

Got Skills?

OBJECTIVES: Students will be able to:

- tie basic fishing knots
- assemble terminal tackle for certain fish
- demonstrate basic casting techniques

METHOD: Students will tie knots using ropes and then advance to fishing line. Students will work in teams to assemble terminal tackle. Students will practice casting.

MATERIALS:

- 1) Rope for each student to practice tying knots
- 2) Eye bolts or shower curtain rings for practice “hooks”
- 3) Hooks in various sizes
- 4) Fishing line
- 5) A variety of rods, reels, and lures
- 6) Tires, hoops, or Backyard Bass™ to use as casting targets

• See Appendix L for Get Rigged Information Sheet

SETTING: Outdoors or in a large indoor space (for example, a gym)

DURATION: Two to four 45-minute periods

VOCABULARY: Arbor knot, Improved Clinch knot, Palomar knot, Clinch knot, Blood knot, Nail knot, Uni knot, terminal tackle.

STANDARDS:

Physical Education: B 8.1, 8.3, 12.1, 12.2; C 8.1, 8.3, 12.2, 12.4, F.8.2, 12.6.

BACKGROUND: Knot-tying, terminal tackle assembly, and casting are all vital components of angling. Give your students time to become confident in each of these areas before moving on.

OPENING: Have the students read through **Got Skills** in their booklets. Divide the room or field into three stations: one for knot-tying, another for terminal tackle assembly, and the last for casting. The third station should have at least four targets for the four different casting methods. Show students the three areas and take time to demonstrate a knot, a terminal tackle set-up, and a casting method.

• If you have downloaded this booklet, please see the appendix that follows for additional materials.

MAIN ACTIVITY: Divide the class into two or three groups (two groups if doing casting on a separate day) and assign each group a station. If you have students who are experienced anglers, make sure they are divided up among the groups as assistants.

In the knot group, have students practice knots using rope and eye bolts or shower curtain rings before moving to hooks and fishing line. Let students know that you will be coming by to check on their progress and that you hope they will learn at least three knots by the end of the class. In the terminal tackle group, have the students divide into two teams. Each team will assemble several different rigs, based on the three different target species: a bluegill, a bullhead, and a walleye. Use the handout provided in Appendix L to inform students about tackle for the species. The teams will check each other’s work. In the casting group, students will practice several different styles of casting using tackle and targets. Allow students at least 20 minutes at each station so they can begin to feel comfortable with the skills.

CLOSING: Once all teams have done all stations, have them complete a skills relay race. The race could consist of only one of the activities or a combination of all three.

ASSESSMENT QUESTION: Name four things you should consider when selecting your terminal tackle.

ANSWERS: *What type of fish you are seeking, where this fish lives, what the fish eats, and what method of casting works well for the fish.*

EXTENSIONS:

Service Learning: Have students work with a community after-school program or nearby elementary school or start a school club to share their knowledge with their own peers.

In Depth: Have students test the strength of their knots using the Knot-testing Experiment and basic physics principles in fly casting. Additional Math and Science Standards are addressed in these activities.

• See Appendix L for Knot-testing Experiment Worksheet.

• See Appendix L for *Joining Physics and Physical Education through Fly Casting*.



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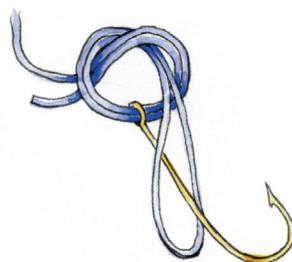
Got Skills?

Fishing is a set of skills that can be quickly learned but will improve over a lifetime of experiences. To head out fishing you need to know how to tie knots, assemble tackle, and cast your line.

Knot—As Easy As It Looks

Before you can catch a fish, your hook or lure needs to be attached to your line with a knot. Every angler has a favorite knot, and all knots have certain purposes and advantages or work best on certain types of line. Review the knot diagrams in this section and tie knots using practice materials such as rope and a shower curtain ring. Once you've mastered a knot or two using practice materials, move to fishing hooks and fishing line.

Regardless of how well you tie your knot, the knot is always the weakest point on a line—the part most likely to break when a fish fights back. A great knot still only retains about 90% of the line's test strength. For this reason, test strength on lines is almost always under-estimated. A 10-pound line may actually test at 11 to 16 pounds of pull, but it is rated down to account for your knot.



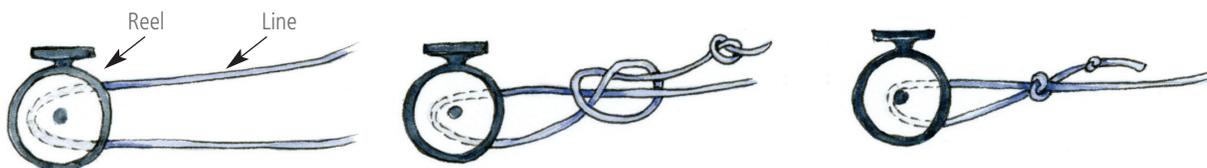
Palomar Knot



PLEASE SEE APPENDIX L
 Got Skills: Get Rigged
 Knot -testing
 Experiment
 Worksheet

