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STANDARDS

- **CCSS:** RST.9-10.1, 2, 4, 5, 6, 8, 10; RST.11-12.1, 2, 4, 6, 8, 10

ONLINE CONTENTS

- *Crown of Thorns Starfish Crisis Video* The crown-of-thorns starfish (COTS for short), named for its bristling helmet of sharp venomous spines. These giant starfish, found in the Pacific and Indian Oceans, have up to 21 arms and can grow as large as a meter in diameter. They are a major coral predator and eat coral by extruding their stomach through their mouth and excrete digestive enzymes that allow them to absorb the dissolved coral tissue externally.
- *Ocean Alert: Overfishing Video* The world's oceans are the biggest source of food for the whole planet. Almost 35% of the world's population gets most of their protein from ocean animals. Although seafood markets around the market appear to be full, they hide a crisis: overfishing. Overfishing occurs when people catch more animals than the ocean can sustain.

CORAL REEF THREATS

This lesson is part of the *Coral Reef Threats* unit, which describes the natural and anthropogenic threats to coral reefs. Below is a summary of what is included in the entire unit. **THIS UNIT IS STILL IN DEVELOPMENT.**

UNIT CONTENTS

A. Lessons

Bleaching

[Read It! Life & Death on the Reef](#)

- A worksheet to accompany the [Life & Death on the Reef](#) field blog

Crown-of-Thorns

[Watch It! Crown-of-Thorns Crisis](#)

- A worksheet to accompany the [Crown-of-Thorns Starfish Crisis](#) video

[Read It! Addressing Acanthaster](#)

- A worksheet to accompany the [Addressing Acanthaster](#) field blog

[Read It! Life, Death, and Rebirth](#)

- A worksheet to accompany the *Life, Death, and Rebirth* ([Part 1](#) and [Part 2](#)) field blogs

Overfishing

[Watch It! Ocean Alert: Overfishing](#)

- A worksheet to accompany the [Ocean Alert: Overfishing](#) video

[Read It! The Man-eaters](#)

- A worksheet to accompany the [The Man-eaters](#) field blog

[Read It! Best Wishes for Reef Fishes](#)

- A worksheet to accompany the [Best Wishes for Reef Fishes](#) field blog

[Read It! Sea Cucumber Craze](#)

- A worksheet to accompany the *Sea Cucumber Craze* ([Part 1](#) and [Part 2](#)) field blogs

Pollution

[Watch It! Pollution Everything is Connected](#)

- A worksheet to accompany the [Pollution Everything is Connected](#) video



WATCH IT!

OCEAN ALERT: OVERFISHING

INSTRUCTIONS: Watch *Ocean Alert: Overfishing* YouTube video (<https://youtu.be/eVJ7Prt5OdA>) and answer the following questions.

1. What is the biggest source of food for the whole planet?

2. What is overfishing?

3. What are two reasons why it is problematic for only small fish to be available in the ocean?

a. _____

b. _____

4. How has overfishing changed what people fish for?

5. What can countries do to help prevent overfishing?

6. How do marine reserves help prevent overfishing? List two examples.

a. _____

b. _____

WATCH IT!

OCEAN ALERT: OVERFISHING

7. List 3 ways that individuals can prevent overfishing.

- a. _____
- b. _____
- c. _____

8. Choose 2 examples from question #7 and explain why these practices prevent overfishing.

- a. _____

- b. _____

9. Why do you think it is important that we do not overfish organisms from the ocean?

10. How can overfishing affect you?

WATCH IT!

OCEAN ALERT: OVERFISHING

VIDEO SCRIPT:

The world's oceans are the biggest source of food for the whole planet.

Almost 35% of the world's population gets most of their protein from ocean animals.

It seems unlikely that this vast resource could ever run out of the creatures we catch to feed ourselves.

But, although seafood markets around the world appear to be full, they hide a crisis –overfishing.

Overfishing occurs when fishermen catch more animals than the oceans can sustain.

And it changes the environment in other ways too.

In Jamaica, fisherman lay down a huge net around the bay.

This traditional method of fishing used to feed a whole village.

But now because of overfishing, there are fewer fish, and those remaining are smaller.

“When I came here about 15 years ago, I used to see fish all around the cay. Big fish, big parrot, big snappers, big groupers.”

But not anymore. And having only small fish in the oceans causes big problems.

Small fish produce fewer eggs. That makes it hard for fish populations to grow.

And small fish are more likely to have small offspring, so fish size cannot increase either.

Overfishing has also changed the kinds of fish fishermen catch.

These aren't the choice fish they used to take to market.

Instead they're the little fish, the big fish used to eat.

All in all, overfishing adds up to one sad fact.

The world's oceans can't sustain the current level of fishing.

But we still need to fish.

“We have to fish, because that's what we live from, fishing. And if there's no fish, then there's no food on the table.”

Fortunately, something can be done about the ocean's downward spiral.

In many places across the world, countries and communities are setting up marine reserves.

In a “no-take reserve,” like this one in Jamaica's Pedro Bank, no fishing is permitted for a number of years.

WATCH IT!

OCEAN ALERT: OVERFISHING

This allows adult fish and other creatures to reproduce in greater numbers.

Small fish grow to adulthood and become big fish.

Bigger fish and other animals “spill over” into the ocean around the reserve, where catching them is permitted.

And that’s good for fishermen!

Marine reserves are big projects that yield impressive results for fisheries.

But there are steps everyone can take to help protect the oceans.

Catch only what you need, but no more.

Follow local fishing rules.

Never catch creatures during their breeding seasons.

Know your seafood. Understand which animals are sustainable and where they came from.

Give creatures a chance to breed. Choose larger ones.

Don’t destroy animal habitats like coral reefs, seagrass beds, and mangroves.

And don’t use destructive fishing gear.

Overfishing has taken a heavy toll on all the animals we catch to eat.

Fish and other ocean populations can recover, and feed future generations.

But only if we take steps now to look after our planet’s greatest shared resource.