

# Fish Identification Program

**Grade Level:** All

**Timing:** Class is one hour, field trip is 3 hours (but can be shortened, if necessary)

**Summary:** The fish identification program is a part of MarineLab's core curriculum. Students will learn the best field marks to use to identify a fish, behavioral characteristics of specific family, and learn how to identify fish species that we commonly see on Key Largo's reefs. The students are then taken out into the water to put what they learned into practice! All boats are equipped with fish identification cards. Level 1(grades 5-8) and Level 2 (grades 9-12) curriculum used accordingly (same concepts, varied classroom teaching methodology).

**\*\* two service learning options available (Both options includes data collection and are best suited for advanced students.)**

**\*\* advanced options utilizing research techniques are available**

## Program Objectives:

- Identify 10 common coral reef fish species in the Florida Keys. **Elementary version focuses more on ID of fish families.**
- Use the proper field marks for fish identification

## Concepts Covered:

- Identification of fish by field marks
- Basic external anatomy of a fish
- Associating behaviors and habitats with body shapes
- Distinguishing shape and behavior of common fish families
- Identifying characteristics and adaptations of specific families and/or species

**Vocabulary:** field mark, caudal fin, dorsal, ventral, operculum, lateral line, anal fin, square/lunate/forked caudal fins, carnivore/omnivore/herbivore, ambush predator, opportunistic feeder, hydrodynamic, territoriality, mimicry, sexual dimorphism

**Procedures:** Students have a one hour long discussion with MarineLab staff which includes methods to ID fish, characteristics and behaviors to look for, and a slideshow with pictures and videos to help students ID fish when in the field. **Elementary students will cover the same core material but a hands on portion is incorporated and fewer fish families and species are covered.**

**Extensions:** we have two service learning options available, parrotfish feeding data collected by students is available via our in house database

**Resources:** [www.reef.org](http://www.reef.org), <http://www.fishid.com/>, <http://www.fishbase.org/search.php>



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# Standards:

## ***Next Generation Sunshine State Standards***

SC.5.L.17.1: Compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.

SC.7.L.17.1: Explain and illustrate the roles of and relationships among producers, consumers, and decomposers in the process of energy transfer in a food web.

SC.912.L.17.8: Recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.

## ***Ocean Literacy Principles***

Principle 5. The ocean supports a great diversity of life and ecosystems.

**d.** Ocean biology provides many unique examples of life cycles, adaptations and important relationships among organisms (symbiosis, predator-prey dynamics, and energy transfer) that do not occur on land.

**e.** The ocean provides a vast living space with diverse and unique ecosystems from the surface through the water column and down to, and below, the seafloor. Most of the living space on Earth is in the ocean.

