

# Freshwater Rods and Reels

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*With the right rig, fishing is reel fun!*





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## Chapter 5 • Lesson 1

Please note: Academic Standards are updated regularly and our alignments will be updated on the DNR Academic Standards Website at: [www.mndnr.gov/education/teachers/edstandards\\_intro.html](http://www.mndnr.gov/education/teachers/edstandards_intro.html)

# Freshwater Rods and Reels

## Minnesota Academic Standards

- ☉ Lesson *introduces* this Benchmark.
- ☐ Lesson *partially* addresses this Benchmark.
- Lesson *fully* addresses this Benchmark.

### Language Arts

Grades 3, 4, 5

#### I. Reading and Literature

##### B. Vocabulary Expansion:

**Benchmark 1**—The student will acquire, understand and use new vocabulary through explicit instruction and independent thinking. ☐

#### III. Speaking, Listening and Viewing

##### A. Speaking and Listening:

**Benchmark 2**—The student will demonstrate active listening and comprehension. ●

Grades 3, 4

#### III. Speaking, Listening and Viewing

##### A. Speaking and Listening:

**Benchmark 3**—The student will follow multi-step oral directions. ☐

### History and Social Studies

Grade 4-8

#### V. Geography

##### D. Interconnections:

**Benchmark 2**—Students will analyze how the physical environment influences human activities. ●

### Science

Grade 4

#### I. History and Nature of Science

##### A. Scientific World View:

**Benchmark 1**—The student will explore the uses and effects of science in our interaction with the natural world. ☐

**Benchmark 2**—The student will discuss responsible use of science. ☐

**Benchmark 3**—The student will recognize the impact of scientific and technological activities on the natural world. ☐

## Environmental Literacy Scope and Sequence

### Benchmarks

- Social and natural systems are made of parts. (PreK-2)
- Social and natural systems may not continue to function if some of their parts are missing. (PreK-2)
- When the parts of social and natural systems are put together, they can do things they couldn't do by themselves. (PreK-2)
- In social and natural systems that consist of many parts, the parts usually influence one another. (3-5)
- Social and natural systems may not function as well if parts are missing, damaged, mismatched or misconnected. (3-5)

For the full Environmental Literacy Scope and Sequence, see:

[www.seek.state.mn.us/eemn\\_c.cfm](http://www.seek.state.mn.us/eemn_c.cfm)



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## Chapter 5 • Lesson 1

# Freshwater Rods and Reels

**Grade Level:** 3-5

**Activity Duration:** Part 1: 45 minutes

Part 2: 45 minutes

**Group Size:** any

**Subject Areas:** Language Arts, Social Studies, Science, Physical Education

**Academic Skills:** application, comparison, kinesthetic concept development, listening, observation

**Setting:** large indoor or outdoor open area

**Vocabulary:** bail, bait, baitcasting reel, cane pole, casting plug, closed-face reel, fly fishing reel, grip, jiggle stick, line guides, open-face reel, rod tip

**Internet Search Words:** fishing equipment, freshwater rods

## Instructor's Background Information

Approximately one-third of Minnesota's residents fish! ! One reason that angling is such a popular pastime is attributable to the state's diverse aquatic habitats, which provide many different kinds of fishing opportunities. You can fish for lake trout in the deep-water lakes of the northeast on one day, and go further inland to habitat more suited to fish like walleye the next. You can take your family fishing for bass and panfish, or head out to catch a few stream trout in the streams in the southeast or near the North Shore (Lake Superior region). If you don't mind staying up late, you might just catch a trophy catfish in the Minnesota River. And if you don't get enough of fishing in the spring, summer, and fall, you can head for a frozen lake, drill a hole in the ice, and drop a line.

It takes more than luck to catch fish. Taking time to learn how to match the correct equipment to fishing conditions ensures a more successful fishing trip. You also need some skill in using the equipment. It takes practice to accurately cast the lure or bait to the places where the fish are likely to be.

## Rods and Reels

With such diverse fishing opportunities, it isn't surprising that many Minnesotans have more than one type of fishing rig in their garage or basement. A rod and reel combination is referred to as a **combo, rig,** or **outfit**. Choosing a rod and reel depends on the size of fish you're angling for, where you're going fishing, and the size of the lure or bait you plan to use. Learning about some of the rigs and their basic uses will help you choose a rod and reel combo that best suits your needs.

## Summary

Fishing is a popular sport enjoyed by many Minnesotans. To join in a long tradition of fishing in Minnesota, you must become familiar with basic equipment and skills. In this lesson, students examine different types of freshwater rods and reels, learn the fishing conditions to which each is suited, and practice casting two types of fishing rigs.

