

Know About Boating Before You Go Floating

KEY TERMS

All-around white light: Navigation light that is visible in all directions around the boat from 2 miles away.

Bow: The front part of a boat.

Buoy: An object that floats on the water in a bay, river, lake or other body of water and provides information to boats.

Capsize: To turn a craft upside down in the water.

Cleat: A wooden or metal fitting on the deck of a boat. It has two projecting horns around which a rope or line may be tied.

Gunwale: Upper edge of a boat's side.

Hull: The main body of a boat.

Port: The left side of a boat.

Propeller: A device with two or more blades that turn quickly and cause a boat to move.

Sidelights: Red (port side) and green (starboard side) navigation lights on a boat, visible from 1 mile away.

Skipper: The person who commands a boat. **Starboard:** The right side of a boat. **Stern:** The back part of a boat.

OBJECTIVES

After completing this lesson, students will be able to:

- Name the main parts of a boat.
- Explain some boating terms.
- Describe some important safety equipment that should be on a boat.
- Demonstrate putting on a life jacket.
- Explain how to board a boat.
- Understand how to balance a boat.
- Explain what to do if a boat capsizes (turns over).

MATERIALS, EQUIPMENT AND SUPPLIES

- Poster: Know About Boating Before You Go Floating
- Several Type II and/or Type III life jackets (in the various sizes that would fit the students)
- Mat or tape to create outline of boat
- Chairs (6)
- Watch or clock with a second hand
- Crayons, markers and pencils
- Fact Sheet 9: Longfellow's Rules for Safe Boating
- Fact Sheet 2: Longfellow's Safety and Rescue Equipment Information



- Student Handouts (one for each student):
 - Activity Sheet 8-1: Parts of a Boat
 - Activity Sheet 8-2: Boat Safety Equipment
 - Activity Sheet 8-3: Before You Go Boating
 - Activity Sheet 8-4: Anchors Aweigh
 - Activity Sheet 8-5: Boating Word Search
 - Activity Sheet 8-6: Buoys and Markers

Leader's Note

Display the poster, Know About Boating Before You Go Floating, at the front of the classroom. Begin a discussion about the poster by asking students questions such as, "Why is it important to know about boating before you actually go boating? What could happen if people on a boat did not know anything about boating safety?" Refer to the poster throughout the lesson. As an option, you may use a projector to display the electronic version of the poster.

TOPIC: INTRODUCTION

Key Points

- Boating is fun, but it can be dangerous.
- Learning about boats and understanding the safety rules of boating will help you stay safe while boating.
- Today we are going to talk about safe boating.

TOPIC: TYPES OF BOATS

Key Points and Discussion

- How many of you have ever been on a boat?
 Answer: Responses will vary. Allow time for responses.
- What kind of boat was it?

Answer: Responses will vary. Allow time for responses.

- Can you name some types of boats?
 Answer: Responses will vary but may include the following:
 - o Motorboat
 - Fishing boat
 - o Ski boat
 - o Canoe
 - o Sailboat



- Kayak 0
- Wave runner 0
- o Ship
- o Raft
- o Jet Ski
- Sailboat \cap
- There are many different kinds of boats.
- Sailboats, rowboats, kayaks and canoes are examples of boats that do not have engines.
 - Canoes are light, narrow and pointed in the front and back.
 - Canoes are moved by people using paddles. The paddlers face in the direction of travel and either sit or kneel.
- A boat that moves, or is propelled, by a person paddling or pedaling is sometimes called "human-powered."
- Boats that are powered by an engine are called motorboats.
- Boats are classified according to their length:
 - Class A is less than 16 feet. 0
 - Class 1 is 16 feet to less than 26 feet. 0
 - o Class 2 is 26 feet to less than 40 feet.
 - Class 3 is 40 feet to 65 feet.
- Different sized boats have different limits on how many people and how much weight they can hold.
- Every boat has a label, known as a capacity plate, that states how many people the boat can hold and the maximum weight (or load) allowed on the boat.
 - The capacity plate should be clearly visible to the passengers.
- The person who is in charge on a boat is called a skipper.

