

## LESSON 7: FISH REQUIREMENTS

### Grade-Level Outcomes

#### Primary Outcomes

**Movement concepts, principles & knowledge:** Applies the terminology associated with exercise and participation in selected individual-performance activities, dance, net/wall games, target games, aquatics and/or outdoor pursuits appropriately. (S2.H1.L1)

**Lifetime activities:** Demonstrates competency and/or refines activity-specific movement skills in 2 or more lifetime activities (outdoor pursuits, individual-performance activities, aquatics, net/wall games or target games). (S1.H1.L1)

**Physical activity knowledge:** Evaluates—according to their benefits, social support network and participation requirements—activities that can be pursued in the local environment. (S3.H4.L1)

#### Embedded Outcomes

**Health:** Analyzes the health benefits of a self-selected physical activity. (S5.H1.L1)

**Self-expression & enjoyment:** Selects and participates in physical activities or dance that meet the need for self-expression and enjoyment. (S5.H3.L1)

### Lesson Objectives

The learner will:

- identify where fish are found in both lotic and lentic water environments.
- identify all local fish species.
- identify three common invertebrates.
- refine casting skills to a target.
- discuss the benefits of fly fishing in a physically active lifestyle.

### Equipment and Materials

- Fly rods
- Fly reels
- Cones
- Bug targets
- Fish targets
- Assessment handout

### Introduction

*What do fish need to survive? Why is that important to know as a fly fisher? We will make that connection in this lesson. We'll also talk about how fly fishing contributes to a physically active lifestyle.*

Today's casting lesson presents an opportunity for students to demonstrate knowledge of macro invertebrates and their life cycles, as well as local fish species.

## Instructional Task: What Fish Need to Survive

### ■ PRACTICE TASK

Introduce what fish need to survive with several PowerPoint slides and the fish requirements handout.

#### Key Concepts

- Food
- Shelter
- Oxygen
- Lotic and lentic ecosystems (compare and contrast)

**Guiding questions for students:**

- What do we need to survive?
- How can we apply what we know about ourselves to what fish need to survive?
- Compare and contrast the needs of fish and humans.

**Extension**

Make a trip to a pond or water source on campus and have students identify in a drawing as many of the available survival needs as possible.

**Student Choices/Differentiation**

Provide a handout on ecosystem concepts to support student learning.

**What to Look For**

- Students are engaged.
- Students are contributing to the discussion.
- Students are able to identify differences in the ecosystems.

## Instructional Task: Bug and Fish Assessment

**■ PRACTICE TASK**

Students make 20 casts to laminated picture targets of local fish species and their food sources. When they hit a target, they must identify the fish or insect correctly on the assessment handout. Their goal is to make an effective basic cast and identify as many bugs and fish correctly in 20 casts.

**Extension**

Challenge students with more difficult casts.

**Refinement**

For students who are finding it difficult to hit the targets, have them pay particular attention to their thumbs on the spine of the rod cork. Often, they will let the thumb slip to the side, which affects accuracy.

**Student Choices/Differentiation**

- Vary the length of the rod and the distance from the targets.
- The assessment can be completed individually or in small groups.

**What to Look For**

- Students are using correct casting technique.
- Students are actively engaged in the assignment.

## Instructional Task: Fly Fishing as Physical Activity

**■ PRACTICE TASK**

Lead a discussion about the benefits of fly fishing, what's needed in terms of resources and gear, and nearby areas where people can participate.

**Guiding questions for students:**

- Where can people fly fish within an hour or two of our school?
- How would your gear differ for different types of water (streams, rivers, flat water, salt water)?
- What are the potential benefits of fly fishing?

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**EMBEDDED OUTCOMES: S5.H1.L.1: S5.H3.L.1** Use the guiding questions to help students think specifically about the health and enjoyment benefits of fly fishing.

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## **Student Choices/Differentiation**

- Provide maps of local bodies of water to support student engagement.
- Students can use devices to search for gear suggestions.

## **What to Look For**

- All students are contributing to the discussion.
  - Students are offering meaningful suggestions.
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## **Formal and Informal Assessments**

- Student handouts
- Casting assessment
- Exit slip: How can fly fishing be part of a physically active lifestyle?
- Journal entry

## **Closure**

- During the debriefing, ask students to provide examples of where to find fish in both lotic and lentic environments.
- Next class, you'll learn about tying the line so you'll be able to set it up yourselves and be prepared when you break it or lose a fly.

## **Reflection**

- Were students able to make a connection between what fish need and where we might find them in their natural environments?
- Were they able to articulate the benefits of fly fishing for a physically active lifestyle? Review exit slips.

## **Homework: Fly Fishing Journal Entry**

- Research the common flies for a nearby river.
- What fly would you expect to imitate in July, and what fly pattern is popular?
- Choose one other body of water that you have a connection to and repeat the research.

