

# Casting for Backyard Bass

Grade Level(s): 3rd and up  
Time: 15 - 20 minutes  
Group Size: 20 - 25  
Setting: Outdoors; or Indoors (gym)

## NYS Learning Standards Core Curriculum MST

Standard 4: Living Environment  
Students will: understand and apply scientific concepts, principles, and theories pertaining to the physical setting and living environment and recognize the historical development of ideas in science.

- *Key Idea 7:* Human decisions and activities have had a profound impact on the physical and living environment.

## Summary

Fishing is an exciting time that can be shared with family, friends, or alone. When you fish, it is important to know about the type fish, the fishing pole, and reel you are using. Where you fish, what type of water you fish in, and what fish species you are targeting will dictate how you fish and with which equipment. In this lesson, students will play a game in order to learn how to properly cast a fishing rod. Students will be shown different rod types and fishing tackle.

## Key Words

Rod, reel, bobber, casting, sinker, hook, bail, camouflage, slime, casting, bait, anatomical features.

## Materials

- Freshwater fish species pictures or fish mounts
- 2-3 fishing rods with plugs/weights
- Backyard Bass plastic fish
- Fishing rod with hook and bobber, sinker (optional)
- 2-3 hula hoops (optional)



*Illustration by Duane Raver*

## Objective

The lesson objective is to introduce students to the fun activity of fishing; have them learn some basic fishing techniques, terminology, and ultimately knowing how to cast a fishing rod accurately and safely.

After this presentation, students will be able to:

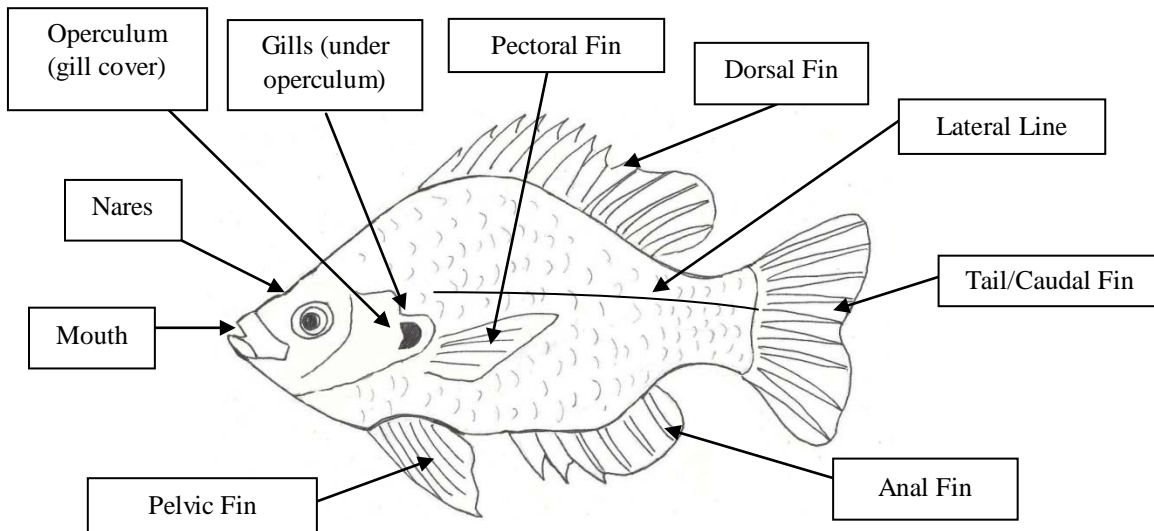
- Cast a fishing rod by themselves
- Understand the safety and proper technique for casting a fishing rod

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- Understand some basic differences & techniques when fishing saltwater or freshwater.

## Vocabulary

- **Bait** – artificial or live animals such as worms, flies, or fish can be used to attract the targeted species.
- **Bobber** – the float attached to the line to help indicate if a fish is hooked.
- **Camouflage** – The ability to blend in with the background or habitat.
- **Casting** – the act of rod movement and reel-release in order to place hook & bait in desired spot.
- **Hook** – barbed metal bent backwards, baited with live or artificial bait.  
Sizes vary according to desired fish to catch.
- **Reel** – the spool of line attached to the rod; many varieties.
- **Rod** – the fishing pole; which can be designed for saltwater or freshwater, gamefish or small panfish, ocean or stream.
- **Sinker** – a weight used to take bait & hook toward bottom of water body.
- **Tackle** – the gear and equipment used to go fishing.