## Student Objectives

The students will:

- 1 Match the fishing rig with the species and habitat to which it is best suited.
- 2 Demonstrate the ability to cast using two different fishing rigs.
- 3 Review rod and reel terms by drawing and labeling them and completing a crossword puzzle.



## Materials

### Part 1: Equipment Types

- **Freshwater Rods and Reels Sheet**, one per student
- **Freshwater Rods and Reels Crossword Sheet**, one per student
- **Fishing Rig Fill-in-the-blank Sheet**, one per student
- Pole and line
- Closed-face rod and reel combo
- Open-face rod and reel combo
- Baitcasting rod and reel combo
- Fly fishing rod and reel combo
- Ice fishing jiggle stick
- Pop can caster (See **Lesson 5:3—Pop Can Casting**)
- At least one adult presenter or helper with fishing experience (it's best if they bring their own equipment)
- Nature journal or science notebook for drawing different types of rods and reels
- Pencil or pen

### Part 2: Parts of a Rod and Reel and Casting

- Three closed-face rod and reel combos
- Three open-face rod and reel combos
- Six casting plugs (or a few more, in case some get stuck in trees)
- Six hula-hoops
- Six casting targets (buckets, additional hula-hoops, or other bright objects)
- Two or more adult helpers with casting experience

### Pole and Line

Who hasn't seen an old photograph of a youngster sitting on the end of a dock holding a cane pole? It's hard to find a **cane pole** in a store today, but they're easy to make. There's no reel—just a simple setup of a bamboo pole or wooden stick with line tied to the end. The pole is approximately eight feet long. These old-fashioned rigs work well for fishing near shore for panfish, and are a great way to introduce a child to fishing. You don't have to worry about casting and, without a reel mechanism holding lots of line, there will be fewer tangles.



See the Freshwater Rods and Reels Sheet for photos of each equipment type.

### Closed-face Rod and Reel Combos

The rods used with closed-face reels are about five feet long and have small line guides. The line is threaded through the **line guides**, small circles of steel with a ceramic coating, along the length of the rod. Line guides keep the line in place so it's less likely to tangle during a cast. The **closed-face reel** sits on top of the rod and has a push-button for releasing the line. Closed-face reels have a cover and are sometimes called push-button or spin-cast reels. This type of reel is simplest to learn to use—the line is less likely to tangle than with an open-face reel.

Closed-face rod and reel combos are very affordable. Ideal for beginners, they're often used to catch panfish, but they can also be used to fish for a variety of species in numerous fishing situations.

### Open-face Rod and Reel Combos

Rods with open-face reels are available in various lengths. They have a longer, straighter **grip** (the handle used to hold the rod) and larger-diameter line guides than rods with closed-face reels. The guides hang below the rod rather than on top of it because the open-face reel is situated underneath. The **open-face reel** has no cover, and is sometimes referred to as a spinning reel. The open reel and larger line guides release line more quickly, enabling the angler to cast further. This rig works well with lightweight lures.

The open-face reel has a wire **bail** that must be opened to release the line, and for casting. When closed, the bail holds the line inside the reel. The spool doesn't turn. Instead, the bail spins as it returns the line to the reel as the angler reels it in.

This type of reel is somewhat more complicated to learn to cast and more prone to tangling than a closed-face reel. Because heavy monofilament line springs off the open spool and tangles easily, this type of reel is better when using light line - about 4-10 pound test.



Open-face rod and reel combos work well for a wide variety of fish species and in a variety of fishing situations.

### Baitcasting Rod and Reel Combos

Like open-face rods, baitcasting rods have long grips, with smaller guides. The guides and reel sit on top, as on a closed-face rig. Baitcasting rods are usually stiffer than open-face rods. **Baitcasting reels** are open and often have a push-button that releases the line. The line comes off a spool that is horizontally oriented to the pole. These rods offer accurate casting because the angler can “thumb” the spool to stop the line and drop the lure on target. It’s important to test the lure drop to ensure that drag is set correctly for this type of reel. In both closed-face and open-face reels, the spool is fixed and parallel to the rod. The spool on the baitcasting reel is perpendicular to the rod and turns when the button is pushed. Baitcasting reels aren’t recommended for novice anglers who are learning to fish. The line can be easily tangled on these reels if the angler isn’t familiar with their proper use.

Baitcasting rigs are generally used for large fish or for fishing in deep water. They’re typically used with heavier line than open-face rods and reels. On this type of reel, the line is more likely to stay on the reel under stress.