Tying Line to Reel

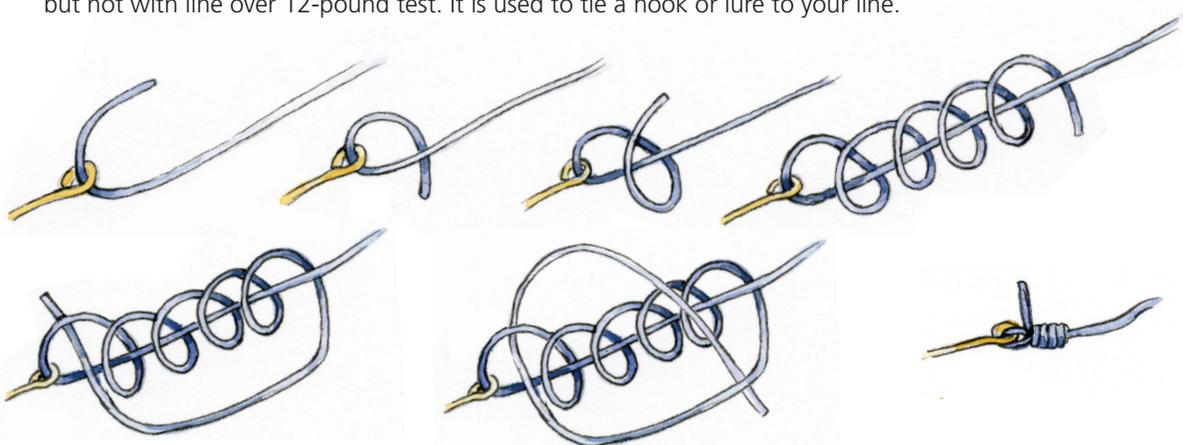
The **Arbor knot** is simple, easily learned, and effective. It is used most often to tie line onto a fishing reel, but is also used when setting up spinning reels.



Arbor Knot

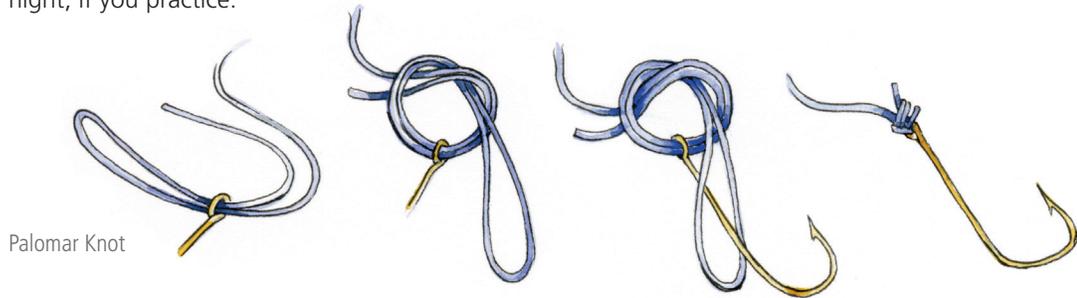
Tying Line to Hook or Lure

The **Improved Clinch Knot** is an angler's old standby. It works well on smaller line, but not with line over 12-pound test. It is used to tie a hook or lure to your line.



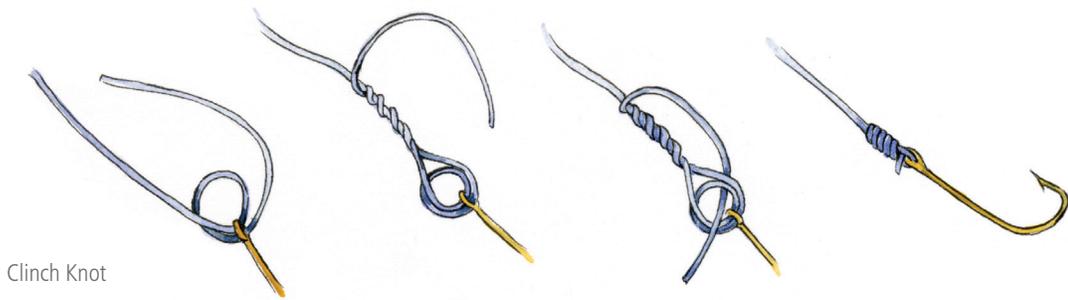
Improved Clinch Knot

The **Palomar Knot** is a strong and reliable way of tying a hook to a line. It can be tied in the dark of night, if you practice.



Palomar Knot

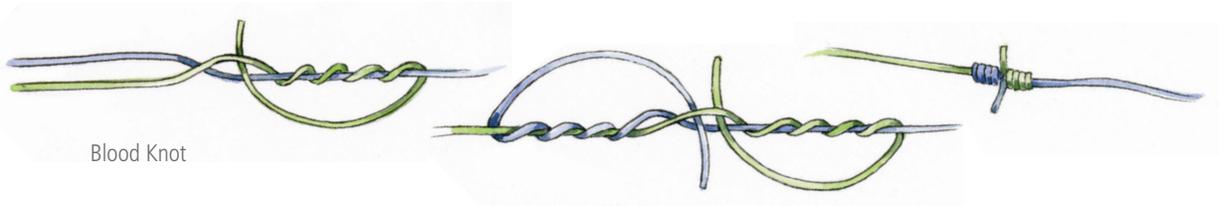
The **Clinch Knot** is for use with monofilament lines. It can attach hooks, swivels, and lures to monofilament in a way that resists slippage and failure.