## Background

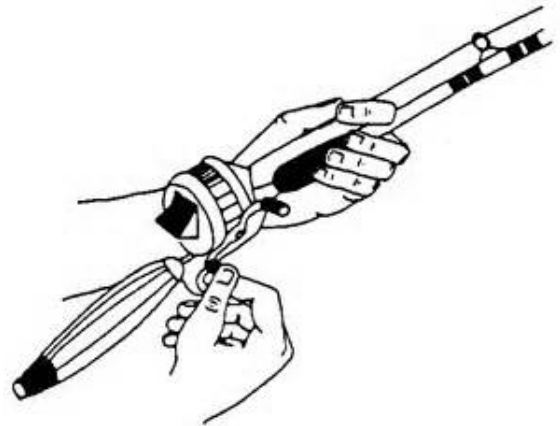
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### Types of Fishing Reels

There are four types of fishing reels: spincasting, spinning, baitcasting, and conventional. (A fifth type of reel known as a fly-fishing reel is not addressed in this lesson). Baitcasting and conventional are sophisticated reels, and are not often used with beginners. For this lesson, we will focus on spincasting and spinning reels.

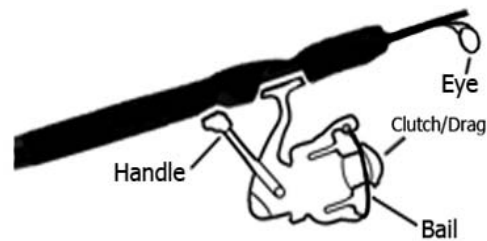
#### *Spincasting*

In spincasting, the reel is enclosed in housing. Because this type of reel reduces the number of line tangles, it is best suited for beginners fishing in freshwater. The reel sits on the top of the rod facing you with the guides facing up at you as well. To release the line, you press and release the push button located at the back of the reel (closest to you). To wind the line back in, you turn the handle away from you.



#### *Spinning Reels*

Spinning reels have no housings and are open. They are used in both fresh and saltwater. The spinning reel should be on the downside of the rod, facing the ground as should the guides. The line is released by flipping up the bail (thin silver U-shaped bar) on the front of the reel. You must pinch the line against the rod handle with your finger before flipping up the bail. Line is wound-up by turning the reel handle, again away from you. Right-handed anglers will reel in using the handle on the left side. Spinning reels are the most common type of reel, and used by all skill levels, from strong beginners to advanced anglers.



### Tackle

When fishing with beginners, fishing with bait is ideal. Bobbers, sinkers, and hooks are the main pieces of fishing tackle needed.

#### *Bobbers and Floats*

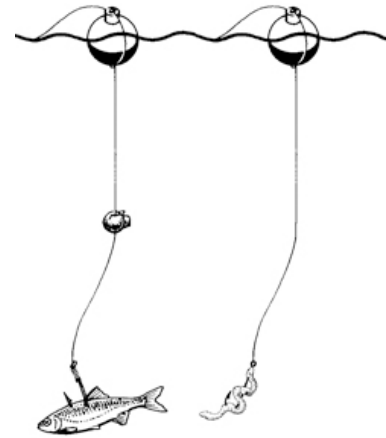
Bobbers, or floats, are designed to keep the bait suspended above the bottom, or away from weeds and other obstructions. You can change the length of fishing line in the water by moving the bobber up or down along the line. Bobbers indicate when a fish is striking. If the bobber is moving up and down (bobbing) in the water, it means that you have a bite.

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## *Sinkers*

The main purpose of sinkers is to add weight to the line. Sinkers are used for bottom-fishing, or to get your bait further out into the water. Small sinkers used to be made of lead, which is toxic to animals if swallowed, for example birds. Today, small sinkers are now made of non-toxic materials so as not to harm wildlife if eaten. Large sinkers are still made of lead, but they are large enough that wildlife are unlikely to eat them.



## *Hooks*

Hooks are extremely important when fishing. Circle hooks are shaped like “C”s with tips turned perpendicularly back towards the shank. They are designed to only hook on exposed surfaces such as a fish’s mouth. If a fish swallows your circle hook, as you reel in, the hook will pull out (versus a regular hook, which could be caught in the fish’s gut). Tamping down the barb (pinching it with pliers) will also help to safely and quickly release a fish.

## **Casting**

It is important to be aware of your surroundings when casting. Before casting, survey the area to see if there are any plants, trees or shrubs that your line can snag your line. It is also important to be aware of people nearby, and to respect their space.

## *Using a Spincasting Reel*

When using a spincasting reel, push and hold the button all the way down. Look behind you for obstructions, people, and anything that could snag your line. To cast, slowly bring your hand up just about your shoulder. The pole should be pointing back over your shoulder so it is between vertical and horizontal to the ground. As the pole is smoothly brought forward, release the button as the rod passes the vertical position. Be sure to not bring the tip of the fishing pole in contact with the ground on your follow-through. After the bobber and hook are in the water, rotate the handle one full circle to lock the line.