TOPIC: PARTS OF A BOAT

Key Points

- You should know some words for the parts or areas of a boat in case the skipper gives you an instruction.
- When you are facing forward on a boat, the following words describe the parts of the boat:
 - Port means the left side of a boat. 0
 - Starboard means the right side of a boat. 0
 - Bow means the front part of a boat.
 - Stern means the back part of a boat.
 - Hull is the body or shell of the boat.
 - Gunwale is the upper edge of a boat's side.
 - Cleat is a metal or wooden fitting on a boat or a dock to which a rope is tied.
 - An all-around white light is a light on a boat that is visible from "all around" the boat for 2 miles.
- A motorboat has a propeller, which is a device that has blades that spin around and cause the boat to move.
 - The propeller is located in the back of the boat. 0
 - The blades on a propeller are sharp. 0
 - When a propeller is spinning in the water, it could cut someone very badly. 0



- Stay away from the propeller.
- Never board or exit a motorboat when the engine is on.
- Never swim in water near a boat when a propeller is on.

Leader's Note: Have students complete Activity Sheet 8-1: Parts of a Boat.

TOPIC: BOATING SAFETY EQUIPMENT

Key Points

- Federal and state laws require boats to have certain equipment on board.
 - Boaters should know the requirements in their state for the type of boat they operate.
- What kind of safety equipment do you think should be on a boat?

Answer: Responses should include the following. Guide the discussion to help students get to the correct responses.

- Life jacket for each person
- Whistle, horn or bell
- Fire extinguisher
- Visual distress signals (flares, flags, lights)
- Running lights (lights on the side of the boat)
- o Anchor
- Oars or paddle
- Throwable rescue device (for any boat 16 feet or longer)
- First aid kit
- Flashlight
- o Compass
- o Rope
- o Radio
- Bailing device (a bucket that is used to get water out of the boat)
- Tool kit and spare parts
- o Nautical map
- o Blanket
- Whether a boat has an engine or not, it should have basic safety equipment.
- Here is some of the equipment a canoe should have, according to the American Canoe Association:
 - o Compass
 - o Map
 - Whistle or sound signaling device
 - o Throw bags or other rescue gear
 - o River knife
 - Bailing device (bailer)
 - o Extra paddle
 - Self-rescue devices (rope)



- Light for low light conditions or for signaling
- o First aid kit
- Drinking water and snacks
- o Sunscreen
- Dry bag with extra clothing

Leader's Note: Have students complete Activity Sheet 8-2: Boat Safety Equipment.

TOPIC: BEFORE SHOVING OFF

Key Points

- To make sure a boating trip is as safe as possible, the skipper of the boat should:
 - Inspect the boat, motor, safety equipment and personal flotation devices (PFDs) to be sure all are in good condition.
 - Check local weather reports and be aware of storm warnings.
 - Develop a float plan and give it to a responsible person. The float plan should contain details about where the boat is going and how long it will be out. This is important because if the boat is delayed, becomes lost or encounters problems, someone can come to help.
- Giving a float plan to a responsible person or friend is just as important for a canoe or kayak trip as it is for a motorboat.
- Canoes or kayaks often travel in secluded or scenic sections of lakes or ponds where there may not be other people around to help.

Leader's Note: Have students complete Activity Sheet 8-3: Before You Go Boating.

TOPIC: SAFE BOATING SKILLS

Key Points and Discussion

- Anyone who is going to be on a boat needs to know how to get on (to board) and how to get off (disembark) and how to safely move about the boat.
- Only one person at a time boards the boat.
- Here is how each person should board a boat:
 - Grasp the gunwale (side) when stepping in or out of a boat.
 - Balance the weight on a boat. This means people should sit all around the boat, not all on one side.
 - Move along the centerline of the boat to avoid rocking it.
 - Keep the weight on a boat low and toward the center.
- Do not overload a boat. The capacity label informs you about the maximum weight limit and number of people allowed on the boat. Be sure to check the capacity label.
- Who can tell me the most important safety step you should take before or as soon as you board a boat?
 Answer: Put on a life jacket.



- Life jackets are not just important to wear on a motorboat when you may be traveling in deep water, they are important on non-motorboats, such as canoes.
 - Canoes can tip over easily.
 - Canoe spills often take place in water that has a swift current.
 - It is very difficult to swim in rapids.
- A life jacket is important, not only for floating, but for extra protection if the water is cold.
- After most drownings from canoes or kayaks, life jackets are seen floating nearby—empty.
- Can anyone explain how to choose a life jacket and how to put one on?

