

Standards and Correlations

Head Start Domains

1A3, 1A4, 1B1, 1B3, 1B5, 3A2, 3C4, 4B2, 4B4, 5B1, 5B2, 5D2, 6B3, 6E2, 7B1, 7C1

NAEYC Accreditation

Criteria

2.A.07, 2.A.08, 2.A.10, 2.A.11, 2.A.12, 2.B.03, 2.B.04, 2.B.05, 2.B.06, 2.B.07, 2.C.03, 2.C.04, 2.D.03, 2.D.04, 2.D.05, 2.D.06, 2.D.07, 2.E.04, 2.E.06, 2.F.03, 2.F.05, 2.F.09, 2.G.02, 2.G.03, 2.J.01, 2.J.04, 2.K.01, 2.K.02, 2.L.01, 2.L.02, 2.L.08, 2.L.09

Resources

Non-Fiction

Fishing In A Brook: Angling Activities for Kids by Lawson Drinkard

Salmon Stream by Carol Reed Jones

Fiction

Big Al by Andrew Clements

Bur Bur's Fishing Adventure: Learn Fun Things About Fishing and What to Bring! by Joanne Pastel, Kacie Fitzsimmons and Bill Dunlap

Fish Eyes: A Book You Can Count On by Lois Ehlert

Fish is Fish by Leo Lionni

Granddad's Fishing Buddy by Mary Quigley

The Little Fish That Got Away by Bernadine Cook

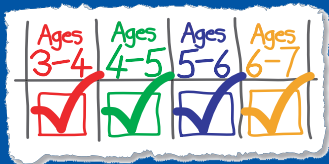
McElligot's Pool by Dr. Seuss

Swimmy by Leo Lionni

Wishing I Was Fishing by Eva Wells

Websites

www.wetpetz.com/fishanatomy.htm (good website for background information)



Fishing Fun!

Children engage in a dramatic play fishing game and learn about fish.

Quick Facts

Fish are water-dwelling animals that live in oceans, rivers, lakes, streams, and ponds. They have gills for breathing oxygen in water. Most are covered with protective scales and swim by wriggling their bodies back and forth. Fish use their fins to steer.

There are about 20,000 species, or kinds, of fish exhibiting a wide variety of body shapes and lifestyles. Different species of fish live in different habitats and have different needs for water, food, and shelter. For instance, some fish live in the open ocean, some in tropical coral reefs, and others in cold mountain lakes. Some eat plants, some eat bugs or smaller fish, and others eat decaying matter. For shelter, some swim in schools to confuse predators (animals that may catch and eat them), and some hide among rocks, plants, or logs.

To catch a fish, a person needs to know where the fish lives, what it likes to eat, and when it is most active. One also needs to be aware that fish have excellent vision, can hear and detect vibrations, and can smell and taste food. Depending on the situation, people may use hands, spears, poles, nets, or highly sophisticated tracking devices for catching fish. People who use the familiar fishing line (string) and hooks to catch fish are called anglers. Fishing gear is called tackle.

Most anglers attract fish with some kind of bait. They might use the actual food of a particular fish (such as a worm or insect), or something that looks like food (such as a spinner, plastic worm, or feather fly). Anglers usually attach the bait to a sharp hook connected to a fishing line. The line is supported by a pole. Additional line is wound up on a reel attached to the pole. Anglers use the rod and reel to cast the bait and hook far out into the water.

It is important that people who fish follow all fishing rules and regulations. These rules help conserve fish populations and also help anglers be successful. Regulations may limit the size of, number of, and season that a type of fish may be caught, and may require a license to fish. In some cases, only "catch and release" fishing is allowed, which means the fish must be let go. Some bait is illegal in certain areas. Contact your state wildlife agency or visit www.takemefishing.org for details about regulations.



Wild Wonderful Words

bait tackle cast line habitat
school predator angler

Materials and Prep

- ☛ Fishing Fun figures, page 79
- ☛ sticks and string or yarn
- ☛ paper clips, packing tape and strong magnets
- ☛ building blocks, boxes, mats, fishing vests, fishing hats, rulers, and other materials for dramatic play (optional)
- ☛ materials for Centers & Extensions activities (optional)

Preparation: You may provide sticks or have children bring them from home or search for them in the school yard. Follow **Directions** on page 79 to prepare **Fishing Fun** figures and poles. If you like, set up one or more Centers & Extensions activities for free exploration.

Warm Up

Ask children whether any of them have gone fishing before. If so, where did they go and what did they do? Did they catch any fish? Did they keep and eat the fish or let it go? If not, do they have family members that go fishing? What gear (tackle) do people use for fishing?

