



How do Scientists Grow Coral?

Module Summary

This module is an opportunity for students to dive into the world of growing corals and CCMI's coral nursery. Students will be given an in-class activity to assist with the understanding of the importance of corals, coral reefs, and coral nurseries. Methods such as cleaning corals, outplanting corals, and monitoring corals will be demonstrated live by an underwater educator. Students will be able to participate in a live lesson by interacting with the underwater educator while performing nursery methods such as: cleaning corals, preparing corals for outplanting, and outplanting a living coral onto the reef.

Year 4, 5

Learning Objectives

- Define the importance of coral nurseries.
- Explain why fragmenting corals is only okay in a nursery setting.
- Summarize the scientific method scientists use to grow coral.
- Report on the difficulties and challenges scientists face with coral nursery work.
- Organize a volunteer effort to assist with a local coral nursery.

Science National Curriculum Alignment

- Find out about other animals, including how they grow, feed, move and use their senses (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).

Description of the live dive

The dive will take place in front of CCMI's coral nursery in the sand between two fingers of pristine coral reef rich with marine life. The underwater educator will communicate constantly with the live lesson host (who will be on the boat) and with the engaged remote class. The educator will take the students through a series of fun facts and learning objectives regarding corals and coral nurseries, in alignment with the Science National Curriculum of the Cayman Islands. Students will have an in-class activity to complete during the live lesson, which they are welcome to ask questions about to our underwater educator at any time during the duration of the broadcast. Pre-recorded footage and images will be used to show examples of outplant site success stories where the diversity of corals and fishes is high due to methods of coral farming, as these sites are too far to reach during the live broadcast. The dive will include a visual demonstration on nursery methods such as cleaning corals in the nursery, removing corals to prepare for outplanting, and physically outplanting a live coral onto the reef.



Live broadcast outline (45 mins)

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| 00:00 - 03:00 | CCMI host welcomes students and outlines the lesson |
| 03:00 - 05:00 | CCMI host introduces the educator and the in-class activity |
| 05:00 - 10:00 | Educator describes history of coral nurseries |
| 10:00 - 15:00 | Educator explores the CCMI coral nursery |
| 15:00 - 20:00 | Questions |
| 20:00 - 25:00 | Educator explains the importance of coral nurseries |
| 25:00 - 35:00 | Educator demonstrates some nursery methods; cleaning, fragmenting, and outplanting |
| 35:00 - 40:00 | Questions |
| 40:00 - 45:00 | CCMI host on the boat recaps the live dive and concludes the lesson |

Materials

Internet connection, laptop, projector, speakers, paper, 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.oceanservice.noaa.gov/kids/