Answer: Prompt students to include the following information:

- Check the label to find out the size and user weight the jacket is intended for.
- Make sure all straps, zippers, and ties are fastened. Tuck in any loose strap ends to avoid getting hung-up.
- Make sure the jacket fits just right. It should be snug.
- There should not be excess room above arm openings.
- The life jacket should not ride up over your chin or face.

Leader's Note: Have students complete Activity Sheet 8-4: Anchors Aweigh.

Activity

- Create the bottom of a "boat" by using mats or by taping off the floor to establish a boat outline. Create a boat that would be large enough to hold at least four students. Place six chairs in the "boat" to represent the seats on a boat.
- Divide students into groups of four.
- Tell students each group is going to take turns boarding the boat.
- Have the first group of students select and put on life jackets.
- Next, have them simulate getting on the boat and moving to a seated position.
- As you observe, make sure each student pretends to hold onto the gunwale (side) while boarding the boat.
- Students should not all sit on the same side of the boat. If they have not "balanced" the boat you can instruct them to do so.
- Once all passengers are seated, you can tell them to disembark so the next group can practice boarding.
- Make sure they hold onto the gunwale as they leave the boat.

Discussion

- What are four things you can do to keep a boat from sinking or capsizing (turning over)? Answer: Responses should include:
 - Do not overload the boat.
 - Balance the weight on a boat.
 - Keep the weight low.
 - Move along the centerline of the boat.

Leader's Note: Have students complete Activity Sheet 8-5: Boating Word Search.



TOPIC: RULES OF THE ROAD

Key Points and Discussion

- On land we stop at traffic lights and we drive on the right side of the road.
- Boaters also have "rules of the road" so they know how to move their boats when other boats are around.
- Does anyone know what "right-of-way" means?
 Answer: It is the right of one vehicle over another to pass or go first.
- Some rules of the road for boaters include the following:
 - Boats with motors give the right-of-way to boats without motors.
 - Meeting: When two boats meet head-on, each should keep to its right.
 - Crossing: A boat on the right has the right-of-way.
 - Passing: A boat being passed has the right-of-way. The passing boat must signal with a whistle, bell or horn which side it will pass on. (One blast means the boat will pass right, two blasts mean the boat will pass left.)

Leader's Note: See Fact Sheet 9, Longfellow's Rules for Safe Boating, for more information about safe boating. You can provide this information to students, depending on the level of the group.

• Can anyone tell us what a buoy is?

Answer: It is an object that floats on the water in a bay, river, lake or other body of water that shows areas that are safe or dangerous for boats.

- Buoys and markers are water traffic signs that provide direction and information.
- They also help identify danger areas and restricted zones.
- There are many different types of buoys.

Leader's Note: Have students complete Activity Sheet 8-6: Buoys and Markers.

TOPIC: WHAT TO DO IN A BOAT EMERGENCY

Key Points and Discussion

- What should you do if your boat capsizes (turns over)? **Answer:** Stay with the boat unless it is being carried toward a dangerous area, such as a dam or waterfall.
- What should you do if you fall from a boat into cold water?

Answer: Climb back into the boat. If the boat has turned over, climb on top of the boat. If you cannot climb onto the boat and you have on your life jacket, get into the HELP position. Swim to shore only if it is very close.



If someone else is in trouble in the water, what can you do to help from your boat?
 Answer: Perform a reaching or throwing assist.

Leader's Note: See Fact Sheet 2, Longfellow's Safety and Rescue Equipment Information, for more information about safety and rescue equipment. You can provide this information to students, depending on the level of the group.

Activity

- Using the "boat" you created earlier, arrange four chairs like seats in a boat.
- When students are not looking, place a life jacket under each of three seats. Place a fourth life jacket in the back of the boat, behind all of the seats.
- Ask a volunteer to sit in each seat.
- Tell students, "When I say go, the boat will sink and you will have 1 minute to find a life jacket and put it on correctly. Go."
- After 1 minute, say "Stop." See which students were able to put the life jackets on correctly and which ones were not.
- Tell students, "It is extremely important to put on a life jacket before getting into a boat or as soon as you board a boat. It could save your life. You may not have enough time in an emergency."