### Fly fishing Rod and Reel Combos

Fly fishing rods are longer (usually seven and one-half to nine feet) and more flexible than other rods. The line guides and reel hang below the rod, but the **fly fishing reel** isn’t used in casting—it only stores the line. Instead, the rod, fly line, and a special casting technique take the light fly out onto the water. The special fly line, rather than a heavy lure, provides the casting weight to propel the tiny fly to its target.

Fly fishing differs from other types of fishing, requiring a little more time and practice to master. You can fly fish for almost any species, including panfish, bass, and trout.

### Ice Fishing Rods and Reels

Ice fishing rods are very short, because they don’t need to be cast to take the line a horizontal distance from the angler. The line is dropped straight down through a hole in the ice. Some ice fishing combos have reels, but these usually just store line. The line guides and reel typically hang below the rod. A **jiggle stick** is an ice fishing stick or pole without a reel. The line is wrapped around two pegs on the pole. Moving the stick up and down is called jigging, which entices fish to the bait.

For more information and pictures of ice fishing rods and reels, see **Lesson 5:7—Making Ice Fishing Jiggle Sticks.**



Ice fishing is inexpensive and good for beginners, but extra winter safety measures are critical such as dressing in layers and choosing a spot with the safest ice. (See **Lesson 6:2—Ice Fishing and Winter Safety.**)





**Hold the rod out in front, aiming for your target. Push and hold down the button, then look for obstacles above and behind you.**



**Bring the rod tip straight over your shoulder.**



**Bring the rod tip forward, aiming for your target. Release the button.**



Some students may want to do a side-arm cast. Although this is a valid technique, in a group situation, it isn't as safe as the recommended over-the-shoulder method described here.

### How to Cast a Closed-face Rod and Reel Combo

1. Demonstrate how the reel works. The **casting plug**, a weighted lure with no hook, should be attached to the line and hang about six inches from the end of the rod, or rod tip. Hold the grip with the reel on top. Using the same hand that holds the rod, push the button with your thumb and hold it in. Notice that nothing happens. Now release your thumb and watch how the line comes out and the casting plug drops. Pull some line out of the reel and notice how it keeps coming. Turn the reel handle forward and listen for a click. Now try to pull more line out. It shouldn't come out. Reel in the line.
2. Demonstrate an overhead cast. Hold the button in with your thumb. The rod should be straight in front of you. Make sure the line isn't wrapped around the top of the rod! *Remember to look over your shoulder to make sure no one is standing behind you when you cast; look overhead and behind you for any obstructions (such as power lines, tree branches, bushes, pets) before you cast.* Lift and bend your elbow to bring the rod tip back over your shoulder as you watch it. Then bring the rod tip forward over your shoulder again, watching it until you're pointing the rod to a point just above the horizon. Release your thumb as you bring the rod forward, and point the rod tip in the direction you want the casting plug to go. Watch as the casting plug takes the line straight out in front of you.
3. How far did the line go? If the line hits the ground right in front of you, you didn't release the button soon enough. If the casting plug took the line high in the air above you, you released the button too soon.
4. Try to get the casting plug to land right where you want it to go.

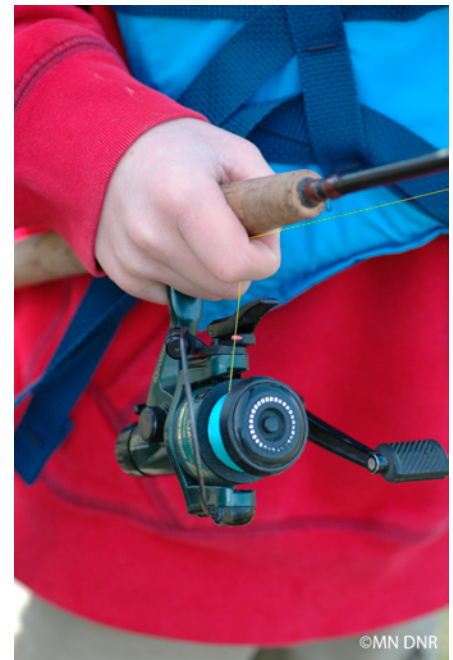


### How to Cast an Open-face Rod and Reel Combo

1. Demonstrate how the reel works. Hold the grip in your hand with the reel hanging below the rod. Place two fingers behind the reel seat, where the reel mounts to the rod, and two in front of the reel seat. Your thumb goes on top of the grip. Hold the line against the reel with the index finger of the same hand that holds the rod. The casting plug should hang about six inches from the rod tip.
2. With your other hand, flip open the bail from one side of the spool to the other. Let go of the line with your index finger and watch how the casting plug drops and how line falls easily off the spool. Turn the reel handle forward and watch the bail close or flip back in place to its original side. You can also close the bail by flipping it back with your hand. Now try to pull line out. It shouldn't come out easily. But if the line doesn't move with forced pulling, the drag is too tight.
3. Demonstrate an overhead cast. Flip open the bail. Use your finger to hold the line. After the forward motion, let go of the line with your finger. The rest of the procedure is the same as the closed-face rod and reel combo cast.



