SECTION B
Field Knowledge—Making the Catch

It's finally time to go in for the catch! How will you know where to fish, how to get the fish out of the water, and what to do with it once you've caught it? Read on! Remember: It is up to you to be respectful and to be safe. No one else will make decisions for you.

SECTION B
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Reading the Water

OBJECTIVES: Students will be able to:

- explain why fish are not evenly distributed throughout a waterbody
- describe the habitat preferences of at least one species of fish

METHOD: Students will profile a fish and share their research with others. Students will use a lake map to discuss possible fish locations.

MATERIALS:

1) Local lake chart showing underwater topography or a whiteboard
2) Fish reference books or Internet access

See Appendix A for a list of Wisconsin's Game Fish to use in Profile of a Swimmer.

SETTING: Indoors

DURATION: Two 45-minute class periods

VOCABULARY: Navigable, riparian

STANDARDS:
Physical Education: D 8.3, 12.1, 12.2; F 8.2, 12.1. Science: C.8.1, 8.2, 12.4.

BACKGROUND: Like humans, fish have preferred habitats. An angler fishing in shallow, warm water, for example, is much more likely to catch a bullhead than a salmon. An angler's chance of success is increased by knowing the habitat and temperature preferences of her target fish and matching them to the underwater topography of the lake. For more information on fish habitat, refer to Chapter 2 in *Hook, Line, & Thinker: Science Guide*.

OPENING: Have students read **Reading the Water**. Assign a different game fish to each student in the class. Give the students in-class or at-home time to research the fish and fill in Profile of a Swimmer on the inside cover of the booklet.

MAIN ACTIVITY: If possible, get a map of the location where you will be fishing or draw a basic outline of the lake or river on the board. Have students take turns sharing information on their profiled fish and marking the most likely location of the fish on the map. Discuss how to adjust tackle to accommodate different underwater hazards. For example, use weedless lures around weeds, slipfloats and split-shot or leadless alternative to fish along drop-offs or in deep water. When all presentations are complete, put all student profiles into a binder to take as a reference guide on the fishing trip.

CLOSING: Review with students what they need to do to prepare for their upcoming fishing trip and have them read the next two lessons, **Fish Out of Water** and **Cooking, Cleaning and Companions** before heading out.

ASSESSMENT QUESTION: Name three places you are most likely to find a diversity of fish when fishing in a stream, two places to look for fish in a lake, and one species you are likely to find in cold, deep, open water.

ANSWERS: Stream: out of the current, deep pools, undercut banks, behind logs or rocks. Lake: weed beds, rocky points, under culverts. Open water species: salmon, lake trout.

EXTENSION:

In Depth: Invite a fishing guide in to describe how he or she "reads the water."

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

5

Reading the Water

You can read a book and you can read your friend like a book, but can you read the water? Perhaps you have a favorite place that you know very well. It's a place that you feel comfortable in—you know where it is busy, where it is quiet, where to get snacks, and where you can find your friends. Like humans, fish have favorite spots where they regularly spend time. Knowing a fish's habits and being observant about water conditions can help you find your target in the water.

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Productive Water?

Informed anglers know that predator fish (most game species) need prey. When you first approach a waterway, take a look around. Can you see enough aquatic plants, the right assortment of insects, and minnows or other small fish to support your desired catch? If you overturn rocks on the shore of a lake and spot crayfish, you can be almost certain that there are bass in the lake. If you peer into the shallows and find tadpoles, however, there are likely few bass, since they would have eaten the tadpoles if they were around. Keep an eye out for the food sources of the fish you hope to catch. Chances are, if you can find the food, you can find the fish.

How fish find food is also important. Those that ambush their prey will usually be close to some type of cover or will use their natural camouflage to help them blend into their habitat. Know your fish's favorite haunts, like weeds for the muskellunge, and where fish will blend in with their surroundings.

Water that is stinky, stagnant, blanketed in algae, visibly polluted, empty of small fish, or shows other signs of being unlivable will probably not be the best place to cast your line. Be observant! The more you fish, the more you will learn.

Wisconsin Waters—Keep Your Feet Wet

Where can you fish in Wisconsin? Anywhere you can legally gain access to the water! All navigable water (water you can float a canoe, skiff, or kayak down during any time of the year on a recurring basis) is held in trust (protected) by the State of Wisconsin for all Wisconsin citizens, including anglers. If you keep your feet in navigable waters, you have the right to be there, regardless if it is a stream or a lake! You may exit the water to portage around an obstruction, water too shallow to boat, or water too deep to wade, but by the shortest route possible. Still, be considerate of riparian landowners when choosing your fishing hole and exercising your water rights.

INSTRUCTORS: Underlined content is not provided in student manual.

See underwater using radar or another imaging technique to actually mark the location of a fish.

Yoo-Hoo, Fish?

Knowing how and where to find fish is a valuable skill that helps you connect to the world around you. But if you want a little backup to help you find the big one, there are all kinds of electronic gadgets, like fish finders, to help you do so. What can a fish finder do that you can't?

Fever or Chills?

As long as a waterbody has sufficient oxygen, water temperature is the most important factor in determining where a fish will be. Even within a body of water, a slight temperature variation can affect the location of fish. Know what temperatures your fish species likes and seek out spots that meet the fish's requirements.

Look for areas that are a degree or two warmer in cool weather, such as a shallow bay in early summer, or a degree or two cooler in warm weather, such as a shaded bank. Fish are extremely sensitive and react to even the smallest of differences in temperature.

FISH SPECIES	PREFERRED TEMPERATURE °F										
	40	45	50	55	60	65	70	75	80	85	90
Catfish										XX	??
Bullhead								XX	XX	XX	
Sunfish							XX	XX	XX		
Largemouth Bass						XX	XX	XX			
Muskellunge					XX	XX	XX	XX			
Chinook Salmon		XX	XX	XX							
Lake Trout	XX	XX	XX								

Moon Sense

During the new moon it is very dark at night. Fish do not feed as much in the darkness, which leaves them hungrier during the day. Take advantage of it! During a full moon, some fish will feed all night. Perhaps a night fishing trip is in order?

Stay Current

In general, fish position themselves so that they don't have to constantly battle a stream or river current. This is particularly true for trout and salmon. Deep pools are important holding areas for game fish, as are undercut banks. Undercut banks provide depth, calm water, shade, and occasionally back currents that deliver food right to a fish's mouth. Look for logs, rocks, sandbars, and other natural and artificial structures that break the current. Where there is shelter, there are fish.

Lakes and ponds don't have currents, but there are still predictable places to look for fish. Most Wisconsin lakes are moderately to very fertile. They are shallow and warm enough in summer to host aquatic vegetation and plankton. Most fish caught in lakes and ponds are found around structures or cover. In weed beds, near rocky points, and under culverts are all good places to look for fish. Open water is only suitable habitat for a few species of fish. Can you name one?

Lake Trout, Salmon

Notes