

STATION: 2

FISHING KNOTS & RIGGING



PREPARATION

Objectives

The Fishing Knots & Rigging Station teaches participants two fundamental skills that are essential to becoming independent anglers: how to tie a basic knot and how to assemble a basic rig. Because this station requires participants to focus on a task, use their fine motor skills and handle hooks, instructors should include adult volunteers and parents to assist. Pre-planning and careful organization of materials are a must for the presenter.

Upon completion of the station, participants will have a basic rig to take home and will know how to:

1. **Bend down the barb on a barbed hook**
2. **Tie a reliable knot for attaching hooks to fishing line**
3. **Protect wildlife by using non-lead sinkers and picking up discarded fishing line**
4. **Assemble basic rigging**
5. **Identify baits, lures and flies that attract fish**

Materials

For Knot Tying:

- Large hook

DULL THE BARB BEFORE USING IN DEMONSTRATION.

- 1 length of parachute cord or 1/8-inch braided nylon rope (5 feet long)

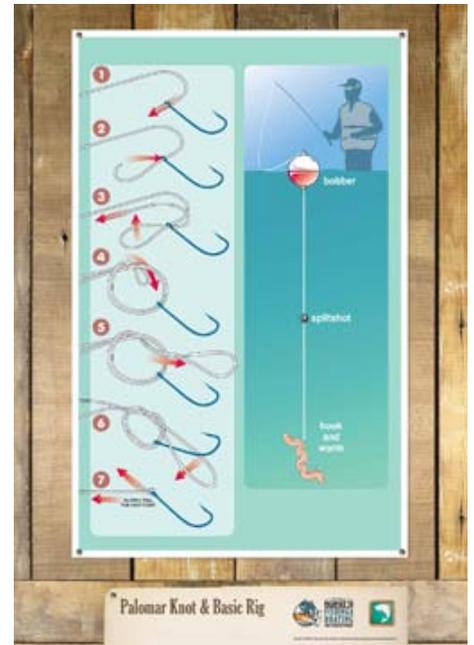
Make sure the rope will fit through the eye of the large hook and come back through again, forming a sufficient loop to complete the knot.

- Supplies for each person in each group to make rigs to take home
 - Spool of 10-pound test line, pre-cut into 4-foot sections*
 - Barbed hooks – with barbs crushed so they are ready for use*
 - Allocate one line/hook combination per participant, plus extras in case of loss and breakage.*

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- 1 barbed hook with barb intact (so presenter can demonstrate crushing technique)
- 1 barb-free hook (so presenter can show the difference in hooks)
- 1 circle hook (so presenter can promote it for fish conservation and for ease of use with live bait)
- Nail clippers for cutting line (at least one for each pair of participants)
- Needle-nose pliers (at least one for each pair of participants)
- Knot Tying Poster



For Rigging:

- Complete rig with rod, reel, line, bobber, splitshot and hook
If complete rod is unavailable, use the Kit's Fishing Equipment Poster to teach about the components of a rig.
- Supplies for each person in each group to make rigs to take home
Removable splitshot (no lead)
Bobbers
Plastic bait worms
(If unavailable, use masking tape or Styrofoam pieces to cover hook ends.)
Plastic bags, envelopes, etc. in which participants will take their rigs home
Pens to write names on take-home rig packages
Allocate one of each per participant, plus extras in case of loss and breakage.
- Bait for participants to pass around and smell
Possibilities include scented bait, salmon eggs, canned corn, processed cheese or other bait favored by sought-after fish in your area.