Remember to look over your shoulder to make sure no one is standing behind you when you cast; look overhead and behind you for any obstructions (such as power lines, tree branches, bushes, pets) before you cast.



**To cast with an open-face reel, open the bail and hold the line with your index finger.**



## Comparing Freshwater Rods and Reels

Combo	Grip	Rod Length	Line Guides	Reel	Habitat	Fish
<b>Pole and Line</b>	None	8 feet (wooden pole)	None	None	Near shore Shallow	Panfish
<b>Closed-face (or spin-cast)</b>	Short	5 feet	Small On top	Closed Push-button Has drag Sits on top of rod	Near shore Shallow (option: any)	Usually panfish (option: any)
<b>Open-face (or spinning)</b>	Long Straight	6 feet	Large On bottom	Open Has drag Hangs below rod	Any	Panfish Stream trout Larger game fish such as bass, walleye, northern pike
<b>Baitcasting</b>	Long	6 feet	Small On top	Open Push-button Has drag Sits on top of rod	Deep water	Larger game fish such as bass, walleye, northern pike, catfish
<b>Fly</b>	Long Straight	7½-9 feet	Large On bottom	Open Has no drag Doesn't assist cast Hangs below rod	Any	Panfish Stream trout Larger game fish such as bass, walleye, northern pike
<b>Jiggle stick</b>	None	1½ feet (wooden stick)	Small On bottom	None	Any, in winter	Panfish Larger game fish such as walleye and northern pike





## Procedure

### Preparation

- 1 Gather the listed materials or ask a fishing enthusiast to bring equipment to class and help demonstrate.
- 2 Make copies of the **Freshwater Rods and Reels Sheet**, the **Freshwater Rods and Reels Crossword Sheet**, and the **Fishing Rig Fill-in-the-blank Sheet**.
- 3 Set up the gymnasium or large open area for casting practice. Place six hula-hoops on one end of the field and the six casting targets at the other end, about twenty feet away. (If it's windy outdoors, it will be easier to cast with the wind.)
- 4 Tie casting plugs on the rod and reel combos to be used for casting practice.
- 5 Place a rig near each hula-hoop. Alternate closed-face rod and reel combos with open-face combos.



## Activity

### Warm-up

- 1 Ask the students to raise their hands if they've ever been fishing. Where in Minnesota did they go fishing? What did they fish for? Were they on a small lake, large lake, stream, or river? What type of rod and reel did they use?
- 2 Tell the students that there are many different types of fishing and special equipment is used for each type of aquatic habitat they might fish in, and for the different types of fish they want to catch.

### Lesson

#### Part 1: Equipment Types

- 1 Distribute a **Freshwater Rods and Reels Sheet** to each student. Go through the sheet and show examples of each type of rod and reel you've collected. Describe the situation in which each is used. (Use the **Comparing Freshwater Rods and Reels** chart for easy reference. Don't worry if you can't find every type of rod—just collect a few to compare. If possible, ask a fishing enthusiast to bring their gear to class and explain how they use it.)
- 2 Demonstrate or ask students to help you point out similarities and differences between the various rigs.
- 3 Have students draw and label the various types of rods and reels in a nature journal or science notebook.

#### Part 2: Parts of a Rod and Reel and Casting

- 1 Review the basic parts of a rod and reel combo with your students. Cover grip, rod tip, reel, and line guides. (For an example, see the **Parts of a Closed-face Rod and Reel Combo Answer Sheet** in **Lesson 5:2—Casting a Closed-faced Rod & Reel Combo**.)
- 2 Demonstrate how to cast both the closed- and open-face rod and reel combos.



- 3 Separate the students into six groups. Have the first person in each group stand in the hula-hoop. Explain that the casting targets represent areas of cover where fish might be: near lily pads, under a dock, in a brush pile, in a drop-off or hole, for example. Emphasize that casting is not about who can cast the furthest, but casting *accurately* to the spot where the fish are, whether fishing from a boat, from shore, or from a pier or dock.
- 4 Have each student practice casting each type of rig three times by rotating through two of the lines. Post an adult between casting stations to help with technique and to loosen any tangles.
- 5 Option: After all students try casting each type of rig, set up a casting contest. Form three teams. Have each team choose different people to cast each type of rig. Tell the students that they will be evaluated on team spirit, good sportsmanship, and casting accuracy.

