

NEBRASKA



Fishing Session Outline For the Outdoor Skills Program

- I. Welcome students and ask group what they remember or learned in the last session.
- II. Lessons
 - a. Ask students “Where do we get the materials for fishing gear today? Do we need expensive fishing equipment to catch fish?”
 - b. Activity: Build a Pop Can Caster.
- III. Frisbee Moment: Ask the students what they enjoyed most about today’s session and what they enjoyed the least.

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

Kit Materials & Equipment

(12) Casting plugs (*return all plugs to kit*)

Knot tying kit: oversized hooks, cord & nail clippers

Directions

Fishing rig poster

(5) long lengths of rope

(3) fish shaped casting targets

Needle-nose pliers

Masking tape

Monofilament

Bobbers

Hooks

Sinkers

Materials to be Restocked-After Each Use

- Masking tape
- Monofilament
- Bobbers
- Hooks
- Sinkers

Session: Fishing

Title of Activity: Build a Pop Can Caster Minnesota DNR 2007

Objectives: Participants will

- 1). Make a fishing rig from a pop can.
- 2). Demonstrate how to accurately cast a line.

Method: Students will learn that by using everyday materials they can make fishing gear.

Materials Contained in Activity Tub:

Fishing hooks, masking tape, sinkers, pliers, monofilament, bobbers, nail

Duration: 60 Minutes

Group Size: up to 12 students in groups of 2-3 people

Setting: Indoors or Outdoors

Key Terms: Monofilament, clinch knot, habitat, bobber, sinker.

Fair Exhibit: Pop can caster or cane pole and fishing rig.

SET Abilities: use tools, build/construct

clippers, tape, casting plugs, 5 long lengths of rope, 5 oversized hooks or eyebolts, 5 lengths of cord, casting plugs

Materials Needed to Conduct Activity:

Pop cans

Background:

Traditionally, people have fished to feed themselves, their families and their communities. Archeological research and ancient literature reveal that fishing has been as important as hunting to many aboriginal people worldwide. The survival of numerous ancient tribes and civilizations depended on fishing skills. Knowledge of fish behavior, migration patterns and habitats were essential for people who relied on fishing. Having a bad fishing day wasn't an option when lives depended on an adequate supply of fish. Many people who depend on the fish they catch as a primary food source are involved in the activity referred to as subsistence fishing.

Sport fishing, or angling for enjoyment, began in medieval times. Sport anglers may fish for food, too, but fish isn't these anglers' primary food. The sport angler fishes for fun and enjoys the challenges of learning about fish behavior and developing fishing skills. These anglers also enjoy spending time outdoors, appreciating nature and spending time with friends and family. Fly-tying, boating, making fishing equipment and taxidermy are all fulfilling, lifelong hobbies for many sport anglers.

Many techniques for harvesting fish have been developed over the centuries. People have long used everyday materials to make fishing gear. Techniques include: catching fish with bare hands, hooks and lines, spears, nets, night fishing with lights, weirs (traps) and dip nets. The rod and reel assembly used by most modern sport anglers is a relatively recent invention, first documented in fifteenth century literature. In many parts of the world, angling is still done by hand with a hook and line rather than with a rod.

The hook, bait and weight are simply cradled in the angler's throwing hand while holding the end of the line with the other. The whole assembly is then tossed into the water toward good fish habitat.

Although many people who fish today take advantage of widely available technological advances in fishing gear and equipment, such as graphite rods, depth finders and underwater cameras, expensive high-tech equipment isn't necessary for catching fish and enjoying angling. Everyday materials can still be used to make a fishing rig. In this lesson, basic hook and line fishing techniques will be used to construct pop can fishing rigs.

Pop can fishing rigs are simple to make with a few basic supplies. With an ordinary pop can, a length of monofilament fishing line, bobber, sinker, hook and the improved clinch knot students will make their own fishing rig. Catching fish on rigs they've made themselves is exciting and satisfying for students.