TOPIC: WRAP-UP

Leader's Note: Refer back to the poster, Know About Boating Before You Go Floating, as you review the lesson.

Discussion

What do boaters need to do before they go floating?

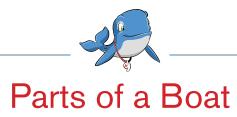
Answer: Check the safety equipment, make sure everything is in good working order, check the weather report, give a float plan to a responsible person with details about where the boat is going and for how long.

- How can you act safely when you go boating?
 Answer: Responses should include:
 - Always wear a life jacket.
 - Balance the weight.
 - Keep your weight low.
 - Move along the centerline of the boat.
 - Do not overload the boat.
- What is one of the most important safety items that every boater should have and wear whenever they go boating?

Answer: Every boater should have and wear a life jacket.

• Whenever you go boating, you should always practice safe boating.





Label the parts of a boat using the words below.

all-around white light

bow

horn

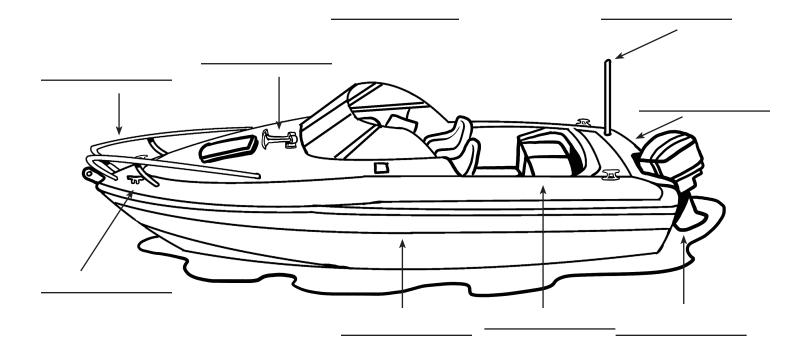
port

propeller cleat

gunwale starboard

stern

hull





Name: _

Draw a line from each word to the matching picture.

air horn

anchor

bailer

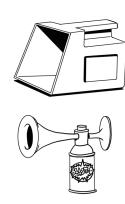
fire extinguisher

first aid kit

life jacket

nautical map

throwable device

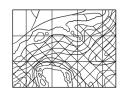
















Unscramble the words to reveal some safety items that you should have when you go boating.

epro	
arso	
slahfglith	
rleafs	
ohnr	
mpaossc	
lebl	
eifl tcaekj	
iodar	





Look for safety items in the picture that should be taken on a boating trip. List the ones you can find.





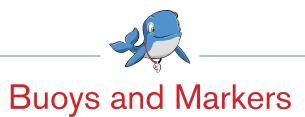
Find the hidden boating words listed below. The words can run across or down.

i	d	S	k	i	р	р	е	r	X	е	е	S	g	n
g	S	t	n	X	q	W	u	t	n	а	V	С	u	V
С	j	W	j	С	r	е	t	Z	W	d	Ι	С	n	u
b	r	d	d	n	n	У	m	m	X	r	S	i	W	n
u	i	а	у	d	f	S	t	е	r	n	р	V	а	r
ο	а	У	b	i	k	d	С	а	n	t	m	р	Т	i
У	r	р	а	е	а	n	С	h	Ο	r	n	t	е	р
а	j	Ο	T	f	S	m	h	S	С	u	q	d	j	С
t	h	r	а	d	b	а	i	Т	е	r	а	m	р	u
i	m	t	n	r	r	w	0	k	V	r	V	ο	W	r
С	b	n	С	h	V	р	r	ο	р	е	Т	Т	е	r
Т	z	z	е	f	S	S	t	е	g	а	X	h	С	е
i	Т	q	z	ο	i	t	S	u	а	h	X	е	у	b
f	r	S	t	а	r	b	0	а	r	d	Ζ	W	g	ο
С	е	n	t	е	r	Ι	i	n	е	X	t	S	t	w

Word List

anchor	buoy	propeller
bailer	centerline	skipper
balance	gunwale	starboard
bow	port	stern

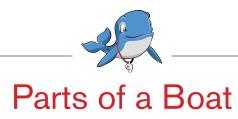




Name: _

Color the waterway scene below and all the buoys and markers. Color the port (left) side buoys green and the starboard (right) side buoys red. Color the warning signs orange.





