

Welcome to Camp David Jr.,

Clallam County Parks, Fair, & Facilities owns and operates Camp David Jr., located on the scenic shores of Lake Crescent within the Olympic National Park of Washington State. The county staff is dedicated to ensuring you have a memorable experience at camp and its beautiful waterfront.

"Everyone must believe in something. I believe I'll go canoeing." -Henry David Thoreau

Canoeing Basics

We are thrilled to announce that Camp David Jr. has received a "No Child Left Inside" grant from the Washington State Recreation and Conservation Office. This funding has allowed us to purchase new canoe equipment and develop supplemental training materials, greatly enhancing our aquatic recreation program.

This document provides introductory and supplemental information about canoe equipment and flatwater canoeing. It is designed to help the camp director and staff equip campers with the basic skills and knowledge to develop a lifelong appreciation for this rewarding outdoor activity. <https://youtu.be/msyHGoonMxo>

"A canoe does not know who is king. When it turns over, everyone gets wet." – Malagasy proverb



But first, Water Safety!

Adult Supervision

An organized waterfront program at Camp David Jr. is a fantastic opportunity for water activities like canoeing, provided it is well-scheduled and supervised. To ensure adequate safety, each group will supply a waterfront counselor who must hold a current lifeguarding certificate from a recognized water safety organization or be a Coast Guard-trained rescue swimmer. This counselor will be present during any organized waterfront program, guaranteeing all participants a safe and enjoyable experience.

Excerpts from- *Clallam County Parks and Recreation Advisory Board Policy Manual, CHAPTER 8- Camp David Jr.*

“If at first you don’t succeed, try doing what the lifeguard told you to do the first time.”



County Personnel Camp David Jr. Aquatic Area Role

- Before arriving at Camp David Jr., county personnel provide each camp director and camp staff with reference materials, such as this document, to enhance the effectiveness of camp program planning and implementation.
- County personnel require physical evidence to ensure that any group organizing aquatic activities provides a qualified waterfront counselor with current recognized first aid and aquatic lifesaving certifications. This counselor will supervise all aquatic activities, as county personnel only monitor the aquatic area.
- While each group is at camp, county personnel offer a basic orientation on the logistics and procedures for launching and retrieving canoes and canoe equipment. County personnel can also provide supplemental onshore basic canoeing skills instruction upon request from the camp director or waterfront counselor.
- Under established county and departmental policies, county personnel will actively monitor but not supervise all aquatic activities using a motorized boat. This ensures that campers remain within the designated limits of the aquatic area and that outside boaters are aware of the campers while remaining outside the aquatic zone.

Excerpts from- *Clallam County Parks and Recreation Advisory Board Policy Manual, CHAPTER 8- Camp David Jr.*

“Learn to canoe because zombies can’t swim.” – *Author unknown*



Wear a Life Jacket!

Life Jacket usage correlates with a 94% Survival Rate of individuals involved in marine accidents.

-Life Jacket Usage and Effectiveness in Drowning Prevention by Laksham, Karthik B.

70% of all drowning deaths occur from boating incidents, and 85% of those victims – were not wearing their life vests.

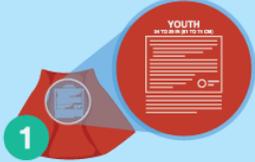
-US Coast Guard Statistic



A life jacket is essential safety equipment for anyone on the water. Wearing one significantly increases your chances of survival in an emergency. Recognizing that anyone can drown, regardless of age or swimming skills, is essential. According to the US Coast Guard, half of all recreational boating fatalities occur in calm waters. Don't take chances—always wear a life jacket.

In Washington state, it is mandatory for all children aged 12 and under to wear a U.S. Coast Guard-approved life jacket while using the size of canoes provided by Camp David Jr. Furthermore, camp regulations clearly state that all participants engaged in canoeing activities must always wear a life jacket, without exception. Safety is our top priority, and these rules are in place to ensure everyone's well-being.

HOW TO PROPERLY FIT A LIFE JACKET

- 

CHECK LIFE JACKET LABEL FOR THE APPROPRIATE WEIGHT OR CHEST SIZE.

