the sea* be lost forever, or can we work together to save this natural **wonder**?

"There's a long list of threats to the Great Barrier Reef, but by far the biggest one is climate change."

—Professor Terry Hughes,
James Cook University

***The Paris Agreement**

The Paris Agreement went into effect on November 4, 2016. Nations around the world agreed to work together to limit global warming to 1.5 degrees above pre-industrial (18th century) levels.

Comprehension

Are the following statements true or false based on the reading?

Write T if the statement is true. Write F if the statement is false, then correct it in your notebook or out loud with your classmates.

- _____ 1. The Great Barrier Reef is the only thing on earth viewable from space.
- _____ 2. Corals are plants with tentacles that eat algae.
- _____ 3. The Great Barrier Reef is made up of soft and hard corals.
- _____ 4. The Great Barrier Reef is one of the most popular tourist attractions in the world.
- _____ 5. Coral bleaching is caused by extreme winds near the ocean.
- _____ 6. The warmer temperatures of the sea are a result of global warming.
- _____ 7. More than 1,000 species of fish live around the Great Barrier Reef.
- _____ 8. Some experts think the Paris Agreement could save the Great Barrier Reef.

Vocabulary Review

A. Complete the Sentences

Complete the sentences using vocabulary from page 1.

- 1. I hope to see Australia's famous _____ before it's too late.
- 2. Polar bears are _____ due to global warming.
- 3. I have _____ tests in my environmental science class on Tuesday and Wednesday.
- 4. These tiny, tube-shaped creatures are _____.
- 5. Corals use their _____ to grasp food.
- 6. Corals release _____ if the water conditions change.

Vocabulary Review cont.

B. Choose the Correct Word

Choose the word or phrase with the closest meaning to the underlined word or phrase in the following sentences.

1. Their habitat is at risk.
 - a) home
 - b) species
 - c) health
2. Some marine turtles are now endangered.
 - a) extinct
 - b) at risk
 - c) worried
3. Bleaching clothes is bad for the environment.
 - a) Washing
 - b) Whitening
 - c) Cleaning
4. This is a critical situation that needs our attention.
 - a) optional
 - b) serious
 - c) modern
5. I think it will be a while before we take root in this community.
 - a) move to
 - b) live in
 - c) settle into
6. The views from the seaplane were breathtaking.
 - a) amazing
 - b) sickening
 - c) believable

Discussion

1. What words come to mind when you think of the Great Barrier Reef now that you know more about it?
2. Do you think children that are born today will get a chance to see a colorful Great Barrier Reef?
3. Whose responsibility is it to look after the Great Barrier Reef?
4. Should cruise ships be allowed near this natural world wonder? Why or why not?
5. Have you ever gone scuba diving or snorkeling? Where did you dive or snorkel, and what did you see?

Modals of Advice

A. Introduction

Modals of advice are used for giving advice, suggestions, and recommendations.

Modals are always followed by a base verb. A base verb is a verb with **no ending** (-s, -ed, -ing, etc.) added to it.

Examples:

- You **should** study harder.
- He **ought to** apply for a job.
- She **had better** pay me back!

Modals of Advice		
Modal	Strength	Notes
Should	same as <i>ought to</i>	The modal <i>should</i> is the most common modal of advice.
Ought to	same as <i>should</i>	The modal expression <i>ought to</i> is more formal and less common than <i>should</i> .
Had better	stronger than <i>should</i> and <i>ought to</i>	The modal expression <i>had better</i> is common when making a stronger suggestion. It is often shortened to <i>'d better</i> .

B. Practice

Challenge your classmates to give advice to tourists to prevent global warming. Write down the best three examples you hear.

Modal of Advice	Classmate	Advice
should		
ought to		
had better		