



## **Fish & Fishing Session Outline**

### **For the Outdoor Skills Program**

### **5<sup>th</sup>-6<sup>th</sup> Grade Lessons**

- I. Welcome students and ask group what they remember or learned in the last session.
- II. Activity: Fish of Nebraska; learn to identify some common fish species.
- III. Discussion: Why is it important to be able to identify fish? Take notes, do sketches or complete other activities in journals as time allows.
- IV. Activity: Fishing Equipment; learn about basic fishing equipment and how to use it.
- V. Wrap up: Ask the students what they enjoyed most about today's session and what they enjoyed the least. (Highs & Lows)

The Outdoor Skills program is a partnership with Nebraska Games & Parks and the UNL Extension/4-H Youth Development Program to provide hands-on lessons for youth during their afterschool time and school days off. It provides the opportunity to master skills in the areas of hunting, fishing, and exploring the outdoors. This educational program is part of the 20 year plan to recruit, develop and retain hunters, anglers, and outdoor enthusiasts in Nebraska.

# Inventory

## Session: Fishing

## Curriculum Level: 5-6

### Kit Materials & Equipment

- (12) 2-piece rod & reel combos
- (3) Backyard Bass casting targets
- (25) casting plugs
- Fishing rig poster
- Fishing equipment poster
- Laminated fish photos
- Tackle box poster
- Nail Clippers

- (15) Common fishes of Nebraska pocket guide
- (15) Current fishing regulations

### Supplies Instructor Provides

- Large indoor/outdoor area with at least 15 feet of overhead clearance

### Materials to be Restocked-After Each Use

- (15) Common fishes of Nebraska pocket guide
- (15) Current fishing regulations

For information on restocking items contact Julia Plugge at 402-471-6009 or [julia.plugge@nebraska.gov](mailto:julia.plugge@nebraska.gov)

**All orders must be placed at least 2 weeks in advance.**

# Session: Fish & Fishing

## Activity: Fishing Equipment

**Grade/Age Level:**  
5<sup>th</sup> & 6<sup>th</sup> grade

**Objectives:** Participants will

1. Identify the basic types of fishing equipment used to fish in Nebraska
2. Assemble and cast using a basic fishing set-up.

**Method:** Students will learn the types of fishing equipment and how to use the some of the equipment.

### Materials in Activity Tub:

15 Closed face spincast reels and 2-piece medium action rod combos with 8-10 lb. test line **must be stored disassembled to prevent breakage**, 3 backyard bass casting targets, 25 casting plugs, photos and poster of other fishing tackle, tackle box poster.

### Materials Needed to Conduct Activity:

Large indoor or outdoor area with at least 15 feet of clearance overhead for casting. Optional equipment: different types of rods & reels, tackle, bait, knot tying kit (some of these items can be requested from the Ak-Sar-Ben Aquarium 402-332-3901)

**Duration:** 30 Minutes

**Group Size:** 30 participants

**Setting:** Outdoors or indoors

**Key Terms:** Closed spin casting reel, closed spin casting rod, fishing line.

**SET Ability:** Use Tools

## Background:

### Rods

In its simplest form, a fishing pole, or rod, is a stick used to throw out a line with a hook on the end for the purpose of catching fish.

Sport fishing rods vary in width, length and flexibility (action), depending on where you're fishing and what you're trying to catch. Basically, you want a rod that is stiff enough so it doesn't break when a fish is on your line. But flexible enough to absorb the tension of a fighting fish, so you don't break your line.

### Closed-Spin Casting Rods



Spin Casting Rod

Bait-casting and closed-spin casting rods are designed to hold reels that are mounted above the handle. So the line-guide eyes are on the top and the casting trigger is on the bottom.

They're made from graphite or fiberglass with a cork or PVC foam handle and tend to be between 5 and 8.5 feet (1.5 to 2.6 m) in length. They have anywhere from five to eight guide eyes to help control the line. The eyes decrease in size from the handle to the tip, with the one nearest the handle usually much larger than the rest to allow less friction as the coiled line comes off the reel.