### Wrap-up

- 1 Hand out the **Fishing Rig Fill-in-the-blank Sheets**. Have students match the fishing rig to the type of fish it's designed to catch and to the habitat to which the rig is suited.
- 2 Ask the students the following questions. Which combo was easiest to use? Which was most difficult? Which allowed more accuracy? Which allowed the furthest casts? Was anyone surprised at how easy or difficult it was to cast? What could you do to improve your casting skills? (Practice!)
- 3 Pass out the **Freshwater Rods and Reels Crossword Sheet** and have the students fill in the missing words.

### Assessment Options

- 1 Observe participation in the discussion and casting practice. Collect the **Freshwater Rods and Reels Crossword Sheet** and the **Fishing Rig Fill-in-the-blank Sheets**.
- 2 Evaluate the students' drawings of the equipment. Note that drawings are accurate and correctly labeled.
- 3 If you asked a fishing enthusiast to demonstrate equipment in class, have students write thank-you letters to the volunteer, referring to what they learned about the different types of equipment. Collect and assess the letters before sending them to the volunteer.
- 4 Assessment options include the Checklist and Rubric on the following pages.



## Freshwater Rods and Reels Checklist

Possible Points	Points Earned	Points Earned	
	Student	Instructor	
4	_____	_____	Student completely and correctly fills out the <b>Freshwater Rods and Reels Crossword Sheet</b>
4	_____	_____	Student completely and correctly fills out the <b>Fishing Rig Fill-in-the-blank Sheet</b> .
3	_____	_____	Student can identify three types of fishing rigs.
3	_____	_____	Student can identify two types of fish typically caught on each of the three rigs.
3	_____	_____	Student can identify the type of water habitat where each of the three rigs is most commonly used.
4	_____	_____	Student understands how to operate two kinds of rod and reel fishing rigs.
4	_____	_____	Student follows safety procedures for handling rod and for casting with two types of rigs.
4	_____	_____	Student casts accurately with two types of rigs.
<b>Total Points</b>			
<b>29</b>	_____	_____	<b>Score</b> _____

Checklists are tools for students and instructors. Checklists involve students in managing their own learning. They help students understand and set learning goals before the lesson begins, and help them monitor their progress during the lesson, ensuring that they meet learning goals and objectives by the end of the lesson. Students can also use checklists to discover areas that may need improvement. Checklists help instructors monitor each student's progress throughout the lesson, facilitating appropriate adjustment of instruction to ensure learning by the end of the lesson. The instructor may wish to have students add several of their own learning goals to the checklist to personalize it, and to accommodate varied learning needs and styles.

### Grade

#### 27-29 points = A

Excellent. Work is above expectations.

#### 23-26 points = B

Good. Work meets expectations.

#### 18-22 points = C

Work is generally good. Some areas are better developed than others.

#### 13-17 points = D

Work does not meet expectations; it's not clear that student understands objectives.

#### 0-12 points = F

Work is unacceptable.



## Freshwater Rods and Reels Scoring Rubric

Criteria	<b>4</b> Excellent	<b>3</b> Good	<b>2</b> Fair	<b>1</b> Poor	<b>0</b> Unacceptable
<b>Freshwater rods and reels crossword</b>	All of the crossword puzzle is filled in correctly.	80 % of the crossword puzzle is filled in correctly.	Half of the crossword puzzle is filled in correctly.	Less than half of the crossword puzzle is correct.	Doesn't complete the crossword puzzle.
<b>Fishing rig Fill-in-the-blank</b>	The sheet is complete and correct.	80% of the sheet is completed correctly.	Half of the sheet is completed correctly.	Less than half of sheet is correct.	Doesn't complete the sheet.
<b>Matching rod and reel type to type of fishing</b>	Can identify three types of fishing rigs and the types of fish typically caught on each of the rigs.	Can identify two types of fishing rigs and the types of fish typically caught on each of the rigs.	Can identify two types of fishing rigs and one type of fish typically caught on the rigs.	Can identify one type of fishing rig and one type of fish typically caught on the rig.	Can't correctly identify any type of fishing rig.
<b>Practice casting</b>	Understands how to operate two kinds of rod and reel combos. Follows safety procedures, for handling rod and for casting. Casts accurately.	Understands how to operate two kinds of rod and reel combos. Follows safety procedures, for handling rod and for casting. Casts accurately some of the time.	Understands how to operate one kind of rod and reel combo. Remembers to follow safety procedures most of the time.	Understands how to operate one type of rod and reel combo, but can't cast safely or with accuracy.	Doesn't understand how to operate rod and reel combo for casting.

