

Show Me Science

The Wonders of Oceanography

Spectacular Sharks

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**K4594DVD
Teachers Guide**

SYNOPSIS:

Sharks have inhabited our oceans for more than 400 million years. Their ability to adapt to their environment over time has classified them as one of the world's most successful species. In this program, we dive into the ocean to take a closer look at these magnificent creatures and examine the qualities and characteristics that have enabled them to survive for millions of years.

CURRICULUM UNITS:

Biology
Ecology
General science
Marine biology

CAREER OPPORTUNITIES:

Biologist
Ecologist
Environmental Scientist
General Scientist
Marine Biologist

PROGRAM OVERVIEW:

Deep below the ocean waters lurk creatures of all shapes and sizes. There is one species that is most feared – the shark. Equipped with powerful jaws and dynamic hunting abilities, sharks have been hunting the depths of the sea long before dinosaurs roamed the earth. In this program, we take a closer look at how sharks have evolved and what makes them the most feared underwater species.

ISSUES & CRITICAL THINKING:

1. Have students research how the hammer head shark has evolved over time. Illustrate each major change and write a description for each.
2. Create a shark book. Working with a partner, choose a species of shark to study. Give students a map of the continents and oceans, and research and mark the regions the sharks live in, what they eat, what they look like. For example, does the Great White live in the Pacific or Atlantic Ocean.
3. Illustrate a shark food web. Describe their importance in the ocean's ecosystem.
4. Research conservation efforts including fishing laws in your town/state.

GLOSSARY:

Camouflage – to disguise.

Cartilage – an elastic-like tissue.

Circulatory system – the combined function of the heart, blood and blood vessels to transport oxygen and nutrients to organs and tissues throughout the body and carry away waste products.

Gill pump – muscles of a shark that act as a pump to suck water in and over the gills.

Oxygen – a colorless, odorless, tasteless, gaseous chemical element found in the air that is essential for life.

Placoid scales – small tooth like scales found on a shark.

Predatory – praying upon other animals.

Prey – an animal taken by another for food.