



## River Safety Lesson Plans

[http://www.kansasriver.org/content/teen\\_teacher](http://www.kansasriver.org/content/teen_teacher)

### Introduction

Establish a short simple code of conduct based on showing respect and observing basic safety regulations such as wearing PFD's. Have parents and students sign off on this and keep it on file. Include a description of the discipline procedures for students.

### A. Personal Floatation Devices

**Lecture:** Personal flotation devices (or PFDs for short) are the most important piece of safety equipment you can have on a boat. Most boats are required to have a wearable PFD on board for each passenger, but PFDs are like seatbelts in a car: "It won't work if you don't wear it." PFDs are very important because in the event that you fall overboard, a personal flotation device will help to prevent you from drowning. One of our favorite sayings about PFDs is: "They float-you don't!" Everyone on a boat must have a wearable PFD that is US Coast Guard approved, in good condition, and is the correct size for the person it is intended for. Children age 12 and under must wear their PFD on all boats 20 feet and under and on all canoes and kayaks. In addition, one type 4 throwable PFD is required on all boats 16 feet and over.

## Put On The PFDs

**Hands On:** Have the teens each pick out and put on a PFD. Check the fit by raising his or her arms while someone else is pulling up on the PFD--if the PFD is properly fitted, it will not slip over their head.

A description of PFDs can be found on our *Selecting a PFD* page.



## B. The Canoe

**Lecture/Demonstration:** Provide a brief description of the parts of the canoe: bow (front), stern (rear), and gunwales (also called gunnels- the upper edges of the canoe's sides). Provide a brief description of the parts of the paddle--grip (where your top hand goes), shaft (pole part where your bottom hand goes), and blade (part that goes in the water). Demonstrate the proper steps of getting into a canoe (this can initially be done on dry land).

1. The canoe should be in the water as far as possible. If the boat is too far up on the shore it will cause "bridging"- a boat that rocks and is difficult and dangerous to enter. One person should steady the boat by bracing it between their knees and holding the gunwales steady with their arms while others get in.
2. Everyone should maintain three points of contact with the canoe while entering it. One hand should be on each gunwale, and one foot in the center of the canoe. STAY LOW to slide to your position in the boat and keep your feet on the center rivet line. Remember- NEVER stand up in a canoe!
3. The first person in the boat should steady it with the paddle while the others get in.
4. Be sure that your boat is now in deep enough in the water to push off.
5. Remind everyone to keep his or her weight centered over the seat or center of the canoe.

Please remember that no one is permitted to tip his or her canoe today. If you remember to follow the steps outlined above, NEVER to stand in a canoe, and to always keep your weight centered, you will NOT tip.

An overview of canoeing can be found on our website on the *Canoe Safety* page.

### Short Canoe Ride (optional)

**Hands On:** Each teen should get to complete a short canoe ride. (Note: putting inexperienced kids on moving water is not advisable. A pond with still water and no current is safer. Put two kids per canoe (three if they're very small). One adult in each canoe with kids is optional but a good idea, depending on the policy of sponsoring club/facility, amount of help available, and number of safety boats in the water.) Remember- always have a spare boat on the side of the pond for a safety boat.



### Safety Jigsaw

#### Objectives

- Students will understand that a personal flotation device (PFD) should be worn when in a boat or canoe.
- Students will be able to put on a PFD and test to determine if the fit is appropriate.
- Students will recognize the importance entering a canoe safely.
- Optional; Students will complete a short canoe ride.

#### Materials

Create icon cards using the material provided on the Jigsaw Icon page.

#### Procedure

1. Divide students into manageable sized groups (4-5).
2. Provide each student with a copy of the water icon card and assign one section of the water safety information to each group (i.e. importance of PFD's, putting on a PFD and test, canoe safety rules) to research and become an expert on.

3. After students have read and understood the information with their group, create a "jigsaw" of learning. Divide students up like you would a jigsaw puzzle, one student from each group joining with one from each of the other groups so that each group now consists of an expert in each section of water safety.
4. Have the members of these newly assigned groups share their area of expertise. When finished, each member of the class should have learned about all water safety areas on the icon card.
5. Now that the students are experts, they are ready to create Safety Stickers to share with friends and family.



## Jigsaw Lesson Materials

### Icons

### Importance of PFD's

The U.S. Coast Guard's 2002 statistics confirmed the importance of PFD use; 85% of the fatalities that drowned in recreational boating accidents in 2002 could have survived if they had taken the simple step of wearing a lifejacket.