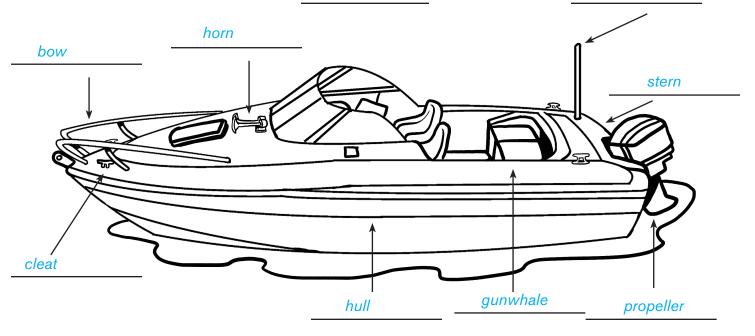
Label the parts of a boat using the words below.

all-around white light hull bow port propeller cleat gunwale

horn

starboard stern

all-around white light



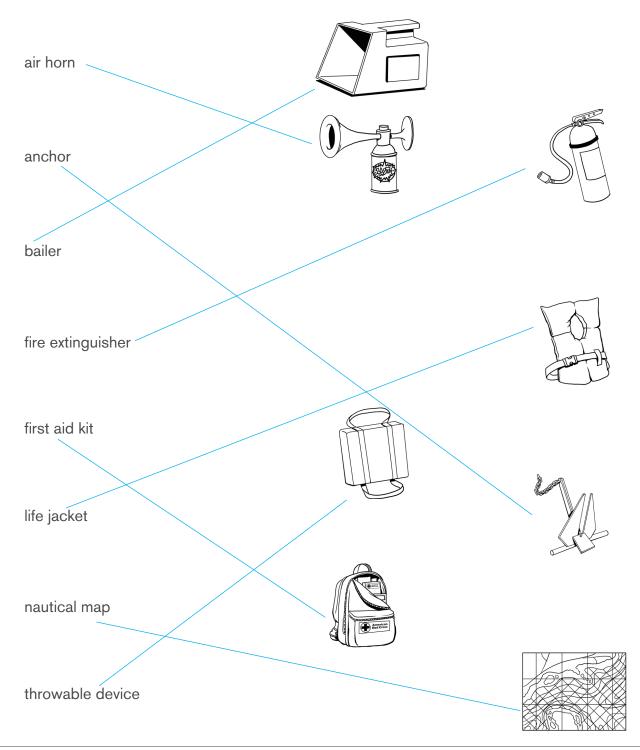
starboard

port





Draw a line from each word to the matching picture.







Unscramble the words to reveal some safety items that you should have when you go boating.

epro	rope
arso	oars
slahfglith	flashlight
rleafs	flares
ohnr	horn
mpaossc	compass
lebl	bell
eifl tcaekj	life jacket
iodar	radio





Look for safety items in the picture that should be taken on a boating trip. List the ones you can find.



- 1. <u>air horn</u>
- 2. anchor
- 3. life jackets
- 4. oars/paddles
- 5. <u>bailer</u>
- 6. fire extinguisher
- 7. <u>rope</u>
- 8. ring buoy
- 9. first aid kit
- 10. <u>flashlight</u>
- 11. *radio*





Find the hidden boating words listed below. The words can run across or down.

i	d	S	k	i	р	р	е	r	Х	е	е	S	g	n
g	S	t	n	X	q	W	u	t	n	а	V	С	u	v
С	j	w	j	С	r	е	t	z	w	d	Т	С	n	u
b	r	d	d	n	n	У	m	m	X	r	S	i	w	n
u	i	а	у	d	f	S	t	е	r	n	р	V	а	r
0	а	У	b	i	k	d	С	а	n	t	m	р	Т	i
у	r	р	а	е	а	n	С	h	0	r	n	t	е	р
а	j	ο	Т	f	S	m	h	S	С	u	q	d	j	С
t	h	r	а	d	b	а	i	I	е	r	а	m	р	u
i	m	t	n	r	r	W	0	k	V	r	V	0	W	r
С	b	n	С	h	V	р	r	0	р	е	Ι	I	е	r
I	z	z	е	f	S	S	t	е	g	а	X	h	С	е
i	Т	q	Ζ	ο	i	t	S	u	а	h	X	е	у	b
f	r	S	t	а	r	b	0	а	r	d	Z	W	g	ο
С	е	n	t	е	r	Ι	i	n	е	X	t	S	t	w