The life jacket label will indicate the size and weight of the intended user. Make sure the wearer is within these ranges. Verify that the life jacket label states it is "Coast Guard approved."
- 

PUT THE LIFE JACKET ON.

Inspect the life jacket for wear and tear. Warning signs include rips and missing or broken buckles or straps.
- 

BUCKLE ALL STRAPS AND TIGHTEN OR ZIP UP ALL ZIPPERS.

Make sure all straps can be buckled and zippers zipped. Don't forget the crotch strap if there is one!
- 

HAVE THE WEARER LIFT THEIR ARMS OVER HEAD AND GENTLY LIFT THEM BY THE TOP OF THE LIFE JACKET ARM OPENINGS.

If the jacket rides up above their ears, it's too big. If the straps or zippers don't close, the jacket is too small.

WWW.BOATUS.ORG

"How little the color of a life jacket matters when we fall overboard. If something is important, it will be important under all circumstances. Otherwise, It's not important."
– Pat McBride



What did the life jacket say to the pessimistic canoer? Stop being so negative; I have your front, back, and sides!

“A day without canoeing probably wouldn’t kill me, but why risk it?” – *Author unknown*



PROJECT FUNDING PROVIDED BY



Essential Parts of the Canoe <https://youtu.be/yKg7UPmhv1w>

ANATOMY OF A CANOE

BOW
The bow is the front end of a canoe and it's the part that needs to cut through the water. For this reason, a canoe bow is pointed. Additionally, the bow often has an attachment point for mooring the canoe or tying off an anchor line.

YOKE
A canoe yoke works similarly to a thwart but will have a semi-circle cut out. The shape makes it easier to carry a canoe upside down on your shoulders while you portage overland.

THWART
Canoe thwarts are wooden, aluminium, or plastic struts that stretch horizontally from one side of a canoe to another. Thwarts brace the edges of the canoe (gunwales). There are usually two thwarts in tandem canoes, one behind the bow seat and about halfway between the yoke and the stern seat.

STERN
The back of a canoe is called the stern; this is often pointed too. However, asymmetric canoes sometimes have a square-stern. It's possible to mount a rudder or an outboard on some square-stern canoes. In a tandem canoe, the canoe is steered by the paddler who sits at the stern.

SEATS
In tandem canoes there are two seats, one at the bow and one at the stern. It's easy to tell the bow seat from the stern seat because the bow seat has plenty of space in front and behind. Comparatively the stern seat has almost no space behind it. In solo canoes there is one seat that is closer to the centre of the canoe but set back slightly to the stern.

GUNWALES
Also known as rails or gunnels, gunwales are the wide top-edge of a hull that runs from the bow to the stern on either side of a canoe. Gunwales are typically reinforced to bear the weight of the seats, thwarts, and yoke. Gunwales are also more exposed to scrapes and scratches.

DECK
The deck is the two triangular pieces at the top of the bow and stern covering the gunwales. The deck may double as a handle if a canoe doesn't have a designated handle for portage.

STEMS
Stems are the vertical shape of the stern and bow. There are two main types of stems; square stems and rounded stems. A rounded stem improves steering and makes it easier to turn a canoe while a square stem offers better tracking and keeps the canoe moving in a straight line.

HANDLES
Some canoes have designated handles at the bow and stern for easier portage and lifting canoes in and out of the water or onto a roof rack.

ROCKER
The rocker means how much of a curve there is to the canoe's hull from bow to stern. A higher rocker has more of an upward curve which allows a canoe to turn easier and faster because less of the hull is in the water. A rocker will less curvature can move faster and track better but takes more effort to turn.

SIDES
There are three main types of canoe sides to suit differing conditions and paddling preferences. These are: tumblehome sides, flare sides and straight sides.

KEEL
The canoe keel is the external ridge that runs lengthwise (bow to stern) along the center of a canoe's hull. This ridge is often made from metal and protects the hull from underwater rocks. The keel also helps the canoe move straight in winds or rough water. Because canoes with keels are slower to turn, whitewater canoes don't usually have keels.