Pantomime going fishing using invisible "props," and invite children to come along. Dig in the ground with a "shovel." Excitedly find a "worm" and place it in a "container." Pick up a "fishing pole," put it over your shoulder, and walk in place. Find a "rock" and sit on it, take out your "worm" and put it on the "hook." Cast out your "line" and wait. Feel a strong tug on the line. Eagerly reel in your line and pull out a big "fish." (Sometimes only "catch and release" fishing is allowed, so you might also pantomime letting the fish go.)

Procedure

1. Begin by asking children how they would describe what a fish is to someone who doesn't know. Where do fish live? How do they move? What kinds of things do they eat? How do they protect themselves? Write their ideas on the board or on chart paper. Ask them how thinking about these things might help someone catch a fish.
2. Build a fishing dock out of blocks, and add mat or box "boats." Allow children time to experiment with fishing using the **Fishing Fun** figures and poles (see Preparation), fishing hats, life jackets (if available), rulers, and other materials.



Also allow children to explore the centers you have set up.

As children are exploring the Fishing Fun figures, ask how they might make sure there are enough fish for everyone to catch some. If appropriate, you might suggest the Mighty Math "Measure Your Catch" activity.

Wrap Up

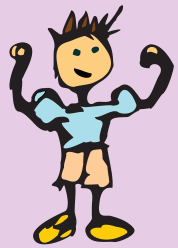
- ☛ **Name something you discovered about fish or about fishing.**
- ☛ **Looking at how we described fish (in Step 1), is there anything you would add or change?**
- ☛ **How was our fishing game like actually going fishing? How was it different?**



Take Me Outside!

Fish Tag

Lots of predators besides people eat fish: larger fish, seals, bears, and pelicans are just a few. Many fish hide from predators under docks or rocks, among cattails, or other places. Let's play a game where a predator (one child) tries to catch fish (the other children) by tagging them. The predator can choose what kind of animal to be. Fish are "safe" if they stand on or touch a safe spot, like a lily pad (hula hoop), cattail (safety cone), rock (cardboard box), or dock (carpet square). To keep things moving, fish can stay in the safe spot only as long as it takes them to count to five. After the predator catches a fish, play again with a new predator.



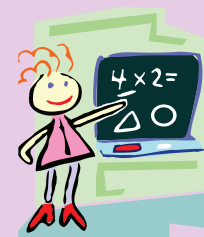
Healthy Me!

Every Breath You Take: People, fish, and other animals all need oxygen to live. Fish have gills that help them “breathe” oxygen underwater. First, they use their mouths to take in water and move it across their gills. Then, the gills take oxygen from the water. What parts of your body help you breathe? Take a big breath, in and out. How does it feel when air comes into your body? How does it feel when air leaves your body? Our bodies use noses, mouths, airways, and lungs to breathe air and take in oxygen!



Helping Hands

Clean Up!: Did you know that trash could hurt fish? Pieces of paper, gum wrappers, plastic bags, fishing line, and Styrofoam cups can wash into a pond, stream, or lake when it rains. There, trash not only makes the water dirty, but can choke fish and kill them. Help keep water clean for fish. Pick up litter around your play yard, home, or favorite fishing spot and set a good example for others. Be safe. Have an adult pick up sharp objects.



Mighty Math

Measure your Catch: (Post a sign showing fish at the size at which they are legally large enough to keep.) Go fishing again. This time compare or measure each fish to see if it is legal. If it is, you may decide to keep it. If it is not, you must release it back into the fishing hole. How do size limits help both fish and people who want to catch them?

Fish School: For protection, many fish swim together in a group called a school. Take the top card from a stack of number flash cards. Count out that number of small plastic fish to make a school. How big is your school?



Art Projects

Gyotaku—Japanese Fish Printing

Use a real head, fins, scales and tail-on fish from the grocery store (or a rubber fish replica) to make gyotaku prints, an ancient Japanese art form. Before children begin printing, give them time to explore the fish. Encourage them to, but don't require, that they touch the fish. What does its body look like? Feel like? How many fins are there? Where are the gills? (See page 79 for a fish diagram designed to help you answer children's questions about the fish.)

To begin gyotaku, encourage a child to paint the surface of the fish with a light coat of tempera paint. Help the child lay a piece of paper on the fish and pat it over the fish. Lift paper to reveal the print.