Word List

anchor	buoy	propeller
bailer	centerline	skipper
balance	gunwale	starboard
bow	port	stern





Boat Classifications

Class A: Less than 16 feet Class 1: 16 feet to less than 26 feet Class 2: 26 feet to less than 40 feet Class 3: 40 feet to 65 feet

Skipper's Terms

Port means the left side of a boat looking forward.

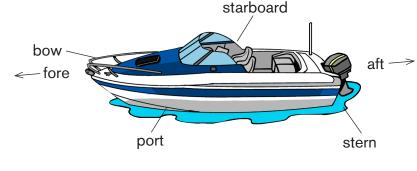
Starboard means the right side of a boat looking forward.

Bow means the front of a boat.

Stern means the back of a boat.

Fore means in the front of a boat.

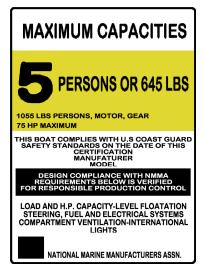
Aft means in the back of a boat.



Boating Rules

To make sure a boating trip is as safe as possible, the skipper of the boat should:

- Check state laws regarding boating regulations.
- Develop a float plan and give it to a responsible person. The float plan should contain details about where the boat is going and how long it will be out. This is important because if the boat is delayed, becomes lost or encounters problems, someone can come to help.
- Inspect the safety equipment, boat, motor, life jackets and other personal flotation devices (PFDs) to be sure all are in good condition.
- Check local weather reports and obey storm warnings.
- Never drink alcohol before or while operating a boat.
- Never boat near a dam. (Above a dam, the boat could be pulled into a floodgate. Below a dam, the boat could be hit by a wall of water created when the floodgates are opened.)
- Know the boat's capacity and be sure not to overload the boat. (The capacity plate shows the maximum load and the horsepower rating of the boat. It is located inside the boat in a place where passengers can see it.)







Safety Equipment

There are federal and state requirements for boating equipment. Here is a list of some of the safety equipment that should be on a boat:

- Life jacket for each person
- Whistle, horn or bell
- Fire extinguisher
- Visual distress signals (flares, flags, lights)
- Running lights
- Anchor
- Oars or paddle
- Rope
- Throwable device (U.S. Coast Guardapproved Type IV PFD)

- First aid kit
- Bailer (bailing device)
- Flashlight
- Tool kit and spare parts
- Nautical charts and maps
- Compass
- Radio
- Emergency blanket

Float Plan Information

A float plan should contain the following information:

- Boat name and number
- Boat color, size, make and capacity
- Number of engines, horsepower and type of fuel used if any
- Number of persons on board and their names, addresses and telephone numbers
- Type of radio equipment on board
- Departure date, time and location
- Estimated arrival date, time and location
- Destination
- Date and time U.S. Coast Guard should be notified if boat fails to reach its destination

A sample float plan can be found at http://www.floatplancentral.org/download/USCGFloatPlan.pdf

Boarding and Disembarking

There are certain ways to get on (to board) and to get off (to disembark) a boat. When you board and disembark, be sure that:

- Another person holds the boat, if necessary, to prevent it from capsizing.
- You grasp the gunwales (sides) when stepping in or out.
- Only one person at a time boards or disembarks.





When all the passengers have boarded, they should "trim" the boat by balancing the weight from side to side and from front to back. Weight should be kept low and toward the center of the boat.

Life Jackets

It is extremely important to put on a life jacket as soon as you board a boat because:

- You could fall overboard unexpectedly.
- You may not have enough time to put it on in an emergency.
- Life jackets help you float.
- Life jackets provide protection if the water is cold.
- Life jackets can save lives.

Rules of the Road

Right-of-Way	Boats with motors give the right-of-way to boats without motors. A sailboat running on motor power is considered a motorboat.
Meeting	When two boats meet head-on, each should keep to its right.
Crossing	A boat on the right has the right-of-way.
Passing	A boat being passed has the right-of-way. The passing boat must signal with a whistle, bell or horn which side it will pass on. (One blast means the boat will pass right; two blasts means the boat will pass left.)

