



Can We Save Coral Reefs?

Module Summary

This module is an opportunity for CCMI to raise coral reef awareness among the general public, families, and ocean stewards of all ages. Audience members will be given an activity sheet which they can complete throughout the interactive live dive, while they follow-along and ask questions of the host and the underwater educator. Guests will leave this “Reefs Go Live” broadcast with a better understanding of coral reef ecosystems, how humans effect those coral reefs, and what small steps we can all take to Save Coral Reefs.

Target Audience

- Ocean stewards of all ages
- General public
- Families

Learning Objectives

- Explain, what exactly is a coral reef and why are they important.
- Define climate change.
- Summarize the impact of climate change on ocean dynamics, marine chemistry, and the biodiversity of coral reefs.
- Demonstrate examples of negative human impact and our ability to have ZERO impact.
- Define resilience.
- Illustrate the change we humans can make for the future recovery of coral reefs.

Science National Curriculum Alignment (for the Cayman Islands, BWI)

- Observe similarities and differences among animals and among plants (Year 4).
- Find out about other animals, including how they grow, feed, move and use their senses (Year 4).
- Investigate a local habitat, including the relationship between the animals and plants found there, and develop skills in classifying animals and plants by observing external features (Year 4).
- Investigate the conditions necessary for the growth of familiar plants including light, heat and water, *for example, place plants in different environments, varying the light, water and temperature and observe the results* (year 5).
- Understand that some waste materials can be recycled and that this can be of benefit to the environment, *for example, discuss the recycling of bottles, cans and paper* (Year 6).

Description of the live dive

The broadcast dive will take place on a pristine coral reef rich with marine life, off the coast of Little Cayman, Cayman Islands, BWI. The underwater educator will communicate constantly with the broadcast host (who will be topside on the boat) and with the engaged remote audience:



Audience 1, seated in the Camana Bay Movie Theater and Audience 2, across the internet via social media streams. The educator and host will guide these audiences through a series of fun facts and learning objectives regarding the importance of coral reef ecosystems, how we humans are affecting them, and what we can do to minimize these impacts. Audience 1, in the Camana Bay Movie Theater will be given an interactive activity sheet to complete during the live lesson if they should choose to and may ask questions regarding this activity sheet at any time during the dive. However, both audiences are encouraged to ask questions of our underwater educator or host at any time during the duration of the broadcast. Pre-recorded footage and images will be used to show the diversity and complexity of the coral reef, should these processes not be discovered naturally during the broadcast. The dive will include several visual demonstrations of our negative impacts to coral reefs (ex. Plastic bag floating in the ocean) and also include several visual demonstrations of how we can minimize these impacts (ex. Outplanting a coral onto the reef).

Live broadcast outline (35 mins)

00:00 - 05:00	An address from our CCMI President, Dr. Carrie Manfrino
05:00 - 07:00	CCMI host welcomes the audience, gives introductions, and outlines the live broadcast
07:00 - 12:00	CCMI Underwater Educator defines a coral reef is and what makes them such an important ecosystem
12:00 - 17:00	Educator explains climate change and its effects on: ocean dynamics, marine chemistry, and biodiversity
17:00 - 22:00	Educator demonstrates examples of negative human impacts and examples of positive human impacts
22:00 - 27:00	Educator explains resilience and our goals for saving coral reefs
27:00 - 32:00	Educator highlights the importance of World Oceans Day, the International Year of the Reef, and CCMI's goal of ZERO impact
32:00 - 35:00	CCMI host recaps the dive and concludes the lesson

Materials

Internet connection, laptop, projector, speakers, pencils/pens, CCMI activity sheet, and CCMI fun fact sheet.

Useful resources

- www.reefresearch.org/reefs-go-live
- www.projectaware.org
- www.doe.ky
- www.education.gov.ky/education/curriculum
- www.cte.cornell.edu/documents/Assessment%20-%20Blooms%20Taxonomy%20Action%20Verbs.pdf