Tips and Safety Notes: *If using a real fish, place it on a surface that can be sanitized. Consider having children wear disposable non-latex gloves. Make sure that they wash hands well after the activity. As the fish will be at room temperature for a time, it should not be used for human food. To save the fish for more printing later, rinse off the paint, double-bag it in zippered bags, and freeze it. To reuse fish, thaw it overnight, wipe it off, make the prints, and then refreeze it. When you are done with the fish, you can cut it up and bury it in your garden as fertilizer.*



Fishing Permits

In most states, people over age 16 need a permit to fish. Invite older children to create their own fishing permits using index cards, crayons, a washable stamp pad (for fingerprints), a photo of each child (optional), and other materials they choose. If possible, provide a real fishing permit for children to explore. What information would they like to include on their permit? Support their efforts at writing as requested.



Music & Movement

Fishy Swimming School

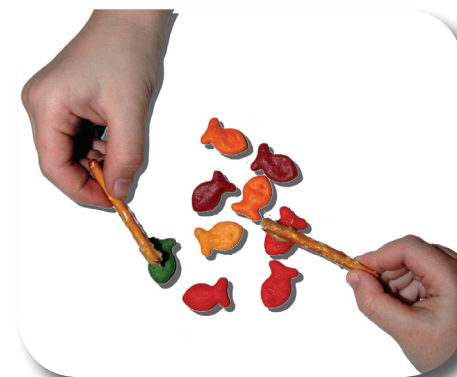
Fish use their bodies to swim through the water. They can turn their fins and twist their bodies to help them move up, down, left and right. Encourage children to try moving their bodies like fish. When fish swim together in a group, the group has a special name. A group of fish is called a “school.” The fish move together to stay in the group, without bumping into each other for protection from predators. We can try swimming as a school of fish too. Be aware of your fish friends while we swim together. All together now!

Practice Casting

In an open area outside, set out hula hoops or empty kiddie pools to be “ponds” or “lakes.” Give children fishing poles with reels and weighted plastic plugs and help them practice casting, aiming toward the targets.

Goin' on a Fishin' Trip

Do this call-and-response variation to “Goin' on a Bear Hunt” with your group (see page 80).



Snack

Fish Tasting: Offer crackers with different foods made from fish, such as grilled fish fillet, fish jerky, smoked salmon (or lox), tuna salad, sardines, and so on. Watch for seafood allergies.

Pretzel Poles: Use pretzel sticks for fishing poles and bean spread or cream cheese for bait. Have children “fish” for fish-shaped crackers.

Centers & Extensions

Animal Science

Set up a fish bowl or tank in your classroom so children can watch how fish move, eat, and breathe.

Cause and Effect

Anglers use bobbers and sinkers to position bait in the water. Explore the concept of sink/float with different sizes and types of fishing bobbers and sinkers in a pan of water.

Bait and Lures

Tie artificial bait and lures to lengths of fishing line and let children pull them through a pan of water to see how they move. Try flies, rubber worms, and spinners (without hooks). Why might fish be attracted to these?

Language Development

On the board, draw a picture of waves along the top and a fishing line, with hook and worm down the center. Using fish from the activity, have children take turns positioning the fish according to a direction such as “Place the fish to the left of the hook.” Vary the directions, substituting to the right of, under, above, far from, near, and so on.

Special Visitor

Invite a parent or guest (a wildlife agency officer, avid angler, bait shop owner, etc.) to share what he or she knows and loves about fishing.

Fish Puzzle

Place **Fish Puzzles** (see page 80) at a center. Invite children to put the puzzles together. They may choose to glue the pieces to construction paper and draw in habitat components (food and shelter).

Home Connections

Go Fishing!: Use what you've learned about fish and fishing to help plan a family fishing adventure.

Places to See Fish: Visit a local fish hatchery, city aquarium, pet store or seafood market. How many different kinds of fish can you see?

Eat Up!: Enjoy fish for dinner!

See page 100 for a take-home Home Connections card.

Fishing Fun!

Note: Use this information sheet to assist you in answering questions that may come up during children's exploration of the fish used for gyotaku. This sheet is not intended for student use.

Fish Information Sheet

Fish vary greatly in size and color. There are tiny fish, giant fish, flat fish, skinny fish, flying fish, electric fish and fish that live in schools. Fish represent more than half of all vertebrate animals. All fish are adapted to live in water. Fish can be found in most bodies of water—both salty, like oceans and bays, and fresh, like lakes, streams and rivers.