## **Resources**

Online research for the journal entry specific to the river and local area  
Troutnut: [www.troutnut.com](http://www.troutnut.com)

## FISH REQUIREMENTS

Fish try to expend as little energy as possible while being both close to their food source and acquiring plenty of oxygen. They have three basic requirements:

### Food

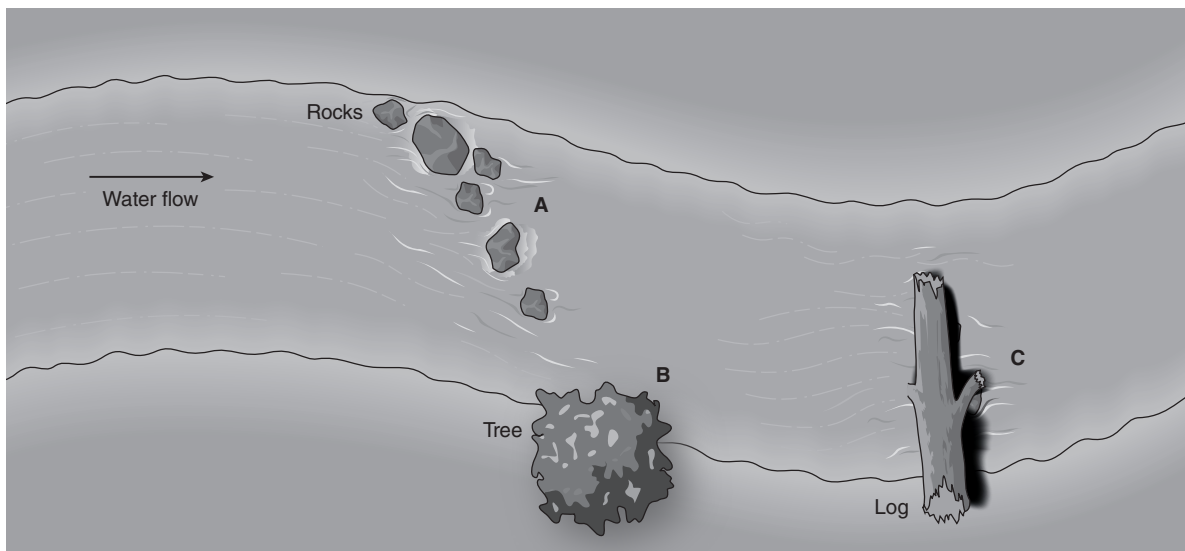
Fish eat invertebrates, small fish, and crustaceans. Fish want to be close to their food source.

### Shelter

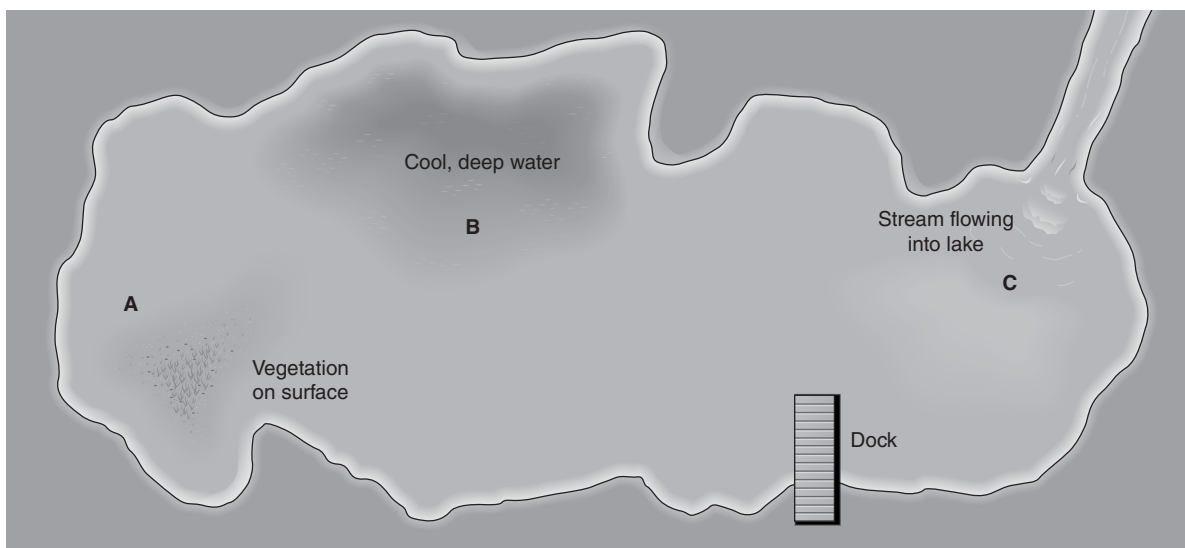
Fish need protection from predators and from strong currents (but want to be close to feeding lanes so they expend little energy getting food).

### Oxygen

Temperature affects oxygen levels in the water. Colder water has more oxygen. Riffled water has more dissolved oxygen. Shade cools the water, allowing higher oxygen levels.



### LOTIC (FLOWING) WATER



### LENTHIC (STILL) WATER

From L.C. MacDonald, R.J. Doan, and S. Chepko, eds., 2018, *Lesson planning for high school physical education* (Reston, VA: SHAPE America; Champaign, IL: Human Kinetics).