

## Episode 4: World Ocean Day: Coral Reefs and Us - Our Island Guardians

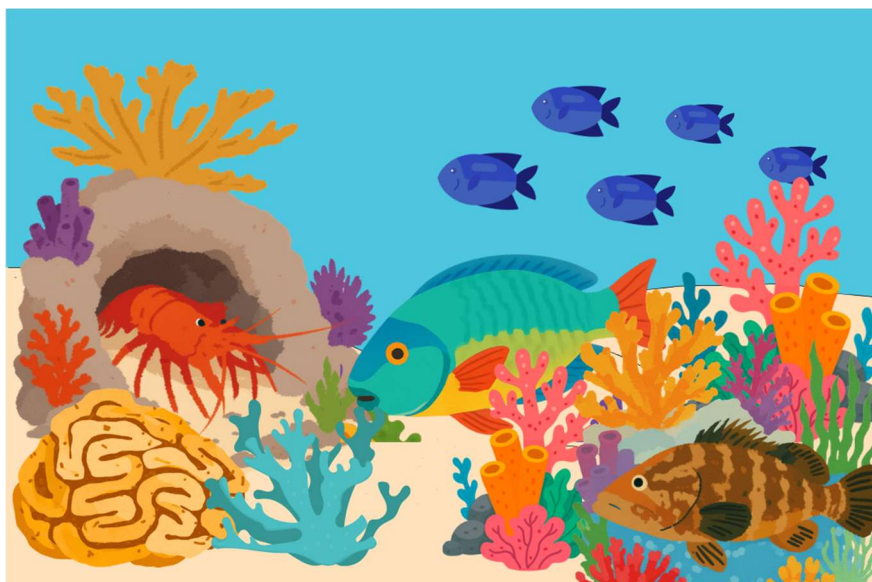
### Key Terms from the broadcast

During today’s broadcast, we explored how coral reefs support people, wildlife, and island communities. Scientists use specific vocabulary to describe what is happening on the reef and how people can help protect it.

Match each keyword with its correct definition.

Key Term	Definition
Biodiversity	A. being active or happening at night rather than during the day
Coral nursery	B. all the different living organisms within a given area
Habitat	C. renewal of a damaged, degraded, or destroyed ecosystem by active human intervention
Nocturnal	D. place where scientists grow corals underwater on specialized structures, with the goal of replenishing depleted coral reefs
Restoration	E. part of the environment occupied by an animal or plant
Marine Protected Area	F. sections of the ocean that are partitioned off from certain human activities for the protection of resources

## Reef Detectives



Look at the reef scene. Circle or label:

- one animal that is hiding **lobster**
- one animal that is feeding **parrotfish**
- one animal that is swimming in a group **blue tang**
- one animal using the reef for shelter **grouper**
- one coral colony **any coral**

Now complete the table below:

What did you spot?	How was it using the reef?
Caribbean spiny lobster	Hiding in a reef crevice for shelter and protection
Stoplight parrotfish	Feeding on algae growing on the reef
Blue tangs	Swimming together in a group near the reef
Juvenile Nassau grouper	Staying close to the coral structure for shelter
Coral colony	Providing habitat and structure for reef animals

**Teacher notes:** Accept any sensible observations from the image or broadcast.



## From tiny fish to people

Coral reefs support fish, and fish can support people. Complete the flow diagram using the word bank below. Not all words will be used!

people | bigger fish | reef shelter | small fish | coral structure

Coral structure creates holes, ledges, and hiding places.



Small fish use the reef for protection.



Small fish become food for bigger fish



Healthy fish populations can support fisheries.



Fisheries can support people

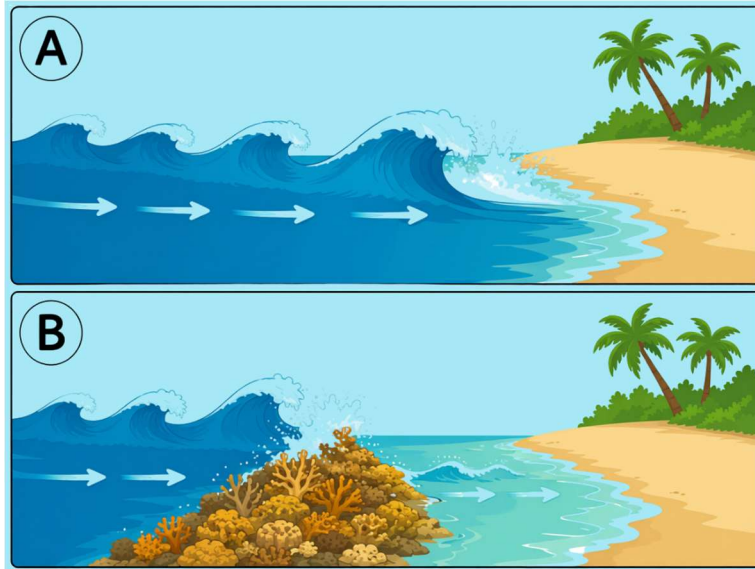
Answer the question below.