Score \_\_\_\_\_ (Calculate score by dividing total points by number of criteria.)



## Diving Deeper

### Extensions

- 1 Ask guest speakers to bring their fishing equipment to class and explain how they use it. (Guest speaker possibilities include parents, grandparents, seniors, local fishing professionals, tackle store employees, or other fishing enthusiasts.)
- 2 Ask guest speakers to demonstrate how they fish for their favorite species.
- 3 Ask a guest speaker to demonstrate casting a baitcasting rig or a fly rod.
- 4 Ask students to bring in their own fishing rig and explain how they've used it.
- 5 Take your class on a fishing trip. See **Lesson 6:3—Planning a Fishing Trip**.

## For the Small Fry

### K-2 Option

- 1 Discuss the differences between summer and winter fishing. Show a closed-face rod and reel combo and a jiggle stick.



- 2 Teach the students to cast the closed-face rig. Use casting plugs instead of hooks. Arrange an adult/student ratio of one to one, or allow one student to cast at a time. Make sure that adults remain with the student casters at all times. Cast in an open area such as a gym or playing field. You can mark standing spaces for the students using hula-hoops or rope. Casting stations should be two pole lengths apart.



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## Freshwater Rods and Reels Sheet

### Pole and Line

**Grip:** None

**Rod Length:** 8 feet (wooden pole)

**Line Guides:** None

**Reel:** None

**Habitat:** Near shore, shallow

**Fish:** Panfish



### Closed-face Reel (or Spin-cast Reel)

**Grip:** Short

**Rod Length:** 5 feet

**Line Guides:** Small, on top

**Reel:** Closed, push-button, has drag, sits on top of rod

**Habitat:** Near shore, shallow (could be any)

**Fish:** Usually panfish (but any)



### Open-face Reel (or Spinning Reel)

**Grip:** Long, straight

**Rod Length:** 6 feet

**Line Guides:** Large, on bottom

**Bail:** Metal wire-like device to control release of line

**Reel:** Open, has drag, hangs below rod

**Habitat:** Any

**Fish:** Panfish, stream trout, larger game fish such as bass, walleye, and northern pike





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## Freshwater Rods and Reels Sheet

**Baitcasting Reel****Grip:** Long**Rod Length:** 6 feet**Line Guides:** Small, on top**Reel:** Open, push-button, has drag, sits on top of rod**Habitat:** Deep water**Fish:** Larger game fish such as bass, walleye, northern pike, and catfish**Fly Reel****Grip:** Long, straight**Rod Length:** 7½-9 feet**Line Guides:** Large, on bottom**Reel:** Open, has no drag, doesn't assist cast, hangs below rod**Habitat:** Any**Fish:** Panfish, stream trout, larger game fish such as bass, walleye, and northern pike**Jiggle Stick****Grip:** None**Rod Length:** 1½ feet (wooden stick)**Line Guides:** Small, on bottom**Reel:** None**Habitat:** Any, in winter**Fish:** Panfish and larger game fish such as walleye and northern pike