ANATOMY OF A PADDLE

TIP
GRIP
SHAFT
THROAT
BLADE

An anatomical diagram of a canoe and a paddle. The canoe is shown from a top-down perspective, with labels for various parts. The paddle is shown from a side perspective, with labels for its parts. The canoe is green and black, and the paddle is wooden.

<https://coolofthewild.com/parts-of-a-canoe/>

“Studies have shown that paddling a canoe makes you more awesome than the general population.”



Stern- The back of the canoe is called the stern. You can tell it's the stern by how much legroom is between the seat and the end of the canoe. When canoeing with a partner, the more experienced, coordinated, or heavier paddler should sit in the stern if possible. The stern paddler oversees steering the canoe, often using the "J" Stroke technique.

Bow—The front of the canoe is called the bow—plenty of legroom between the seat and the end of the canoe. When canoeing with two people, the less experienced, less coordinated, or lighter paddler should sit in the bow position.

Gunwales or Gunnels- The upper edges of a canoe or boat (not shown in the diagram above).

Hull- The canoe area below the top edges (gunwales) is not shown in the diagram above.

Keel- A keel is a central, rib-like part on the bottom of a canoe hull. It extends to the front and back of the canoe. The keel helps the canoe move straight through the water.

Thwart- Thwarts are cross braces that connect one side of the canoe to the other. They provide strength to the canoe.

Seat—Canoeists usually sit at the front and back of the canoe. Most prefer to sit on the seats for comfort, but kneeling just in front of the seats provides excellent stability.

Yoke- The yoke is a crossbar that runs across the canoe's width. It has a small semi-circle cut-out to make it more comfortable for canoeists who carry the boat on their shoulders.

Starboard- The starboard side of the canoe is the right side when you are facing the front (bow) of the canoe.

Port—When you face the front of the canoe (the bow), the left side is called the port side.



“First rule of canoeing: never lose the paddle.” – *Author unknown*

Canoe Paddle

A paddle is used to move a watercraft. It has a long handle and a flat end called a blade. To move the craft forward, you push the water backward; this is called paddling. Hold the paddle with both hands spaced apart. For regular paddling, pull it through the water from the front (bow) to the back (stern) of the boat. Wearing gloves can help prevent blisters during long paddling sessions.

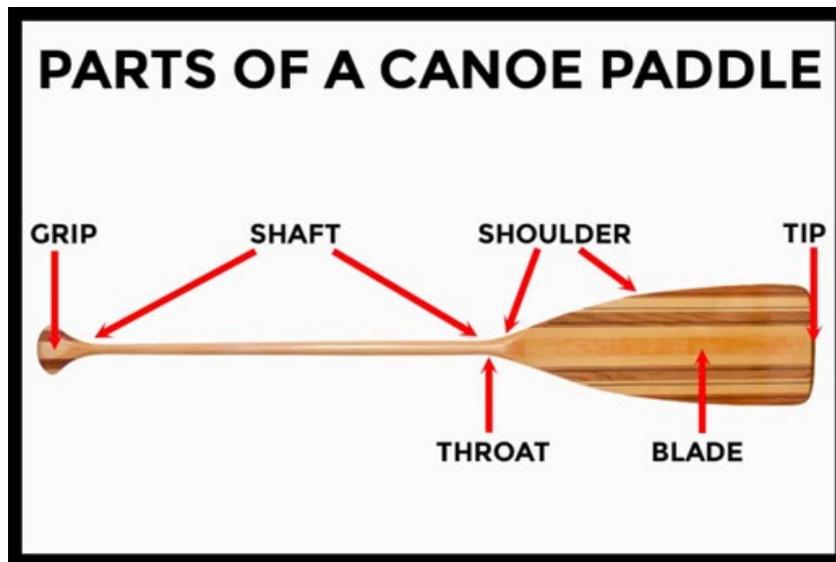
It's important to note that a paddle is not the same as an oar. Although they may look similar, an oar is fixed to the boat at a pivot point, which allows for rowing. Canoe paddles are usually made of wood, fiberglass, carbon fiber, or metal. One end has a handle, and the other has a flat blade.