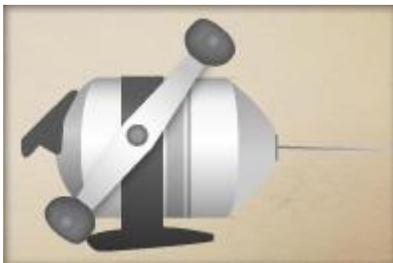
## **Reels**

The oldest evidence of fishing reels is from a Chinese painting done around A.D. 1195. Fishing reels first appeared in England around 1650. George Snyder of Paris, Kentucky, is given credit for inventing the first fishing reel in America around 1820.

In basic terms, a reel is a mechanical device that holds and spools out fishing line. It has a brake to slow running fish, a handle to retrieve line and a bracket to fasten the reel to a fishing rod. For anybody who's ever knotted-up a line, you know that fishing reels can be a little temperamental. For experienced anglers, however, a fishing reel is a beautifully effective and efficient device for catching fish.

Over the years, hundreds of companies have made thousands of models of fishing reels. But basically there are four types of reels you should know. They vary in size from reels as small as a baseball to giant, sea-fishing reels as big as your head.

### ***Closed Spin Casting Reel***



#### **Closed Spin-Casting Reel**

As with the open-bail spinning reel, the line on this reel is thrown from a fixed spool, so you can use relatively light lures and baits. However, the closed

spin-cast reel eliminates the large wire bail and line roller in favor of one or two simple pickup pins and a metal cup to wind the line on the spool.

Traditionally mounted above the rod, the spin cast reel is also fitted with an external nose cone that encloses and protects the fixed spool.

### ***Fishing Line***

Fishing line is available in a variety of weights. Most anglers use monofilament nylon. A good line weight to start with is 6- to 12-pound test. "Pound test" refers to the strength of the line. It's the amount of weight required to break the line. For example, 10-pound test lines are stronger than 4-pound test.

The trick is to match the pound test line to the size of your rod and reel, the kind of bait or lure you're using, and the species of fish you want to catch. And there, is the key to good fishing.

Using heavier line than necessary may reduce the number of bites or strikes you get because heavy line is more visible in water. And if your line is too light, a bigger fish can break it and take your whole rig.

**For more information on specific fishing equipment go to:**

<http://www.takemefishing.org/fishing/fishopedia/bait-and-equipment>

### ***Activity:***

*Before the activity*

1. Find a large area at least 25' wide and 100' long for the casting area. Make sure you are not under trees or other objects. If outside cast with the wind if possible.
2. Unpack rods & reels, they are stored with the 2 piece rod disassembled and the line reeled in except for a loop which is wrapped around the handle. You will have to assemble the rods & put a casting plug on each of

them. You can either do this yourself prior to the program or have the students assemble them during the program.

3. If any equipment is damaged make a note on the equipment and contact Ak-Sar-Ben Aquarium for replacements 402-332-3901.

### *Procedure*

1. Ask the group of students "Have you gone fishing in Nebraska? What kind of equipment do you need?" Record their replies.
2. Show the students how to assemble the 2- piece rod and push the button on the closed spin casting reel to show how it works. Let the line out and string it through the eyelets, tie a casting plug onto the end of the line. For this activity any knot is fine as long as it is tight.
3. Divide the participants into teams of 2-3 and give each team a rod & reel to assemble with the casting plug.
4. Next line the students up with their teams and demonstrate how to cast using the backyard bass as casting targets set about 10-20' ahead of the group. Use a gentle overhand cast when casting to prevent casting across the group and creating tangles. *Press the button on the reel to hold line and casting plug; then release the button for the line and casting plug to go out. When you cast hold the button, bring pole up towards your ear holding your elbow in near your body, keep feet facing forward. With a flick of arm move the pole forward keeping your elbow in. As the pole moves past your nose release the button and let the line out. For a gentle overhand cast go slowly and try not to whip the pole. Set out targets close and at a distance to help participants work on accuracy.*
5. Have each student cast 3-5 times and then rotate to another student.
6. Optional, demonstrate how to untangle, tie knots and retrieve line from tree if necessary!
7. Practice different kinds of casts such as the pitch, toss and flip.
8. When done remove casting plugs, tie a wrist sized loop in the end of the line and reel in all the line except the loop which should be put around the reel handle. Take apart the rod and wrap with 2 rubber bands for storage.