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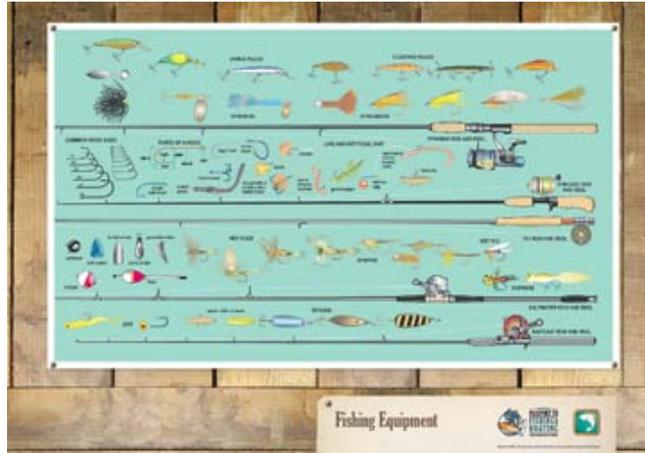
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- Fishing Equipment Poster



- Tackle box showing an array of equipment commonly used in your area
- Where to purchase materials:
 - **Mark Stephens, of Project F.I.S.H.**
at Michigan State University.
Mark may be reached via phone 517-432-2700,
email steph143@msu.edu or visit www.projectfish.org
 - Visit your local retailer.

PRESENTATION OUTLINE

I. Introduce yourself and the station.

II. Objective 1: Crushing barbs

- A. Discuss the properties of hooks and the need for safe handling.
- B. Encourage participants to choose circle hooks.
 1. Rarely swallowed by fish, thereby decreasing mortality rate of released fish.
 2. Excellent option when fishing with live bait.
- C. Promote use of barb-free hooks or crushing the barb.
 1. Makes it easier to unhook the fish.
 2. Easier to remove if accidentally snagged on clothing.
- D. Demonstrate how to crush the barb.
 1. Use needle-nose pliers to crush the barb against the shank of the hook.

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2. Hold up a barbed and a crushed-barb hook side by side so group can compare.

III. Objective 2: Tying knots

- A. Explain that knots are the most important part of a fishing rig.
 1. Go over the components to be used – fishing line and crushed-barb hooks.
 2. Use Knot Tying poster to introduce different types of knots and their uses, identifying the Clinch Knot as a versatile knot that works well for beginners.
- B. Teach the Clinch Knot
 1. Demonstrate how to tie the Clinch Knot using a large hook and the parachute cord.
 - a. Pass the tag end of the line through the eye.
 - b. Double back and make five turns around the standing line.
 - c. Pass the tag end through the first loop by the hook's eye.
 - d. Slide coils tight against the eye.

NOTE: A small diagram should accompany the clinch knot steps.

See these for examples: <http://www.bayareafishing.com/>,

<http://www.angelfire.com/ia3/fishing/knots.htm#clinch>

2. Lead group through Clinch Knot, using their line and crushed-barb hooks.
 - a. Again use the large hook and cord to guide participants through each step.
 - b. Demonstrate how to use the nail clippers to trim the line.

IV. Objective 3: Protecting wildlife

- A. Expand line-trimming discussion to introduce wildlife protection responsibilities.
 1. Fishing line will often get nicked or rough; therefore, trimming is an ongoing job.
 2. Wildlife of all sorts – birds, turtles, frogs, fish, etc. – can get tangled in discarded line and die.

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3. Responsible anglers put the discarded line in their pockets or tackle box every time they trim and throw it away later in a safe trash can.

B. Introduce the sinker and explain that choosing the right kind is another way anglers can protect wildlife – and themselves.

1. Sinkers are often made of lead and can cause lead poisoning when they are left in the water and/or eaten by wildlife.

2. Lead poisoning can cause neurological, renal, cardiovascular and reproductive problems.

3. Responsible anglers always use sinkers made of either tin or steel – not lead.

V. Objective 4: Assembling rigging

A. Continue with the splitshot sinker to begin the rigging assembly demonstration.

1. Explain that the sample is a lead-free splitshot sinker.

2. Use the pliers to open the splitshot – reinforce that pliers, not teeth, are the correct tool.

3. Put the line through and pinch it closed with the pliers.

4. Lead the group through attaching sinkers to their own lines.

B. Introduce the bobber and its purpose: to keep bait suspended beneath the water's surface but off the bottom.

1. Demonstrate how to attach the bobber.

2. Lead the group through attaching their own bobbers to their lines.

C. Show group how to attach plastic worms to their hooks (or masking tape or Styrofoam piece, if using instead of worms); then have them attach their own.