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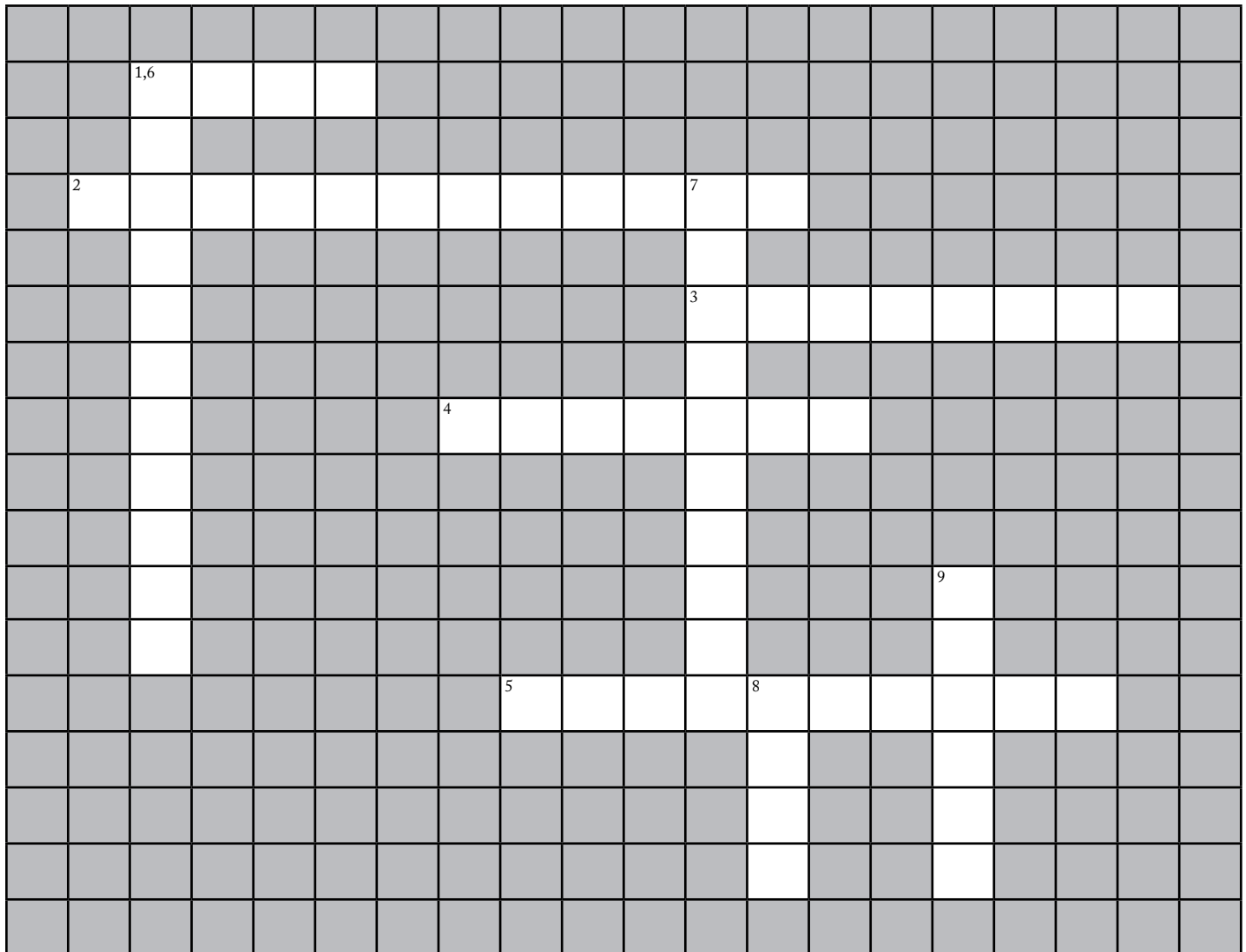
*Freshwater Rods and Reels Crossword Sheet*

## ACROSS

1. Metal wire-like device that controls release of line from the reel
2. Used in ice fishing
3. There is no cover on this type of reel
4. Holds the line on a very long flexible rod
5. Holes through which the line feeds

## DOWN

6. Used to catch big fish or fish in deep water
7. This reel has a button to push
8. The place you hold the rod
9. A casting plug or lure should hang about six inches from this before you try to cast



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**INSTRUCTOR COPY***Freshwater Rods and Reels Crossword Answer Sheet***ACROSS**

1. Metal wire-like device that controls release of line from the reel (**bail**)
2. Used in ice fishing (**jiggle stick**)
3. There is no cover on this type of reel (**open face**)
4. Holds the line on a very long flexible rod (**fly reel**)
5. Holes through which the line feeds (**line guides**)

**DOWN**

6. Used to catch big fish or fish in deep water (**baitcasting**)
7. This reel has a button to push (**closed face**)
8. The place you hold the rod (**grip**)
9. A casting plug or lure should hang about six inches from this before you try to cast (**rod tip**)

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Name \_\_\_\_\_ Date \_\_\_\_\_

*Fishing Rig Fill-in-the-blank Sheet*

Fill in the chart by matching each fishing rig to the type of fish it's designed to catch *and* to the type of habitat where you would use the fishing rig. There can be more than one answer for the types of fish. See the **Freshwater Rods and Reels Sheet** for pictures of the fishing rigs.

Fish		
 <p><b>Panfish</b> (bluegills, perch, and crappies)</p>	 <p><b>Deep-water fish</b> (lake trout and salmon)</p>	 <p><b>Larger game fish</b> (walleye and northern pike)</p>




Habitats				
Lakes and streams	Deep-water (like Lake Superior)	Through the ice	Shallow water near shore	Any

Fishing Rig	Fish	Habitat
Pole and line (cane pole)		
Baitcasting rod and reel combo		
Jiggle stick		
Open-face rod and reel combo		
Fly rod and reel combo		
Closed-face rod and reel combo		



**INSTRUCTOR COPY***Fishing Rig Fill-in-the-blank Answer Sheet*

Fill in the chart by matching each fishing rig to the type of fish it's designed to catch *and* to the type of habitat where you would use the fishing rig. There can be more than one answer for the types of fish. See the **Freshwater Rods and Reels Sheet** for pictures of the fishing rigs.

