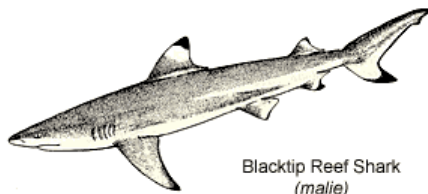


Lesson Plan

Grades 7-8

Fish Identification Skills Scavenger Hunt



Blacktip Reef Shark
(malie)

HCPS
Unity and Diversity
Benchmarks SC.4.5.2 and SC.4.5.3



Created by Maui Digital Bus



Fish Identification Skills Scavenger Hunt

STANDARDS: HCPS

Topic

Unity and Diversity

Benchmark SC.4.5.2

Describe the roles of various organisms in the same environment

Benchmark SC.4.5.3

Describe how different organisms need specific environmental conditions to survive

SUMMARY / OBJECTIVES:

Students will learn about fish based on their behavior and features. Students will be able to identify fish based on specific characteristics.

FOCUS AREA: Fish identification and adaptation

DURATION: 1 - 2 hours

MATERIALS: worksheets, clipboards, pencils, fish id books, paper



BACKGROUND

How to ID fish. What to look for....

When identifying a fish, there are several things that you should be looking for. Below are the terms used in most of the Fish ID books and guides for the different "parts" and markings of a fish. Please note that the pictures below are not of an actual fish. I've just used a generic looking fish for an easier comparison.

Fish Anatomy:

When looking at a fish, it is important to take note of the anatomy of the fish. Notice the Dorsal, Caudal, Ventral, Anal, and Pectoral Fins. Some fish have a stubby Caudal Fin, while others are wider and forked. Are there significant markings on any of these fins? Some fish have a spiky dorsal fin, and some don't. Also, does the fish have a barbel? If so, you can probably narrow it down to the Goatfish family.

When looking at a fish, also try to observe the proportions and general shape of the body.

- **Is the fish long and slender like a Wrasse?**
- **Is it boxy shaped like a Puffer?**
- **Is it shaped like a flat oval disc or plate like a Butterflyfish?**

Butterflyfish?

- **What is the shape of the tail? The head? The mouth?**

BACKGROUND

Another thing to look for is what the fish uses to swim. A Parrotfish or Wrasse uses it's Pectoral Fins to swim, while a Triggerfish uses it's Dorsal and Anal fins to swim, and of course many fish use their Caudal (Tail) fin to get around.

Fish Markings:

Although color can often play an important role in identifying a fish, it is most often the markings on the fish that help you find the identity. If you rely on colors alone, you'll often be back on the beach, scratching your head wondering what that fish was.

Take a look and try get used to the markings below. The names used for these markings are the most used in Fish ID books. When observing a fish, are those lines on it horizontal? Vertical? Angled? And what about that spot? Is it a single spot? Does it have a ring around it? Is there more than one?

And Where are these spots? Where are the lines? These are some things that you should be thinking of as you try to remember what a fish looked like. The more you get used to looking for these things, the easier it will be to spot them out in a book.

ACTIVITY

Students will complete worksheets including background and review information. They will then be given clues of fish characteristics, and must find the fish somewhere in the ocean center. Once they find the fish, they must sketch it and write a brief description of each fish.

ASSESSMENT: Completed worksheets with anatomical labels, descriptions and sketches of fish found in the Ocean Center, based on their behavior and features.

EXTENSIONS: Find the Hawaiian name of each fish. Find out which family each fish belongs to.

REFERENCES:

Hoover, John P., 2003, *Hawaii's Fishes*, Mutual Publishing, Hawaii.

Mahaney, Casey, 1993, *Hawaiian Reef Fish, An Identification Book*, Blue Kirio, Nevada.

Pitkin, Linda, 2001, *Coral Fish*, Natural History Museum, London.
Marine Fishes of Hawaii

www.coralreefnetwork.com/marlife/fishes/fishes.htm

Coral Reef Ecology

www.uvi.edu/coral.reefer

Coral Realm

<http://www.coralrealm.com/mapzone.asp?speciestype=Fish&maptype=fishzones&zone=2>

Hawaiian Reef Fish ID Chart

<http://adigitaldreamer.com/snorkel/fishchart.htm>

Snorkel Maui: How to ID a Fish

<http://adigitaldreamer.com/snorkel/fishid.htm#fish3>

**Worksheets are located in file
Fish ID Scavenger Hunt 7-8.pdf**