1. What might happen if the coral structure became damaged or flattened?

If coral structure is damaged, small fish have fewer places to hide, fewer may survive, bigger fish may have less food, and the reef food web can become less healthy.

## Coral reefs as coastal barriers

In the broadcast, the host used a model to show how reefs can help protect the coast.



Label the diagram using the words below. Not all words will be used!

open ocean | coral reef | shoreline | wave energy | erosion

Complete the sentences below using the words from the word bank above.

When waves travel across the open ocean, they carry energy.

A rough coral reef structure can help slow the waves down.

This means less wave energy reaches the shore.

This can help reduce flooding and erosion.

**Extra explanation: Coral reefs act like natural barriers. Their rough structure helps break up and slow waves before they reach land, helping protect coastlines from erosion and flooding.**



## Day reef vs night reef

Coral reefs are active during the day and at night, but different animals and behaviours may be easier to see at different times.

Sort the behaviours listed below into the correct column.

coral polyps extending tentacles | daytime fish feeding | nocturnal animals  
hunting | fish hiding in coral | animals moving across the reef at night |  
fish swimming in groups

### Day reef

daytime fish feeding

fish hiding in coral

fish swimming in groups

### Night reef

coral polyps extending tentacles

nocturnal animals hunting

animals moving across the reef at night

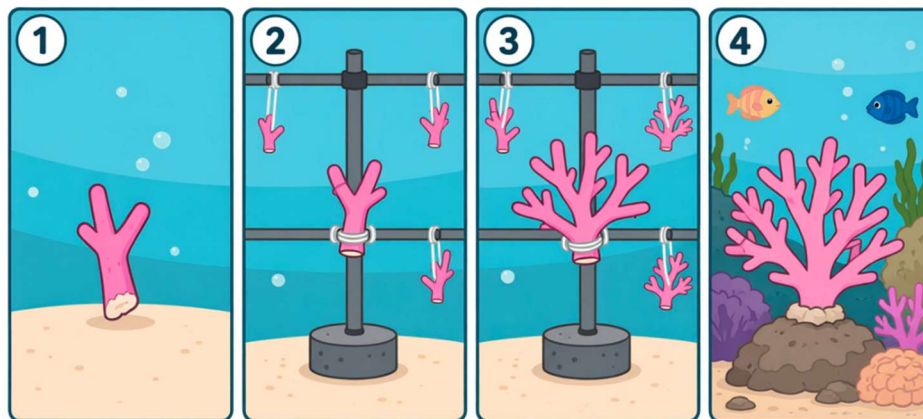
Complete the sentence:

A nocturnal animal is an animal that is being active or happening at night, rather than during the day.

**Teacher note:** Some behaviours can happen during the day or night depending on the species, so accept well-explained answers.

## Coral restoration: helping reefs recover

Scientists at CCMI grow corals in nurseries and later outplant them back onto the reef.



Number the steps of coral restoration from 1 to 4 (1 is the first step; four is the final step).

- 3 Coral is outplanted back onto the reef
- 1 Small coral fragments are grown in a coral nursery
- 4 Scientists monitor coral health and growth
- 2 The coral grows bigger over time

**Now answer:**

Why can coral restoration help damaged reefs recover?

Restoration can increase coral populations, rebuild reef structure, and provide more habitat for marine life.

Why is restoration not a complete solution on its own?

It is not a complete solution because reefs also need protection from threats such as warming seas, disease, pollution, and overfishing



## Be an Island Guardian

Coral reefs need people to help protect them. Some actions help reefs, and some actions harm them.

Tick/check the actions that HELP protect coral reefs. Put an X next to actions that HARM them.

- X Touch or stand on coral
- ✓ Reduce single-use plastic
- ✓ Follow marine park rules
- X Leave rubbish on the beach
- ✓ Choose sustainable seafood
- X Anchor a boat on coral or seagrass
- ✓ Support coral restoration projects
- ✓ Tell someone what you learned about reefs



## World Ocean Day mini poster

Design a small poster called:

### Coral Reefs and Us: Our Island Guardians

Your poster should include:

- one way reefs help marine life
- one way reefs help people
- one way people can help reefs
- at least three key terms from today's broadcast

**Teacher notes:**

This is open-ended. Strong answers should show that reefs are homes, nurseries, natural barriers, night-time ecosystems, and places people rely on and love.