Clinch Knot

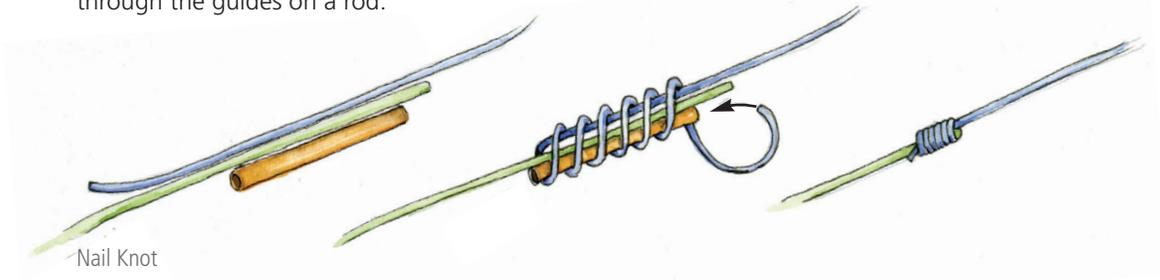
Tying Line to Line

The **Blood Knot** can tie lines of similar size together in a simple and effective manner.



Blood Knot

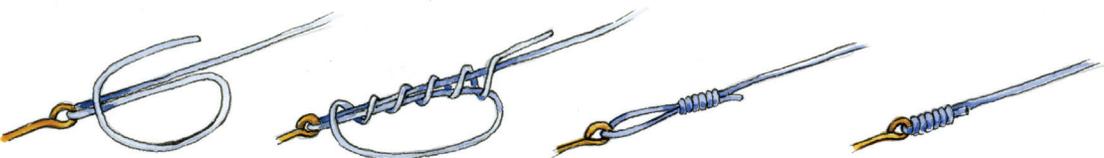
The **Nail Knot** ties lines of different diameter together. The Nail is smooth and will easily pass through the guides on a rod.



Nail Knot

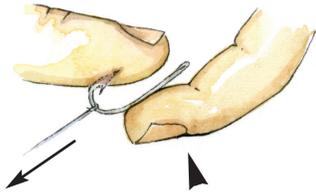
Multi-Purpose

The **Uni Knot** can be used for most knot purposes and can be tied in the dark. It is not as strong as some of the other knots, but it is very versatile.



Uni Knot

Finger Bait

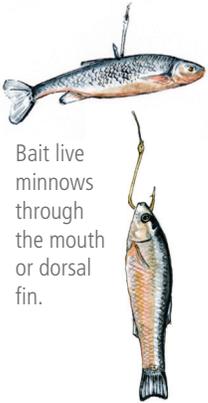


Watch your fingers when baiting a hook! One of the most common fishing accidents is getting stuck with a fish hook. If this happens to you and just the point of a fish hook is stuck, pull it out! If the hook goes into your skin past the barb, however, the wisest thing to do is to have a doctor remove it. If that's not possible, have your trusted fishing buddy loop a string around the shank of the hook, push down on the eye, and pull the string straight out. Flush the wound with hydrogen peroxide and make sure your tetanus shot is up to date!

Cast Away

Being able to cast well enough to accurately place the bait increases your chances of catching fish. Casting games help to develop your casting ability and improve your skill. The more you practice, the more control you have over your fishing success.

Before you cast ALWAYS look around you to make sure no one is nearby. Look behind you for trees and bushes and overhead for power lines. Make sure your line isn't wrapped around the tip of the rod. Lines can quickly become tangled messes!



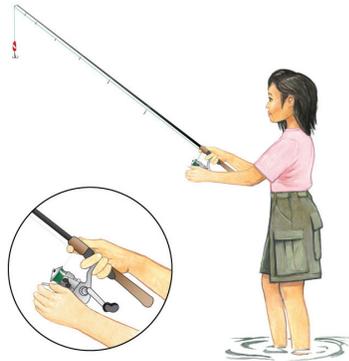
Bait live minnows through the mouth or dorsal fin.

A **spinning reel** has a bail that you must flip to free the line. To cast:



Similar steps apply to a **spincasting** reel (above), which has a pushbutton mechanism to free the line. In this case you do not need to grasp the line when casting, only when reeling.

For **baitcasting**, (below) hold your thumb over the line as it feeds off the reel to prevent snarling the line as it pays out.



1. Grasp the line under your index finger, hold it against the rod, and flip the bail.



2. Point the rod in the direction you want the bait to go and bend at the elbow for an overhand cast, or extend your arm for a side arm cast.



3. Smoothly throw forward and let your finger off the line to release it.



4. **Reel It In!** Apply tension by holding the line between your thumb and first finger to take up the slack. This helps the line wind snugly around the spool minimizing tangles.