



School Outreach Classroom Programs

PRESENTATIONS

Humpback Whales (5th grade & up/max 50 students) 1 hr.

Journey to the underwater world of the Humpback Whale. Learn about one of the most charismatic animals in the marine mammal world through activities, interactive discussions, and a colorful media presentation. Topics include a history of the humpback, the form and function of this massive mammal, and current methods to conserve one of the most amazing cetaceans to cruise the open ocean.

Coral Reef Ecology (5th grade & up/max 50 students) 1 hr.

Discover the importance and wonder of the world's coral reefs. Students will explore the creation of a reef all the way from larvae to one of the most diverse ocean ecosystems. Students learn what coral is, how it survives in a challenging marine environment, who's life depends upon the reef, and steps they can take to protect today's coral reefs for the ocean of tomorrow.

Marine Debris (5th grade & up/max 50 students) 1 hr.

Marine Debris has become one of the most pervasive pollution problems facing the world's oceans and waterways. Increase students' awareness of different kinds of debris in water environments and the impact it can have on animals, humans, and aquatic habitats through program ideas based on NOAA's (National Oceanic & Atmospheric Administration) Marine Debris 101 curriculum. Students will define marine debris, learn about its' characteristics, identify affects of debris on animals, and discuss ideas to raise community awareness and action.

Ocean Fisheries (9th grade & up/max 50 students) 1 hr.

According to the most recent report on the status of the world's fisheries by the United Nations Food and Agriculture Organization, fisheries supply at least 15% of the animal protein consumed by humans, provide direct and indirect employment for nearly 200 million people worldwide and generate \$US85 billion annually. This same report indicates that 28% of the world's fisheries stocks are currently being overexploited or have collapsed and 52% are fully exploited.

Examine marine resources from anadromous salmon, to migratory tuna, to benthic shrimp and more. Learn about fishing gear and methods, the over-exploitation of fisheries, and how the world is working to effectively conserve, protect and manage this irreplaceable resource.

If you are interested in a presentation for fish or invertebrate biology or would like to request more information about these topics, please contact us.



Ocean Blue Education

Program Outlines:

I. Humpback Whales

II. Coral Reef Ecology

I. Humpback Whales

Duration: 1 hour

A. Introduction to Humpback Whales

1. Different Populations- Where do they live?
2. Migration- Where do they travel and why?
3. *Megaptera Novaengliae*, “Big Winged New Englander”- What’s in a name?

Objective: Students will learn about the background and biology of Humpback Whales.

B. Anatomy: Form and Function

1. Survival In Water- Flukes, flippers, blubber and more!
2. Whale Behavior- Form=Function
3. Feeding- Bubble netting vs. Kick feeding: It’s all krill to me

Objective: Students will learn that the physical forms of cetaceans are related to what they do and where they live.

C. Conservation

1. Scar Story- Flukes, the key to conservation

Objective: Students will learn how Humpback whales acquire the many markings on their bodies and the role these markings play in science and conservation.

Media

Interactive Power Point Presentation

Activities

Magnificent Marine Mammals- Observe what it takes to transform from mammal to marine mammal.

Humpback Says- Learn & reproduce the myriad of behaviors that humpbacks display in their daily lives.

Fluke I.D.- Design a humpback fluke (tail). Share a whale of a story about how the tail came to be, and why it is key in protecting humpback whales.

II. Coral Reef Ecology

Duration: 1 hour

A. Biology of Coral

1. Plant, Animal or Mineral?
2. Food and Nutrition

Objective: Students will learn what makes up a coral colony and create a coral model.

B. The Reef Ecosystem

1. Settling Down- Choose a habitat: Rock, Sand or Mud?
2. Reef Builders- What does coral need to live long and stay healthy?
3. The Reef community- Who needs coral reefs?

Objective: Students will learn the importance of coral reefs in the ocean ecosystem and what they need to survive.

C. Protect the Reef

1. Stress Test- What is impacting coral reefs?
2. Eyes on the Reef- What you can do to help save coral reefs.

Objective: Have students demonstrate negative impacts on a coral reef community, then come up with ways to help conserve our coral reefs.

Media

Interactive Powerpoint presentation

Activities

Coral Creation- Build a coral model. Recipe= 1 part animal, 1 part plant, & 1 part mineral.

Feeding Frenzy- Photosynthesis, zooxanthellae, and tentacles- oh my! Food is key to survival.

Human Reef- Demonstrate the strengths and weaknesses of a coral colony.