Eyes

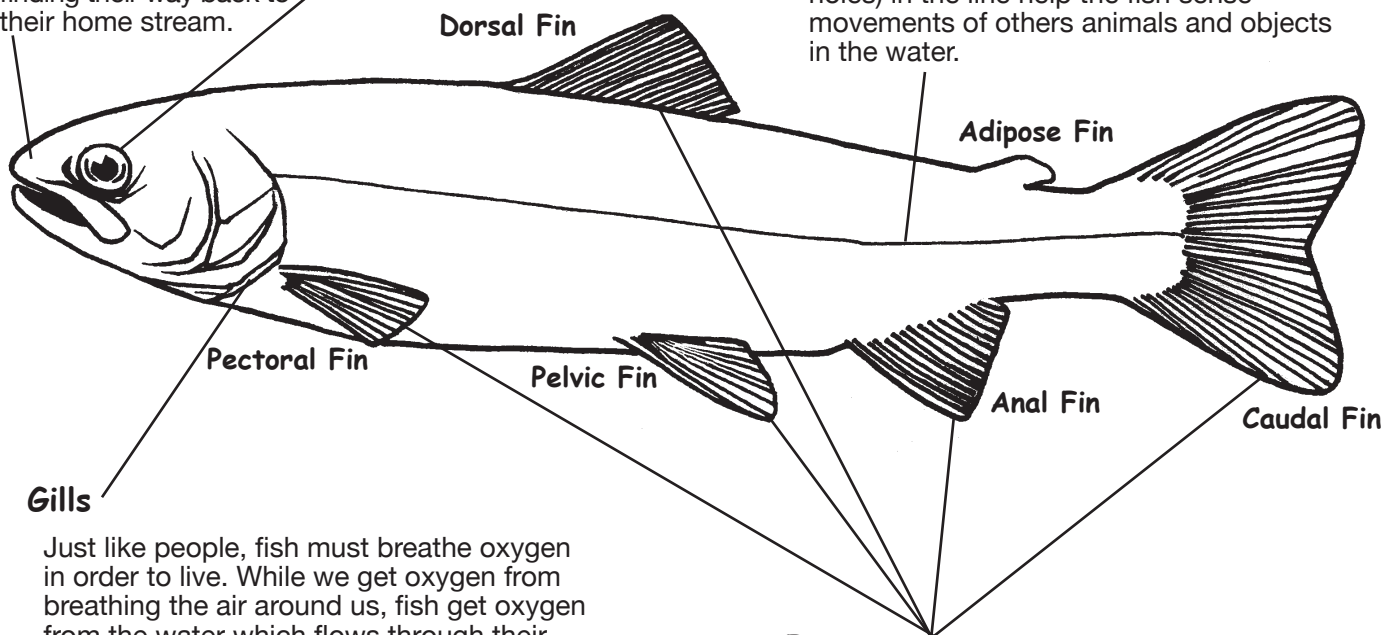
Fish have eyes that they can move independently, enabling them to see in multiple directions at the same time. Eyelids and tear glands are not needed. Water keeps the eyes wet and clean.

Nostrils

A fish uses its nostrils for smelling, but not for breathing. A sense of smell is used to find food. Some fish (like salmon) use smell for finding their way back to their home stream.

Lateral Line

Most fish have a line running along each side of their body. The little pores (small holes) in the line help the fish sense movements of other animals and objects in the water.



Gills

Just like people, fish must breathe oxygen in order to live. While we get oxygen from breathing the air around us, fish get oxygen from the water which flows through their mouths and over their gills.

Gills are found under a flap (operculum) just behind the head. They have many folds of skin and special tissue which absorb oxygen from the water.

Scales

The bodies of most fish are covered with thin overlapping scales.

Fins

Fins help a fish swim. The dorsal and anal fins help keep the fish balanced so its body won't tip from side to side. Pectoral and pelvic fins are found on each side of the body, similar to the arms and legs in other animals. These fins are used for turning, backing up and stopping, as well as for balancing. The caudal or tail fin sweeps from side to side and pushes the fish forward. The adipose fin, if present, is small and fleshy and has no special use.

Shape

A streamlined body helps a fish move through water more easily.

Fishing Fun!

Note: Show children how to “bait hooks.” Place the paper clip on the hook end of a bait figure onto the paper clip “hook” at the end of a string. When the paper clip on the bait touches the magnet on a fish’s mouth, the fish will get caught.

Directions: Copy the figures below onto card stock and cut out. Consider reducing and enlarging some copies to create fish of different sizes for Mighty Math. Color the figures (if desired) and laminate. Attach strong magnets to the mouth of each fish figure. Packing tape works well. Attach two paper clips to each bait figure, one on the hook side and one on the side opposite. Make fishing rods by tying strings to sticks and paper clip “hooks” to the end of the strings.



Goin' on a Fishin' Trip

(to the tune of "Goin' on a Bear Hunt")

One person leads, the rest of the group repeats each line after

Goin' on a fishing trip

(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

What's that? We'll need some worms? (shrug shoulders)

Let's dig...

