

FASHION A FISH, PENNSYLVANIA-STYLE

-Aquatic Guide-© 1987, 1992, 2000, 2001 Council for Environmental Education. Adapted with permission from Project WILD, Project WILD Aquatic Education Activity Guide. The complete Activity Guide can be obtained by attending a KARE Workshop. For more information, contact the Pennsylvania Fish and Boat Commission at 71705-7833, or visit us on the web at www.fish.state.pa.us.

Objectives	<p>For younger students: Students will be able to classify fish according to body shape and coloration.</p> <p>For older students: Students will be able to: (1) describe adaptations of fish to their environments, (2) describe how adaptations can help fish survive in their habitat, and (3) interpret the importance of adaptations in animals.</p>
Background	<p>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.</p> <p>When a habitat changes, either slowly or catastrophically, the species of animals with adaptations that allow them many options are the ones most likely to survive. Some species have adapted to such a narrow range of habitat conditions that they are extremely vulnerable to change. They are over-specialized and are usually more susceptible than other animals to death or extinction.</p> <p>In this activity, the student design a kind of fish. They choose the adaptations that their fish will have. Each choice they make would actually take countless years to develop. As these adaptations become part of the fish's design, the fish becomes better suited to the habitat in which it lives. Because of the variety of conditions within each habitat, many different fish can live together and flourish. Some adaptations of fish are shown in the table that follows.</p> <p>The major purpose of this activity is for students to investigate the concept of adaptation in fish.</p>
Materials	<p>Five cards for each adaptation from the masters provided: mouth, body shape, coloration, reproduction (only the body shape and coloration cards are needed for younger children); large drawing paper for each group of three to four students; markers</p>
Procedure	<ol style="list-style-type: none">1. Assign students to draw a picture of a kind of animal that has a special adaptation--for example, long necks on giraffes for reaching high tree leaves to eat.2. Conduct a class discussion on the different drawings made and the value of different kinds of adaptations to animals. Ask students to identify different kinds of adaptations in humans.3. Divide the class into groups of three to four students each.4. Give each group one of the adaptation cards from each of the four categories: one for coloration, mouth, body shape and reproduction. Also give each group a copy of the "Adaptations and How They Help" hand-out.

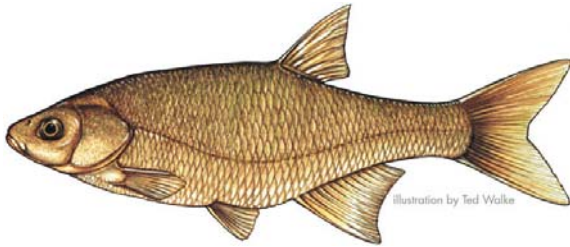
5. Ask the students to "fashion a fish" from the characteristics of the cards in the set they receive. Each group should:

- Create a fish that includes all four characteristics on their cards,
- Name the fish, and
- Draw in and describe the habitat to which their particular fish is adapted.

6. When all groups have finished, have one person from each group stand and tell the rest of the class about his/her group's fish, and how it is adapted for survival.