“Life's short, paddle hard.”- *Author unknown*

Selecting and sizing the correct Canoe Paddle https://youtu.be/R5AQLl1V_vg

- Determining the correct paddle length for beginners
 - A simple method to size a canoe paddle is to place the blade on the top of your foot. The ideal length allows the handle grip to rest between your nose and chin while standing straight.
- The tea grip or butt is the most hazardous part of the paddle, so keep your hand up and over it.



Essential Parts of the Paddle <https://youtu.be/4KSwa6J3Jfw>

Canoe paddles usually have wood, fiberglass, carbon fiber, or metal shafts. One end has a handle, and the other has a flat blade.

Properly holding a Canoe Paddle https://youtu.be/Yo_Qdk41WWM?si=ee8cnUONDGHGLI2k

To hold a canoe paddle correctly, you should:

- Place your top hand on the tea grip, or butt, of the paddle. The butt of the paddle should be shaped to fit your palm.
- Place your bottom hand on the shaft, closer to the blade. Your bottom hand should grasp the shaft thumb-side up.
- Your hands should be slightly over shoulder width apart.
- If you're paddling on the left side of the boat, your right hand will be on top. If you paddle on the right side, your left hand will be on top.

“The storms come and go, the waves crash overhead, the big fish eat the little fish, and I keep on paddling.” – *George R. R. Martin*

“So lovely was the loneliness of a wild lake.” – *Edgar Allan Poe*



Basic Flatwater Canoeing- Types <https://www.youtube.com/watch?v=SLC5JIM2o8A>

Tandem Canoeing- Tandem canoeing involves two paddlers who sit or kneel in the front and back of the canoe. <https://youtu.be/aDaqvoIJD-A> <https://youtu.be/qH3HnhEaeok>

Solo Canoeing- Solo canoeing is when you paddle a canoe by yourself. You kneel between the back of the canoe and the yoke while paddling. <https://youtu.be/wAqwYOzZJ7Y>

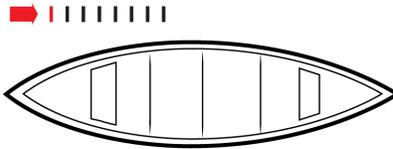


“Blessed are the curious, for they shall have adventures.” – *Lovelle Drachman*

Basic Canoe Strokes

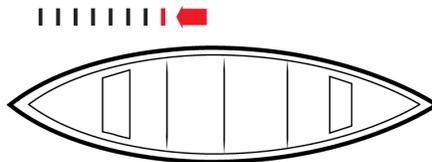
Canoe strokes are the movements made by a paddle to move a canoe through water. Paddlers can combine or change these strokes. The names of the strokes might differ based on the location and the paddlers' backgrounds. Here is a table of some commonly used strokes. <https://www.outdoors.org/resources/amc-outdoors/outdoor-resources/five-essential-canoe-paddle-strokes/>

“Forward” Stroke- The forward stroke is used most in canoeing. Using this stroke effectively gives canoeists a significant advantage. Place the blade at a right angle to the canoe’s centerline to start the forward stroke and pull it straight back—canoe paddle strokes. https://en.wikipedia.org/wiki/Canoe_paddle_strokes



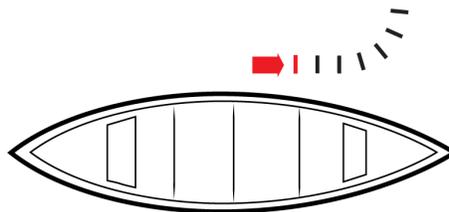
By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223062>

Reverse Stroke- The reverse stroke is a movement similar to the forward stroke but goes in the opposite direction. In this stroke, the back side of the paddle blade is used. People use this stroke to move the canoe backward or to stop it from moving forward. This action is often called "back paddling." (It's unclear from the graphic whether it shows a bow paddler or a solo paddler doing this stroke.)