Activity:

Before the Activity

1. Prepare materials for pop can caster.
2. You will need to collect cans for each student.

Procedure

Tying a knot

1. Ask the students where do we get the materials for fishing gear today? Do we need expensive fishing equipment to catch fish? Tell the students if they know how to rig a line, they can use everyday materials to make a fishing rig that will catch fish!
2. Begin by teaching the group how to tie a clinch knot. This knot is important because it links your hook to the line. Without a sturdy setup, you're likely to lose your fish!

3. Pass out the Tying an Improved Clinch Knot Sheets. Using oversized hooks or eye bolts and cord, demonstrate how to tie an improved clinch knot as shown on the handout. The cord represents the fishing line. One end of the fishing line is the end of the line that would be attached to the pop can; the other end of the cord is the free end (or tag end) of the line.
4. Have a student hold the oversized hook or eye bolt while you talk through the steps and tie the knot.
5. Untie the knot and have the group talk you through the steps as you tie the knot again.
6. Divide the group into pairs and give each pair an oversized hook or eyebolt and piece of cord. Ask each person to practice tying the knot. Assist those who need additional help and encourage those who tie the knot successfully to help others.
7. Make sure everyone has mastered this knot before going on to the rigging.

Make the Pop Can Casters

1. Hand out the Pop Can Casting Sheet.
2. Set up the empty pop cans, masking tape, fishing line, clippers and casting plugs at tables, allowing enough workspace for everyone.
3. Have students follow the steps on the sheet.
4. At this time, change Step 4 on the handout to attaching only a casting plug with an improved clinch knot so students can use the pop can rigs for casting practice.

Casting for Cover

1. Discuss the importance of casting close to cover. For instance, largemouth bass wait for prey in the shade of a lily pad. Our fishing lure imitates prey. If we can fool the bass, we'll get a bite!
2. Demonstrate the proper technique for casting a pop can rig. Make sure your hand or thumb isn't over the line wrapped around the can.
3. To practice casting, and to reinforce the importance of habitat when picking a fishing spot, set up a pop can casting course. Place the 5 long lengths of rope in circles on the ground for targets. Set up a series of stations golf-course style, with each station representing a different fish habitat. Then let the group "cast for cover" from fifteen to twenty feet away. Allow everyone at least three tries at each station before moving to the next station. Once a person casts inside the circle, they should be asked to identify the type of fish they would've caught and move on to the next station. Watch the group and help as needed.

Rigging for Fishing

1. Remove the casting plugs.
2. Refer to the Pop Can Rigging Sheet distributed earlier.
3. Have the students pull a two-foot length of line from the pop can.
4. Demonstrate how to attach each piece of tackle (bobber, sinker and hook).
5. Hand out the tackle one piece at a time so students don't lose the small pieces. Have students rig their pop can casters.
6. It might help to tape the hook to the top of a desk or table using a piece of masking tape, with the eye exposed over the edge. The sharp hook is safely secured,

and the students then have both hands free to tie the knot.

7. Check to make sure that everyone has properly rigged their pop can caster.
8. Review how to safely carry the pop can casters.

Info on Rigging

Sinkers – Split shot sinkers are small weights with "wings" on one end and a deep slit or "mouth" on the other. If you squeeze the wings together, the mouth opens. Split shot sinkers are made of ceramic materials, lead, tin or other non-lead metals. Sinkers allow the bait to be cast, and they help it to sink. They also keep the line tight so the angler can sense that a fish is biting. Using needlenosed pliers, open the mouth slightly and slide in the line – about nine inches from the tag end of the line. The tag end is the loose end of the line with nothing attached. With the needlenosed pliers, pinch the mouth tightly on the line to hold the sinker to the line securely.

Bobber – To attach a clip-on bobber, put your thumb over the button and press down. Watch how a small "hook" comes out of the bobber at the bottom end. Attach the line onto this small hook, about eighteen inches from the end of the line.

Release the button and put your thumb over the spot on the bottom of the bobber where the tiny hook receded into the bobber. Pull the edges of the button down. Another small hook should come out of the top of the button. Clip that top hook onto the line so the button end of the bobber points towards the rod tip.

This activity is from the MinnAQUA Program "Fishing: Get in the Habitat" Minnesota DNR 2007.



