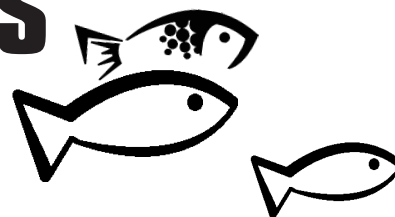


# SC Reel Kids

## ACTIVITY SHEET



## Fish Lips A Study of Fish Adaptations

### Objectives:

- Examine various methods of feeding in fish
- Understand that certain body parts are suited for survival in specific feeding areas
- Introduce adaptation and survival of the fittest

### Background:

Adaptations occur over time in response to the environment. Aquatic animals are the product of countless adaptations over long periods of time. These adaptations, for the most part, are features that increase the animals' likelihood of surviving in their habitat. Populations change as those individuals better adapted survive longer and produce more offspring.

Fish must have highly adapted bodies and behavior in order to survive. All fish have mouths or "lips" specifically adapted for how and what they eat. The Great White Shark grabs and gulps its prey so their "lips" are large and best adapted to snap at and bite through their prey. Some fish, like the parrotfish scrape algae off of rocks and graze, so their mouths are adapted to scrape and scoop food. Other fish, like seahorses, have very small mouths and suck their food in as if through a straw. Basking sharks do not have teeth; instead they filter their food from the water using specialized structures in their gills to trap plankton. This lesson examines these four mouth types (grabbing or gulping, sucking, scraping, filtering).

The physical features of fish "lips" determine what kind of food they can eat. Because fish have different adaptations they are able to feed on different kinds of food. This allows many fish to survive in one habitat without competing for food.

### Materials: (for eight groups of four)

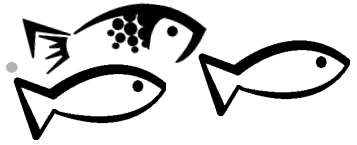
- 48 small plastic cups
- 8 plastic pipets
- 16 plastic spoons
- 8 clothespins
- 1 packet of small seeds
- 16 small plastic tubs
- 1 packet of beans
- 8 small square mesh screens
- sand
- masking tape
- dish soap

(this kit can also be ordered from Carolina Biological Supply Company, catalog number WW-95-4234)



DNR





**Directions:**

1. Mix about 1/2 cup small seeds with about 1/2 cup of sand in each of the 8 small tubs. This will make it easier for the students to filter with the screen.
2. In each of 8 plastic cups, add a small amount of sand and one drop of dish soap, and then fill cups with water.
3. Divide the beans in the remaining 8 small tubs.
4. In each of 8 plastic cups, add a small amount of seeds and one drop of dish soap, and then fill cups with water.
5. Tape the spoons together so that the bowls of the spoons are facing one another, forming a pincer-like setup. (see diagram below)
6. Allow each group of students to try out the four different mouth types (pipet, screen, taped spoons, clothespins) on the different food sources (sand/seeds, sand/water, beans, seeds/water).
7. Use the remaining cups (36) as “stomach cups” and have the groups use the different types of “mouths” to “eat”.

**Activities and discussion questions:**

- Allow students to vote on which “lip” corresponds with which feeding method
- Show students examples of fish and ask them to identify the feeding method
- Why is it important for a fish’s mouth type to be well suited to an available food type?
- What would happen to a fish whose mouth is not adapted to eating the food in its habitat?
- What does living longer have to do with a species adapting over time?