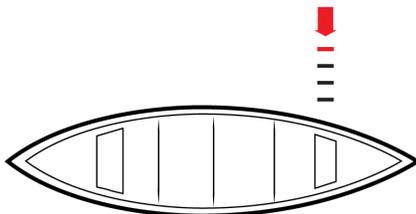
By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223062>

“J” Stroke- When paddling a canoe with another person, it’s common for the canoe to turn toward the side opposite the stern paddler, the person at the back. The stern paddler can use the J-stroke to keep the canoe going straight. This stroke happens at the end of a forward stroke. As the stern paddler pulls their arms back, they should turn their grip hand forward and down so their thumb points down. Then, they gently push their bottom arm outward, creating a quick "J" motion in the water. This helps steer the canoe back on track. https://youtu.be/4wrh4bC2_Wc



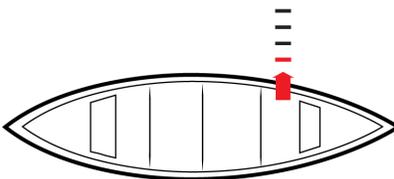
By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223083>

Draw Stroke- Draw strokes are used to move your boat sideways. This stroke is particularly helpful when approaching a dock or another boat. To perform a draw stroke, rotate your paddle blade to be horizontal. Extend the tip of the blade to touch the water about two feet away from the side of your boat. <https://youtu.be/za7NSIxBjTE>



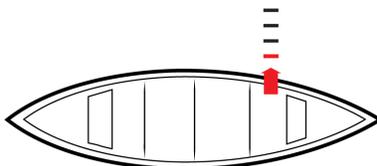
By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223193>

Pry Stroke- Hold the paddle vertically in the water to start the pry stroke with the power face facing out. Brace the paddle's shaft against the gunwale. Then, push gently to pry the canoe in the direction opposite to where you are paddling.



By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223140>

Push-away Stroke- The push-away stroke is like the pry stroke but is done differently. Instead of resting the paddle against the canoe's edge, you hold it vertically, like in the draw stroke, and push it away from the boat. This technique can feel awkward and require more strength than the pry stroke. However, avoiding contact with the edge helps prevent damage to the paddle and the canoe. This method also uses force more efficiently, as the paddle pushes straight outward instead of upward and outward.



By MooseHead88 - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=17223140>

“Voyage upon life’s sea, to yourself, be true, and whatever your lot may be, paddle your own canoe.” – Sarah Bolton



Tandem Canoeing Methods https://en.wikipedia.org/wiki/Canoe_paddle_strokes

Stay-on-one-side method- The stay-on-one-side method requires each canoeist to paddle on opposite sides. The person in the back can use occasional J-strokes to help keep the canoe moving straight. Which side to paddle on can depend on the wind and current. If the stern paddler pushes against these elements while paddling forward, they need fewer J-strokes to keep moving. Alternatively, paddlers may choose sides based on which side feels more robust and more comfortable.

Canoeists can decide which side to paddle based on these factors and may switch sides every twenty to thirty minutes or longer. This helps prevent muscle fatigue and lets them adapt to changing weather. Generally, paddlers should stay on opposite sides unless they must turn quickly or face solid winds or currents.

Switch sides often method- The "switch sides often" technique, also known as "sit and switch," "hit and switch," "hut stroke," "Minnesota switch," or "North American Touring Technique," is a paddling method where a paddler frequently changes sides. This helps keep the boat moving straight or allows for better steering. The stern paddler usually says "Hut!" to tell the bow paddler to switch sides. This method helps paddlers avoid extra strokes after a forward stroke, allowing them to paddle quickly and steadily over long distances. To maneuver, paddlers change the side they are paddling on.

“One way to get the most out of life is to look upon it as an adventure.” – *William Feather*



“I learned that the richness of life is found in adventure... It develops self-reliance and independence. Life then teems with excitement. There is stagnation only in security.”
– *William Orville Douglas*



“A day spent on the water is never a waste of time.” – *Author unknown*



“There is nothing—absolutely nothing—half so much worth doing as simply messing about in boats.” – *Kenneth Grahame*

Thanks to the Washington State Parks Recreation and Conservation Office staff for their assistance in exposing children and youth to the magic and majesty of a day spent on the water in a canoe.

PROJECT FUNDING PROVIDED BY



Canoe Graphics designed and applied by:



“The goal of a wilderness canoe trip should be to collect enough of the wilderness experience to last the whole year... A full cup is the only way that the winter can be endured.” – *Greg Went*