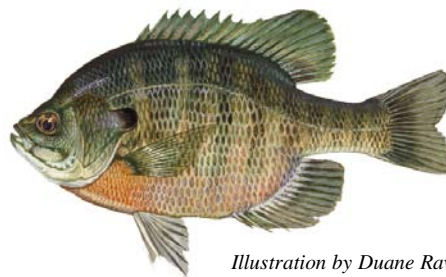


## *Using a Spinning Reel*

When using a spinning reel, pinch the line against the rod with 1 or 2 fingers and open the “U-shaped” bail. Look behind you. Bring the pole back over your shoulder as with a spincasting reel. As you bring the pole forward, release your finger(s) as the rod passes the vertical. Be sure to not bring the tip of the fishing pole in contact with the ground. After the bobber and hook are in the water, rotate the handle one full circle to lock the line; this should automatically close the bail. (Tip: If bail does not close automatically, close or flip it manually.)

## *Casting Tip*

With either type of reel, it is not necessary to continually “cast and reel” numerous times, as the fish need to be able to smell and see your bait before they bite. Be sure to reel in any slack in the line, getting rid of any “curly cues”. Remember fishing is about patience, so sit back, relax, and enjoy!



*Illustration by Duane Raver*

## Main Activity

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### Set up Casting Field

1. Set up two casting fields with equal number of plastic Backyard Bass.
  - a. Pick an open area.
  - b. Be wary of trees or other objects participants can snag.
2. Use hula-hoops as markers for participants to stand in while casting (optional).

### Fish Identification and Overview

1. The instructor will go over a few local fish species using fish mounts or laminated photos. As each fish species is discussed, different external anatomical features and the function of these features will be introduced.

### Casting to Backyard Bass

1. Introduce the proper use of a fishing rod. For example, while using a spincasting rod, demonstrate the following:
  - a. Thumb on the button – sinker & “hook” don’t move
  - b. Take thumb off the button – sinker and hook are released and move freely
  - c. One turn of the handle locks the fishing line
  - d. Don’t reel in all the way; so the sinker doesn’t get stuck in the top guide
2. Explain casting to the Backyard Bass.
  - a. Use 2-3 poles to cast into fishing area
  - b. Demonstrate how to stand and cast with fishing rod
    - i. Press and hold button
    - ii. Look behind you
    - iii. Bring rod back to just past vertical position
    - iv. Cast; take finger off of button as rod is moving forward
    - v. Turn rod handle to lock line
3. Debrief casting; review steps.

If proceeding to fishing on site:

- a. Introduce rod safety with real hook and bobber.

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- b. If using a spinning reel, hold the rod with one hand and a 2-finger pinch on leader line with the other hand.
- c. Always walk with rod in one hand and line in the other; for example when:
  - i. Need new bait
  - ii. Need new rod
  - iii. Finished fishing
  - iv. Moving fishing spots
- d. No running when carrying fishing rod.
- e. During the game, cast and retrieve; when fishing with bobber set up, cast and wait for fish to bite.
  - i. Will know by bobber going under water
  - ii. One can hold line in fingers as another way to “know” that fish is biting

## Closing

1. Reminders:
  - a. Proper way to cast
  - b. Safety techniques for walking with a fishing pole
2. Invite questions.

## Wrap Up

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### Review

Remind students of the proper way to cast a fishing rod and the safety techniques for walking with a fishing pole

Students should be able to:

- Identify 1-3 species of fish specific to fishing area
- Demonstrate how to safely and properly cast a fishing rod
- Identify and use the proper terminology for fishing tackle.

### Questions for Discussion

Q: How would you define a predator?

A: A fish (animal) that pursues another animal to eat it for food

Q: How would you define a prey?

A: A fish (animal) that is being pursued as food for another animal

Q: What are some characteristics of prey species that help them escape from predators?

A: Schooling, fast moving, spiny dorsal fin, camouflage

Q: What are some characteristics of predator species that help them catch prey?

A: Camouflage, fast moving, sharp teeth, lying in wait

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Q: What does a bluefish eat?

A: Smaller fish such as, herring, anchovies, shrimp, croakers, krill, crabs, squid, and marine worms.

Q: What is structure and how do fish use it to escape predators?

A: Structure is a place to hide and find protection, such as reefs, pilings, logs, grasses. Small fish may find a hole or thick grass to nestle in, or go under a log

Q: Name a prey species that you might catch today (site specific)

A: examples may be small sunfish or small seabass

Q: Name a predator species that you might catch today (site specific)

A: examples may be large flounder or large pickerel

## Web Resources

*“Getting Started: A Beginner’s Guide to Freshwater Fishing”*. New York State Department of Environmental Conservation publication. Contact your local DEC Regional Office

New York State Department of Environmental Conservation fishing websites:

<http://www.dec.ny.gov/outdoor/fishing.html> - information and literature for purchasing licenses, fishing regulations, places to fish, fish stocking sites, and fishery reports.

<http://www.dec.ny.gov/outdoor/44809.html> - an excellent “how to” and “where to” fish guide for beginners and intermediate fishermen.