

**Photosynthesis** – The process by which plant leaves, especially those that are green (from chlorophyll), make carbohydrates.

**Polyp** – A coral animal with a tubular shape, hundreds of thousands are known to live in a single reef system.

**Ultraviolet Light** – Of producing, or using electromagnetic radiation with wavelengths shorter than visible light but longer than x-rays.

# Show Me Science

## The Wonders of Oceanography

# The Underwater World of Coral Reefs

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**K4596DVD**  
**Teachers Guide**

**SYNOPSIS:**

Ecosystems are not isolated pockets of life, but part of a vast worldwide chain. The ecosystem of a coral reef is just as important to humans as it is to the sea creatures that live there.

**CURRICULUM UNITS:**

Biology  
Ecology  
Environmental Science  
Geology  
Marine Biology  
Oceanography

**CAREER OPPORTUNITIES:**

Biologist  
Ecologist  
Environmental Scientist  
Geologist  
Marine Biologist  
Oceanographer

**PROGRAM OVERVIEW:**

Take a dive into the underwater world of coral reefs and explore their importance in helping us understand much of the recent history of our oceans. The long life span of coral reefs has made them important places for scientific exploration and today much of that study deals with coral reef survival. Students will learn that the largest reef in the world is the Great Barrier Reef off the coast of Australia.

**ISSUES & CRITICAL THINKING:**

1. After viewing the program, ask your students the following questions.
2. What is a coral reef?
3. Where are coral reefs found?
4. What can coral reefs tell us about the past?
5. What are the secrets hidden inside of coral?
6. Have students research the many species of sea life that make their homes in and around coral reefs.

**GLOSSARY:**

**Algae** – A large group of water plants that don't have roots or flowers.

**Carbon** – A chemical element that is found in coal and charcoal.

**Coral Larvae** – Newly hatched coral young.

**Coral** – A hard, rock-like substance that is made up of the skeletons of tiny sea animals.

**Coral Reef** – An erosion-resistant marine ridge or mound consisting chiefly of compacted coral together with algal material and biochemically deposited magnesium and calcium carbonates.

**Ecosystems** – Ecological communities together with the physical environments.

**Fossil**- The remains or traces of an animal or plant that lived long ago.

**Great Barrier Reef** – The largest coral reef in the world, located 1,250 miles off the eastern coast of Queensland, Australia.