People will be more likely to wear a PFD if they are aware of the risks and benefits. Because of the nature of the canoe, the paddler is more likely to end up in the water than other types of boaters. A responsible paddler should always assume that he or she is likely to get wet. A vital part of enjoying canoeing in a safe manner is the awareness that water can be cold and deadly. A serious obstacle to this idea in many potential victims is that they don't consider themselves as 'paddlers' and don't seek out instruction, and often ignore paddler-specific safety education. The idea "I'm not a paddler, I don't need instruction" is at the heart of boating accidents. If a paddler is not aware of the danger that cold water and hypothermia present, that paddler is less likely to dress appropriately. In fact, 71% of boating fatalities were in water less than 65 degrees. It should be of serious concern to all boaters.

Other obstacles face paddlers as well. Low-head dams, strainers, bridge abutments, sieves, undercut rocks, and powerful hydraulics are only a few of the most common dangerous conditions of which paddlers need to be aware. Distance from shore, as well as distance from aid, is also a factor for paddlers who like to explore places most powerboats cannot. These are all examples of

conditions that require education. Through education it will become clear that there is a need to wear a PFD. PFD use is important for the safety of all paddlers.

### Frequently Asked Questions About PFDs

What's the "Best" PFD?

In terms of risk of drowning, the safest Personal Flotation Device (PFD) is the one you're willing to wear!

"I only need a PFD in case I'm unconscious or incapacitated, right?"

Wrong. You need your PFD before you're unconscious, otherwise, how would you put it on? Obviously, the best PFD is the one that saves your life every time it's needed. To accomplish that task, a PFD must be available for proper use at the time of an accident, must be designed to perform well enough to keep your head out of the water, and must be reliable enough to provide its design performance when needed. It is the combination of these three characteristics that define the life-saving potential, or safety, of your PFD. If a PFD fails to do any one of these three essential tasks, it can't save your life..

Accident data clearly shows that Type III PFDs have very significant reduced fatalities overall, as well as those fatalities in which a PFD was somehow used.

It can't save you if you don't use it. Research and boating accident statistics have shown that the most frequent failure resulting in drowning is not having a PFD available when needed. About 423 people drowned in 2006, apparently because they didn't have a PFD that they were willing to wear.

### Selecting a PFD for Your Needs

Select your PFD by reading the label and ensuring that it is U.S. Coast Guard approved for your size and weight, the type of activities you'll be doing, and the kind of water you'll encounter.

### Fitting Your PFD

The next step in selecting a PFD is ensuring it fits properly and is comfortable. Try on several types with different amounts of clothing to gauge how the PFD will feel when worn at different times throughout the year. Adjustable straps will help you alter the fit for the amount of clothing you'll wear. The PFD should fit snug; if it is too loose it will not provide proper flotation in the water. A common fitting practice is to put on the PFD, and tighten all straps and close zippers. Next, raise your arms above your head and have someone try and lift the PFD up by the

shoulders. The PFD is not a proper fit if it is too loose; signs of this are if the PFD moves and almost comes off, or if the main zipper or strap touches your nose.

### Types of PFDs

Type I: offshore lifejackets, are the most buoyant PFDs and suitable for all water conditions, including rough or isolated water where rescue may be delayed. Although bulky in comparison to Type II and III PFDs, offshore jackets will turn most unconscious individuals to the face-up position. They range in sizes from adult to child.

Type II: vest is designed for comfort. Type II PFDs, or near-shore buoyancy vests, are for calm and open water where a rescue will occur quickly. They are not designed for long periods in rough water. These vests will turn some, but not all, unconscious wearers face-up in the water. Some inflatable Type II models will turn wearers to the face-up position as well as a Type I PFD. This vest is less bulky than a Type I and often the least expensive of the PFD types. Type II PFDs are available in a variety of sizes.

Type III: Water Sport Vest with impact rating of 100MPH. Type III PFDs, or flotation aids, are for calm and open water where a rescue will likely occur quickly. These PFDs are designed to keep the wearer in a vertical position. It is the wearer's responsibility to maneuver themselves into a face-up position, usually accomplished by tilting their head back. Type III inflatable models will keep unconscious wearers face-up as well as a Type II inherently buoyant vest. This PFD is not recommended for rough water conditions. These PFDs are the most comfortable to wear and popular for recreation boating and fishing. Type III PFDs come in various sizes from adult to child.

Additional material can be found on our *Selecting a PFD* page.

### Canoe Safety Icon

The canoe is one of the oldest means of water travel. These boats have remained virtually unchanged in design for thousands of years.

But don't let a canoe's simplicity fool you. As easy as it may seem to leisurely paddle a canoe, a journey can quickly become dangerous if appropriate safety guidelines are overlooked.

You can minimize your risk of danger by being smart about where and when you canoe. Choose a lake or river that is appropriate for your skill level. Try to avoid high water (it makes a river run faster), high winds, and storms. And don't go out alone -- there's safety in numbers. It is recommended that you canoe with a minimum of three people or two crafts.