Journal time!

Where do you want to go fishing with your Pop Can Caster? Write about where you will go fishing and what kind of fish you will try to catch. Think about

what other things you need to go fishing and make a list of what to bring along. (For example: bait, drinking water and sunglasses.)

Fishy Fishy Tag

Materials: 4-6 hoola hoops
50-80 poker chips or colored paper squares
Large piece of paper for graphing
Markers

Grade level: K-5th Grade.

Group size: About 25 students but can be adapted for larger or smaller groups.

Duration: 20 minute sessions.

Objective: Fishy Fishy Tag shows how Bass and Bluegill populations change over time, the impact this can have, and what can be done to stabilize the changes. This is a great way to teach children about fisheries management techniques, population dynamics and two of Nebraska's native species of fish. This is a great game for a high energy group.

Discussion: Bluegills are sunfish found in clear, calm and warm waters such as those of rivers, ponds, streams and lakes. They hide amongst submerged logs, rocks, aquatic vegetation, or any other protected areas. Bluegill, especially the young, are prey to Largemouth Bass. Bass, like the Bluegill, are sunfish that live in similar waters. They are considered a desirable predatory fish.

The Nebraska Game and Parks Commission (NGPC) monitors fish populations in Nebraska waters, and stocks fish where needed. Bass and Bluegill are usually only stocked initially in a body of water that is new or had been drained for needed improvements. Since they spawn readily and usually have successful reproduction in our state, they are generally not restocked. Population surveys help the NGPC determine fishing regulations such as size and bag limits, therefore using anglers to assist in keeping a healthy fish population in check.

Occasionally, water quality drops sometimes resulting in a fish kill. Water quality can change due to in nutrients or sediments in the water, a lake turnover, climate changes and so forth. The NGPC determines the cause and responds with whatever measure is appropriate such as, habitat improvement, renovation, fish stocking or fishing regulation changes.

Procedure: (Steps 3 & 4 can be used with older groups)

- 1) Designate most the children as Bluegills, but choose 2 to be the Bass.
- 2) Place 6 to 8 hoola hoops in various places within a large running area, and these will be used as "hiding spots." They represent "safe" or "base" for the Bluegills where the Bass can not get them. To make it fair, only allow 3 Bluegill in a "hiding spot" at a time, and have them count to 5, then they have to leave and eat

or find a new “hiding spot.” Do not allow the Bass to wait or “puppy guard” the “hiding spot.”

- 3) Explain that Bluegill have to eat to survive, the paper squares or poker chips represent food such as insects. Spread the “food” around the playing area. Bluegills must collect at least 2 pieces of food per round. If a Bluegill collects more than 3 pieces they will grow larger. Record how many Bluegill have enough food to live to the next round, how many will stay the same size and how many will grow larger. (In a pond with too many Bluegill, there will be many stunted fish and not enough food, often this is when there are few predators to eat the many Bluegill.)
- 4) When a Bluegill is tagged they will go outside the boundary of the game and become Bass in the next round. The “food” should also be returned to the game area before each round. The amount of “food” can be altered in later rounds to represent years of more or fewer insects.
- 5) After a couple rounds of 2 to 5 minutes each, you will see a trend of more and more Bass and fewer Bluegill. This is when you can introduce an angler who can “catch” some of the Bass, and then they can go back to being Bluegill. This can be done by assigning an adult to be an angler, or choosing a student to be the angler. They can just “catch” their Bass and change them to Bluegills before the start of the round
- 6) You can also “stock” some Bluegill by switching some of the Bass to Bluegill. This will show the fluctuations of the populations. You could even keep track of the numbers by marking the population numbers after each round on a piece of paper, then show the graph at the end.



You have your own pop can caster, go fishing! Before headed out it is best to plan your trip.

Where do you want to go fishing with your Pop Can Caster? Describe and/or draw a picture of the area.

What kind of fish will you catch? Draw a picture of your fish.



Think about what other things you need to go fishing. Make a list of what to bring. (For example: bait, drinking water and sunglasses)

What I will take on my fishing trip

_____	_____
_____	_____
_____	_____
_____	_____