Diggin' to the left, (digging motions)

Diggin' to the right,

Diggin' right in front.

Put the worms in the pail. Let's go!

Goin' on a fishing trip

(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

What's that? We'll need a pole? (shrug shoulders)

Let's find a branch on that tree...

Climb up to the left, (climbing motions)

Climb up to the right,

Climb up right in front.

Got it and tied a string and a hook.

Goin' on a fishing trip

(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

What's that? We need a lake? (shrug shoulders)

Let's drive.

Drivin' to the left, (steering wheel motion)

Drivin' to the right,

Drivin' straight ahead.

We're there! Let's go!

Goin' on a fishing trip

(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

What's that? How do you fish? (shrug shoulders)

Let's cast...

Cast it to the left, (casting motion)

Cast it to the right,

Cast it straight ahead.

And wait... and wait... and wait...

Goin' on a fishing trip

(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

What's that? I got a bite! (shrug shoulders)

Reel it in to the left,

Reel it in to the right,

Reel it straight in...

Whoa! It's HUGE!

Goin' on a fishing trip

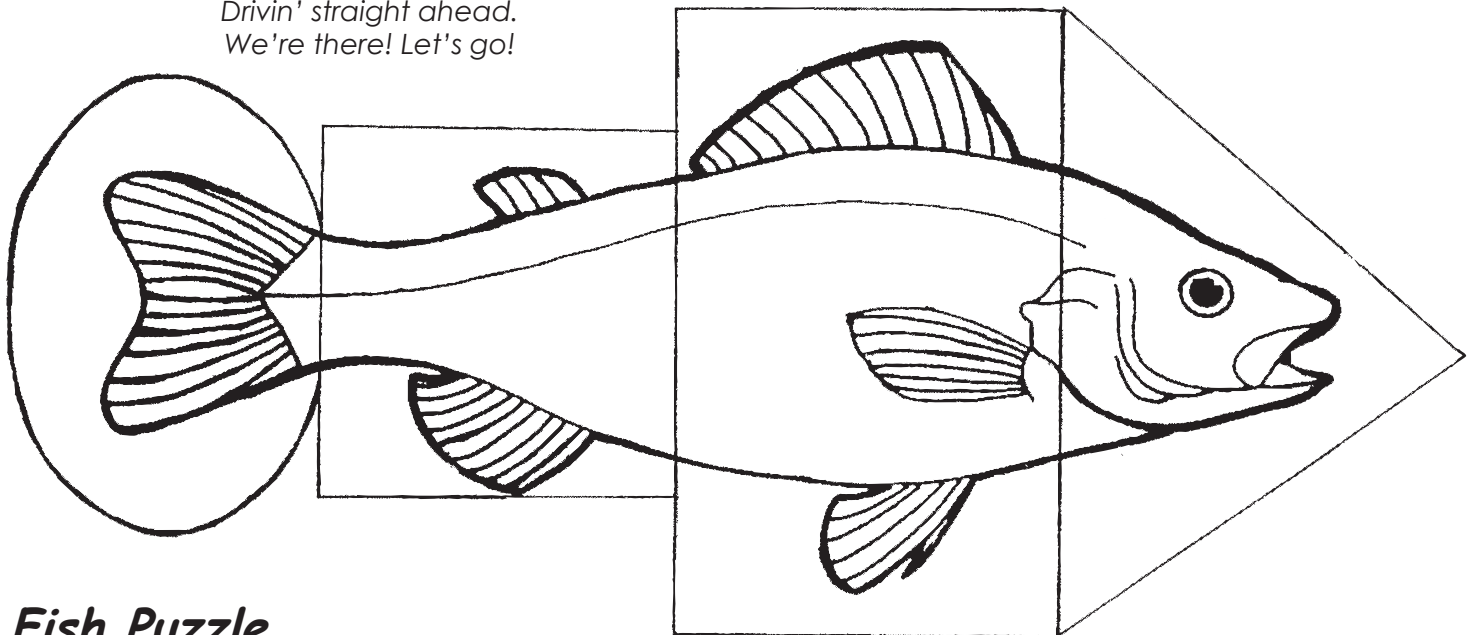
(slap hands on thighs like walking)

Gonna catch a big one

I'm so excited (jump up and down)

I caught a BIG one, (make big measure with hands)

And then I let it go!



Fish Puzzle

Directions: Make a copy of the puzzle above for each child. Make it a "puzzle" by cutting the pieces out for them. Let children "fish" for the pieces to complete their puzzles. Allow children to glue their puzzles to construction paper if they wish. Encourage them to add habitat components (food and shelter) for their fish.