



Teacher's Guide

Symbiosis in Ocean Communities **The Living Oceans**

Grade Levels:

Intermediate
Junior High
High School

Subject Areas:

Biology
Life Sciences
Environmental Education

Synopsis:

Live-action underwater photography captures the lives of predators and prey in the world's oceans. Hunting habits and defenses are explored in tuna, hammerhead sharks, snake eels, lobsters, hermit crabs and several other species. The program also films the mutualism of cleaner fish like angelfish and rainbow runners who even clean the mouths of hammerhead sharks. The aggressive tube blennies and their more benign relatives, the sailfin blennies, are filmed in their apartment-like undersea homes, while a fascinating sequence shows a hermit crab changing his shell for a more appealing one. The program closes with live-action close-ups of manta rays, stingrays, and hammerhead sharks being serviced by cleaner gobies.

Learning Objectives: Students will:

- Provide examples of mutualism in the world's oceans.
- Describe the defense systems of prey in ocean environments.
- Appreciate the complexity of life in ocean environments.

Vocabulary:

bigeye jacks, escarpments, hammerhead sharks, barberfish, venomous, crustaceans, tube blennies, irascible, sailfin blenny, moray eel, cardinal fish, goatfish, barbells, legions, manta rays, schooling (fish), plankton, marbled stingrays, whitetip reef sharks

Pre-Viewing Discussion:

What is meant by the term predator or predation?

Are there predators in the oceans? Can you describe some of them?

Are sharks and manta rays the most dangerous marine animals?

How do small fish survive when there are so many predators in the ocean?

Post-Viewing Discussion:

Why don't hammerhead sharks eat barberfish or angelfish?

How does the frog fish protect itself from predators?

What is mutualism? Where does mutualism occur in marine environments?

How do manta rays capture their food?

Further Activities:

Do further research on the life cycles of any of the species mentioned in this program.

Find out if hammerhead sharks are a danger to human beings.

Find out how manta rays differ from stingrays.

Find out if there are other ocean dwellers that live apartment-style as blennies do.

Related New Dimension Media Titles:

Biological Classification (Series)