D. Review the components and steps for assembling the rigging.

E. Have participants put their rigging into the bags/envelopes with their names on them.

VI. Objective 5: Identifying baits, lures and flies

A. Begin with bait, as it is actual fish food and easiest for new anglers to work with.

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1. Discuss the importance of choosing bait that looks, smells and tastes like something the fish eat as part of their natural diet.
2. Identify the specific baits in your demonstration and the fish that prefer them.
3. Pass around the baits and encourage group to smell each one.

B. Move on to lures and flies.

1. Make the distinction between bait, which is actual food, and lures and flies, which trick the fish by looking like smaller fish, flies and insects the fish like to eat.
2. Use samples from tackle box and/or refer to Fishing Equipment poster to identify lures and flies.
3. Explain that fish will eat bait – but they will attempt to spit out lures and flies once they get a taste.
4. Discuss the importance of practice to gain the skills the group will need to use lures and flies successfully.

VII. Review of complete rigging

A. Use the complete rigging and/or the Fishing Equipment poster to go over key components.

1. Explain the function of each component and how it works. (Some of this information will be review.)
2. Devote particular attention to how the reel works so participants will understand how to tighten and loosen it as the fish “fight.”
3. Teach the group about setting the drag properly.

B. Discuss which equipment is best for beginners.

VIII. Review of station’s major points

A. Using barb-free hooks or crushing the barb is important because fish that are being released can be freed easier and hooks are less likely to catch on things such as clothing when there’s no barb.

B. The Clinch Knot is a good choice for beginning anglers.

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- C. Disposing of fishing line properly and using non-lead sinkers are simple yet critical ways anglers can protect wildlife.
- D. The basic rigging includes the line, hook, sinker and bobber.
- E. Bait attracts fish because it consists of things fish like to eat. Lures and flies attract fish by looking like things fish like to eat.

TIPS and OPTIONS

- If possible, an experienced, adult angler is best suited to teach this station. Two volunteers are strongly recommended to assist participants and presenter.
- If parents are available, include them in this station for assistance in assembling the basic rig and for additional safety.
- Look for opportunities to customize the content with specifics about fish that are native to your area.
- Make sure you have all materials and teaching tools. Organize them by their use in the two sections for this station: Knot Tying and Rigging.
- Display the two posters so everyone can see them easily. You'll likely refer to these posters repeatedly throughout your presentation.
- During the initial knot-tying demonstration, it may be helpful to have an adult volunteer assist while the presenter ties the clinch knot.
- Face the group while teaching the actual knot tying. It may be helpful to turn your back occasionally so the group has the same orientation while they're tying their own knots, but the initial instruction should occur with presenter facing forward.
- Stay closely engaged with participants when they are handling the hooks and attaching the rubber worms.
- If the group seems ready and if time permits, the presenter may want to teach the Trilene Knot or the Improved Clinch Knot as good intermediate knots.
- Participants often ask for diagrams and other information so they can practice tying knots and learn new ones. Brochures illustrating a variety of knots are available – usually free of charge – from fishing-related organizations and manufacturers.

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ADDITIONAL INFORMATION

For further background information applicable to the Fishing Knots & Rigging Station:

- Take Me Fishing®:
<http://www.takemefishing.org/fishing/fishopedia/bait-and-equipment/lures-and-rigs/lures> and
<http://www.takemefishing.org/fishing/fishopedia/bait-and-equipment/knots/overview5>
- Grog's Animated Knots:
<http://www.animatedknots.com/knotlist.php?LogoImage=LogoGrog.jpg&Website=www.animatedknots.com>
- Net Knots: http://www.netknots.com/html/fishing_knots.html
- Active Angler: <http://www.activeangler.com/articles/how-to/articles/knots/index.asp>
- Fishing Tackle Tips: <http://www.fish4fun.com/knots.htm>

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