Coloration--Light-colored belly

GOLDEN SHINER



Reproduction--Eggs deposited in bottom nests

REDBREAST SUNFISH



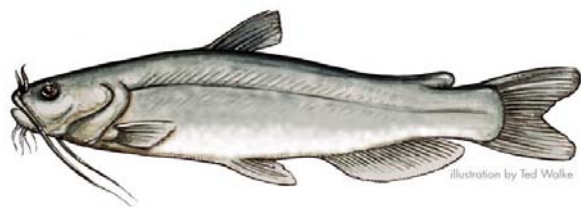
Coloration--Dark upper side

BLUEGILL SUNFISH



Reproduction--Eggs deposited in burrow nests

WHITE CATFISH



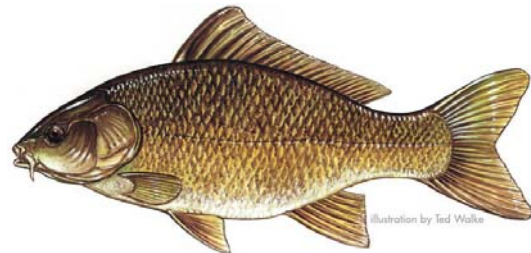
Coloration--Mottled

BROWN TROUT



Reproduction--Eggs deposited on plants

COMMON CARP



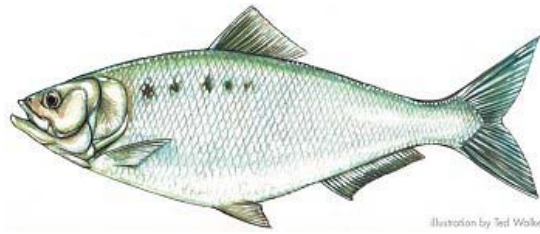
Coloration--Vertical stripes

YELLOW PERCH



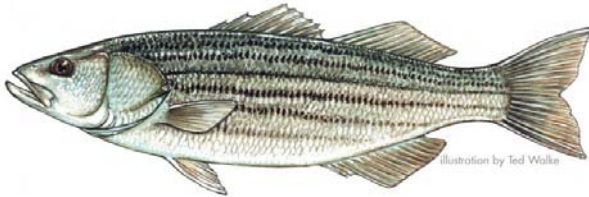
Reproduction--Free floating eggs

AMERICAN SHAD



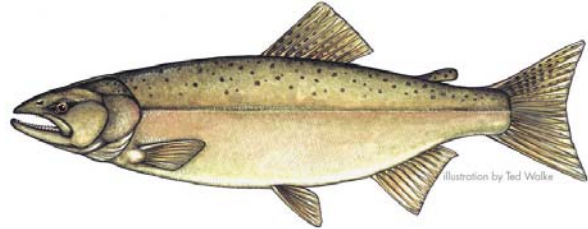
Coloration--Horizontal stripes

STRIPED BASS



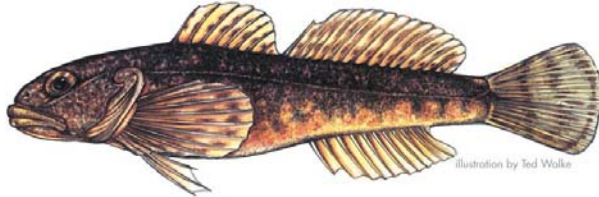
Reproduction--Eggs deposited on the bottom

COHO SALMON



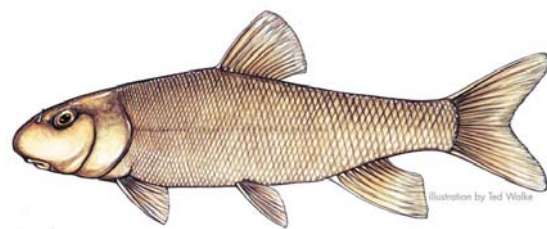
Body Shape--Flat-bellied

SLIMY SCULPIN



Mouth/Feeding--Sucker-shaped

WHITE SUCKER



Body Shape--Torpedo-shaped

NORTHERN PIKE



Mouth/Feeding--Extremely large

LARGEMOUTH BASS



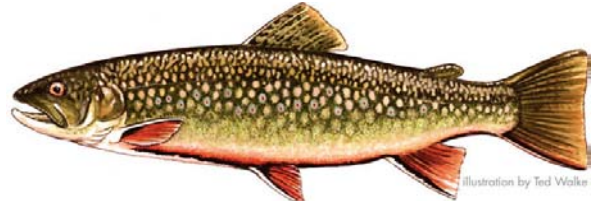
Body Shape--Vertical disk

PUMPKINSEED SUNFISH



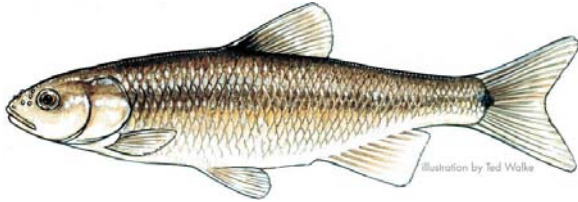
Mouth/Feeding--Elongated lower jaw

BROOK TROUT



Body Shape--Humped back

CREEK CHUB



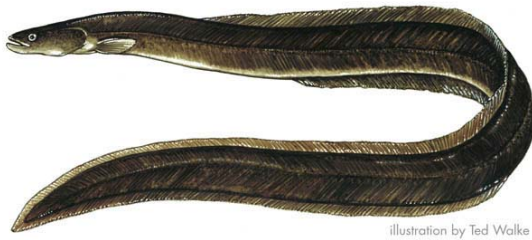
Mouth/Feeding--Elongated upper jaw

SHORTNOSE STURGEON



Body Shape--Snake-like

AMERICAN EEL



Mouth/Feeding--Duckbill jaw

TIGER MUSKELLUNGE