How to Signal for Help

Some distress signals are:

- An orange flag.
- An arm signal using brightly colored cloth.
- An SOS light.
- An orange smoke signal.
- What to Do If a Boat Capsizes

If you are on a boat that capsizes (turns over), you should:

- Stay with the boat so rescuers can find you.
- Leave the boat only in an emergency, such as a fire or an approaching waterfall or dam.
- Hold on to the hull of the boat or sit in it and paddle with your hands.



- A flare.
- Morse code.
- Marine radio channel 16.



How to Rescue Someone from the Water

If you are in a boat and someone is in trouble in the water:

- Reach or throw, don't go.
- Keep the boat trimmed (balanced) when the person boards the boat.

Safe Boating

To learn about safe boating, take a boating course offered by the Red Cross, U.S. Power Squadron, U.S. Coast Guard Auxiliary, U.S. Sailing or state boating authority. These courses teach about navigation, boating rules, emergency procedures, and the effects of wind, water conditions and weather on boating.





Safety and Rescue Equipment

When helping someone in the water, it is always best to reach or throw, don't go. This is because only someone who is trained in water rescue, such as a lifeguard, should go in the water to help someone who is having trouble. Rescue equipment is used to help someone in the water. It can be used without going into the water.

Safety equipment helps keep people safe. Every swimming area should have safety equipment and rescue equipment.

Heaving Jug

A homemade, emergency throwing device made from a 1-gallon plastic container with ½ inch of water inside and a line attached to the handle.

Ring Buoy

A ring that floats and has 40 to 50 feet of lightweight line attached. The ring is thrown by the rescuer to someone in trouble in the water. A handle or object on the end of the line prevents it from slipping out of the rescuer's grasp.

Heaving Line

A strong, lightweight line, 40 to 50 feet long. A weighted object that floats is attached to one end. This helps direct the line out to the person in the water when it is thrown.











Throw-Rope Bag

A nylon bag containing line (rope) that floats. It is a throwing device often used to rescue someone who has fallen from a boat.



Reaching Pole

A pole, 10 to 15 feet long, made of bamboo, aluminum or fiberglass. It is extended into the water to help someone in trouble. A long tree branch or fishing pole could serve the same purpose.



A post with reaching and throwing devices attached. It is usually located at home pools or private ponds.

Rescue Tube

A vinyl, foam-filled floating support, approximately 45 to 54 inches long. It has a towline with a shoulder strap attached. It may be used as a throwing device.







Shepherd's Crook

A long, lightweight pole with a rounded hook at one end. It is used as a reaching pole or to encircle an unconscious victim in the water.



A hard, plastic buoy with handles on the sides. It has a towline with a shoulder strap attached. It is used by waterfront lifeguards when making a swimming rescue.

Lifeline

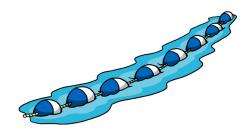
Floating line that marks and separates swimming and diving areas and shallow and deep water.

Warning Flags

Flags of various colors that describe safety conditions in the water. Here are some examples:

- Green Flag—safe, open for swimming
- Yellow Flag—caution, limited swimming because of currents or other conditions
- Red Flag—unsafe, closed for swimming
- Purple Flag—dangerous marine life











Lifeguard Chair

A lifeguard chair is a tall chair where a lifeguard sits, keeping an eye on swimmers and the water. The height of the chair allows the lifeguard to have an unblocked view of the water they are guarding, and it allows them to watch swimmers carefully for signs of distress. There is usually a ladder attached to one side that can be easily climbed. The tall chair helps people find a lifeguard if there is an emergency.



Posted Rules

Rules posted near supervised swimming areas. They contain facility rules and warnings.

Phone

Communication devices such as phones, two-way radios or megaphones are important safety items.

First Aid Kit

A first aid kit has supplies to care for someone who is sick or injured.



Continued on next page



FAILURE TO OBEY THESE RULES AY RESULT IN SERIOUS INJURIE



Backboard

A board that is used for a person with a possible head, neck or spinal injury. It keeps the person from moving in order to avoid further injury.