Fish		
		
<b>Panfish</b> (bluegills, perch, and crappies)	<b>Deep-water fish</b> (lake trout and salmon)	<b>Larger game fish</b> (walleye and northern pike)

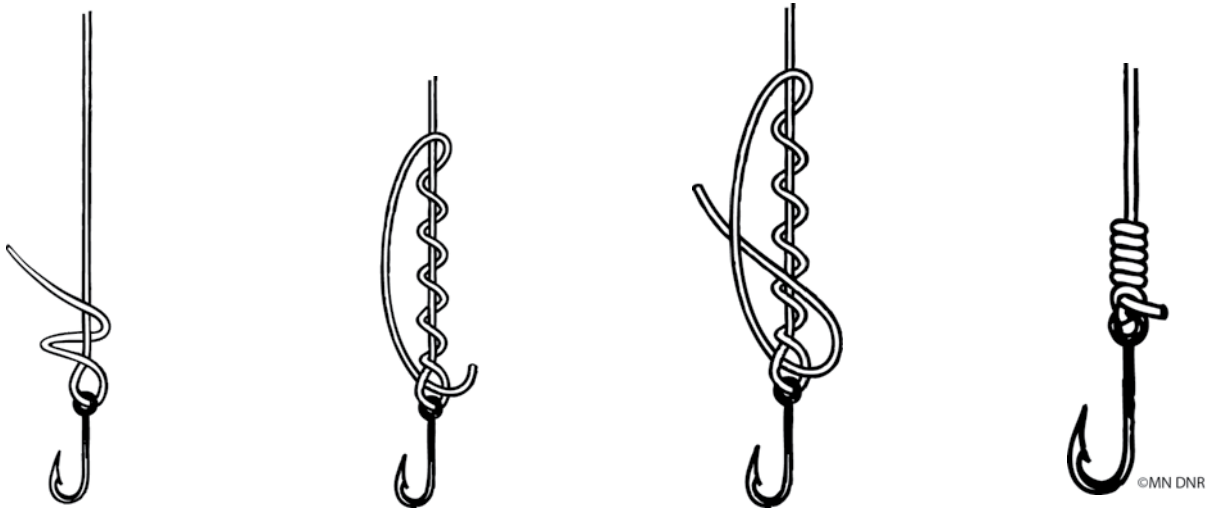
Habitats				
<b>Lakes and streams</b>	<b>Deep-water (like Lake Superior)</b>	<b>Through the ice</b>	<b>Shallow water near shore</b>	<b>Any</b>

Fishing Rig	Fish	Habitat
<b>Pole and line (cane pole)</b>	Panfish	Shallow water near shore
<b>Baitcasting rod and reel combo</b>	Larger game fish Deep-water fish	Deep water
<b>Jiggle stick</b>	Panfish Larger game fish	Through the ice
<b>Open-face rod and reel combo</b>	Panfish Larger game fish	Shallow water near shore/any
<b>Fly rod and reel combo</b>	Panfish Larger game fish	Any
<b>Closed-face rod and reel combo</b>	Panfish Larger game fish	Any



**STUDENT COPY***Tying an Improved Clinch Knot Sheet*

The clinch knot is probably the most popular fishing knot used today. When properly tied, the clinch knot is very strong and it won't slip. This is a versatile fishing knot, and it can also be used to attach lures to your fishing line.



1. Thread one end of the line through the eye of the hook.
2. Wrap the line around itself five times to make five twists. Fishing tackle manufacturers have found that five wraps of the line work best. With fewer than five wraps, fish might pull out the knot. With more than five wraps, the line may break.
3. Take the tag (loose) end of the line and put it through the first twist, near the hook.
4. Notice the new loop you have made. Take the same tag end and pass it through the new loop. (This is the “improved” part of the knot that prevents it from slipping.)
5. Drop this end.
6. Slide the whole knot down to the hook.
7. Gently tug on the end you previously dropped.
8. Neaten the knot. It's important to make sure the knot is “neat,” or that the coils are tightly lined up. If there are loose wraps, or wraps on both sides of the eye, the knot may snag and break.
9. Voila! There should be neatly stacked coils lined up next to the eye.