Before you even step into your canoe, make sure your craft is in good condition and that you take along the following items:

- At least two paddles, plus an extra in case you drop or break one.
- Extra ropes or lines.
- A bail bucket.
- A first-aid kit.
- A dry change of clothes in cooler weather.
- Plenty of water and food.
- A light if you will be out in low-light conditions.
- A personal floatation device (life vest), with a whistle attached, for each passenger.
- Sun protection – hats, sunscreen, long sleeves and pants.
- Map – be sure you know where you are so you do not get lost!
- Tie all equipment to your canoe – put your equipment into a waterproof bag to keep it dry and tie it to one of the center beams in the canoe so that you don't lose everything.
- Do not litter – carry out everything you bring in.

The PFDs are an absolute must, particularly considering how unstable a canoe is and the risk of drowning and hypothermia.

To get into your canoe, have someone hold it steady. As you step in, bend your knees and grab the sides of the canoe for balance. Walk to your seat along the center of the boat. Remember to remain on your seat; don't stand on the sides of a canoe. The slightest shift of weight can make a canoe tip. It is important to keep your load balanced. Avoid sudden movements or rocking from side to side.

Once you are paddling:

- Keep an eye out for other boat traffic and keep appropriate distance.
- Heed all safety warnings.
- Be aware of water currents and try to keep your canoe at right angles to big waves.
- Look out for water hazards such as low branches, fallen trees, rocks and debris.
- Keep your shoes on to avoid slipping or stepping on sharp objects near shore.
- Be aware of the currents in the water – you don't want to end up floating farther downstream than you planned.

- Always sit on the seats or in the center of the canoe – sitting on the side of a canoe will cause it to tip over.
- Stay away from low hanging trees and branches near the shore.
- Do not canoe in bad weather.
- Avoid letting big waves hit the side of your canoe – always try to keep your canoe at a right angle to the waves.

If your canoe does tip over, don't panic. Stay with your canoe and paddle or push it toward the shore. When you get to shallow water, flip the canoe with the help of another person and carefully climb back in. Your canoe will float even if it's full of water until you can get to shore to empty it.

Additional material can be found on our *Canoe Safety* page.

### Sources

Wisconsin Dept. of Natural Resources

<http://www.dnr.state.wi.us/Org/caer/ce/eek/nature/camp/canoeSafety.htm>

U.S. Coast Guard

[http://www.uscgboating.org/SAFETY/fedreqs/equ\\_pfd.htm](http://www.uscgboating.org/SAFETY/fedreqs/equ_pfd.htm)

North Carolina University Extension

<http://wilson.ces.ncsu.edu/index.php?page=news&ci=HOME+6>

NATIONAL TRANSPORTATION SAFETY BOARD, WASHINGTON, D.C

Personal Flotation Devices in Recreational Boating

August 25, 2004

<http://ntsb.gov/Surface/marine/marine.htm>

Safety.com

<http://www.safety.com/articles/canoe-safety.html>

Testimony of Mark V. Rosenker

Vice Chairman, National Transportation Safety Board

before the Judiciary Committee Council of the District of Columbia on Bill 15-719

- Juvenile Flotation Device Requirement Amendment Action Of 2004

Washington, DC

May 27, 2004

<http://www.nts.gov/Speeches/rosenker/mvr040527.htm>

National Fire Protection Association

Water Safety Grades 7-8

by Kerri Acres, Belleville, Ontario

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<http://www.nfpa.org/itemDetail.asp?categoryID=1762&itemID=42141&URL=Safety%20Information/For%20public%20educators/Education%20programs/Risk%20Watch%AE/Risk%20Watch%20lesson%20plans/Grades%207-8&cookie%5Ftest=1>



## Safety Stickers

### Objectives

Students will create a sticker to support a safety message.  
Core subject integration: Health and safety, art, social studies.

### Materials

- White construction paper
- Crayons, markers
- Double-sided tape
- Laminating materials

### Procedure

This lesson can be used following an individual River Safety lesson.

1. Brainstorm river safety messages learned for the risk area just completed or the entire program.
2. List the messages on a chart or chalkboard.
3. Tell the students that they are going to design stickers to promote River Safety.
4. Have students think of ways to illustrate one or more messages.
5. Using the circle template, draw circles on white construction paper.
6. Distribute the construction paper to students.
7. Have students complete one or more stickers illustrating a safety message.
8. Laminate the stickers for durability.
9. Attach double-sided tape to the back of the stickers.

Students can wear their stickers, use them to decorate notebooks, or distribute them to other students, teachers, or family members.

### Expand this lesson

Invite a parent in the advertising field to visit the classroom to share the process of developing an advertising campaign and, in particular, the use of stickers in promoting messages.



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