# Session: Fish & Fishing

## Activity: Fish of Nebraska

**Grade/Age Level:**  
5<sup>th</sup> & 6<sup>th</sup> grade

**Objectives:** Participants will  
1. Identify the basic characteristics of common fish of Nebraska and generally where they are found.

**Method:** Students identify the fish species from photos, models, posters or actual fish.

**Materials in Activity Tub:**  
Fish of Nebraska poster, fish anatomy poster, laminated fish pictures, Common fish of Nebraska pocket books, current fishing guides

### Materials Needed to Conduct Activity:

Chalk or dry erase board or large paper and writing utensils. Common Fishes of Nebraska books and Fishing Guides for each participant; request books prior to class from Ak-Sar-Ben Aquarium 402-332-3901.

**Duration:** 30 Minutes

**Group Size:** groups of 2-3 participants

**Setting:** Outdoors or indoors

**Key Terms:** Lateral line, gills, dorsal fin, caudal fin, anal fin, pelvic fin, pectoral fin, nares

**SET Ability:** Categorize/Order/Classify

### Background:

“At first glance fish seem very different from humans. How can we really understand what they are about? We breathe and move about in air; fish breathe and move about in water. We have hands and arms and legs to touch and reach and move: fish have fins for balance and movement, and feel with a sensitive collection of nerves on their sides. We protect ourselves by shielding our bodies with inventions shoes and hats: fish protect themselves with built-in spiny fins. We have noses

that help us smell and breathe: fish have nares, an indentation above their mouths that enables a very keen sense of smell but not breathing. We have skin that feels dry to the touch; fish have a layer of slime covering their bodies.

These characteristics vary from fish species to fish species in ways that allow that fish to live in a specific habitat niche.” (*Passport to Fishing & Boating 2003*)

For example; catfish have whiskers that allow them to sense food in low light conditions, the catfish live at the bottom of lakes and rivers where there is lots of sediment and not much sunlight. The color, size and arrangement of a fish’s fins and other body parts are what make the fish species identifiable to us. It is important for an angler to know the fish species especially if he or she wants to keep a fish. There are regulations in every state which tell the public the type, size and number of fish species that people can keep.

## Activity:

### *Before the activity*

1. Request Common Fishes of Nebraska books and current Fishing Guides from Ak-Sar-Ben Aquarium if there aren't any in your tub.
2. Get a fish model or actual fish for the students to identify (optional).

### *Procedure*

1. Ask the entire group of students "What kinds of fish might you catch while fishing in Nebraska?" Write down student responses on board or paper.
2. Ask "How would you know what kind of fish you've caught?"
3. Show Fish Anatomy poster and point out body parts, shapes and colors that will help to identify a fish species. (Actual fish or model could be used here.)
4. Divide the participants into teams of 2-3 and give each team 1-2 fish photos and each person a Common Fishes of Nebraska book.

5. Have students work together to identify the fish species in each photo.
6. After 5 min. have each group present to the entire group which species is in the photo and read all of the information about that fish from the Common Fishes of Nebraska book.
7. Give all of the students' copies of the current Nebraska Fishing Guide for information on regulations, lakes and licenses.

# Fish Identification Key

1. **Walleye** – blue/white eye, white dot on bottom of tail fin
2. **Northern Pike** – duck bill mouth, oval shaped spots
3. **Blue Catfish** – whiskers, notched tail, straight margin on anal fin
4. **Yellow Perch** – vertical stripes
5. **Green Sunfish** – blue striping on face, dark gill tab cover
6. **Largemouth Bass** – horizontal strip, large mandible (mouth/lip) that extends beyond the eye
7. **Freshwater Drum** – humped back, silver
8. **Channel Catfish** – notched tail, spotted when small, rounded margin on anal fin
9. **Black Crappie** – round flat body, mostly black spotted
10. **Bluegill** – round flat body, small mouth, dark blue gill tab cover