

Illinois Valley Yacht and Canoe Club

SUMMER SAILING TUITION PROGRAM



Authors:

Roger Huber - 309 678 5352

Pierre Lewin - 309 208 0333

Chuck Sanders

Kurt Field

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Objective of Sailing Program:

Introduce adult and/or children to the basics of sailing and awareness about the Illinois Valley Yacht club activities, amenities and membership advantages.

Overview of Sailing program:

The sailing program extends for 2 weeks, with 3x afternoons of 4hrs of sailing and sailing related activities per week.

Children up to 16 years of age compose the early afternoon group, adults in the later afternoon.

Skills acquired during the sailing program are:

- Safety precautions on/off the water
- Understanding the wind direction and effects
- Basic knots and rope attachments
- Basic sailing and equipment terminology
- Learning how to rig and unrig sailboat equipment
- Learning how to sail theoretically and in practice

Equipment used:

Children will be primarily assigned to prams and possibly lasers depending on weight and skill/experience as well as opportunity to crew in groups on capri 22 sailboats always captained by IVYC instructor(s)

Adults will have access to laser, and capri 22 sailboats always captained by IVYC instructor(s)

Location:

The program will combine some in class tuition either inside the yacht club, pool area, outdoors in north dock area parking lot, sailing equipment area, and north beach. Sailing will be conducted primarily on the Peoria Lake on the Illinois River adjacent and in front of the yacht club.

Weather considerations:

The sailing program may be adapted based on weather conditions. In the eventuality of:

- Too much wind
- Too much heat
- Not enough wind
- Rain

- Lightning
- Storms

Postponement, replacement or cancellation of part or all of the day's program will be subject to the evaluation of the sailing program director in consultation with his crew of instructors.

Participants will be advised as much in advance as timely as possible.

DAY 1 of 6

Ice Breaker:

- Welcome participants
- Introduce instructors
- Overview of club and amenities
- Learn students name and boating experience, reasons for attending
- Explain objective of sailing program and the different skills to be taught
- Explain lesson of the day

Location: outdoor sailing area or inside club depending on weather conditions

Lesson of the day:

1. Safety on/off the water
2. Wind awareness
3. Sailing dynamics, points of sails
4. Knots and rope attachments
5. Sailing and equipment vocabulary

1. Safety on/off the water:

- a. Swim skills (with equipment)
- b. Equipment and precautions for the program (closed shoes, sun protection, hydration, loss of personal equipment)
- c. Personal flotation devices
- d. Boat buoyancy or lack thereof (capsizing) and bailing
- e. Illinois River characteristics (current, depth, cleanliness)
- f. Boat and barge traffic (priorities)

2. Wind awareness:

- a. Quiz students on as many ways possible to identify direction of wind (flag, clouds, ripples on water, sails, vane, wind indicator, forecast app, grass or trees, licked finger, smoke,...)
- b. Show luffing as way on the water to see where wind comes from
- c. Introduce combination of wind and sail interaction

3. Sailing dynamics and points of sail

- a. Explain first and show how it is impossible to sail upwind (use paper, craft boats,...) but possible to get close at an angle and gradually away to the point of dead run.
 - b. Explain how a sail works by using analogy to airplane wing and hand outside of a moving car.
 - c. Show the four points of sail using either the wood points of sail dial or using a pram or laser on trailer (preferred).
 - d. Quiz students on explanation and various simulations of points of sail.
4. Knots and rope attachments
 - a. Explain purpose of basic knots, show how to make them, distribute rope, assist students in making knots
 - b. Figure of 8
 - c. Bowline
 - d. Clove hitch
 - e. Cleat
 - f. Jam cleat
 - g. Cam cleat
5. Sailing and equipment vocabulary
 - a. Have dinghy rigged and explain the various different areas and their names as well as their purpose.
 - b. Explain the following terminologies:
 - Port/starboard
 - Heel
 - Bear away
 - Head up
 - Windward
 - Leeward
 - Luffing
 - Tack
 - Jibe

Conclude Day:

- Pass out rope for knot practice
- Pass out hand out of point of sail, knots, boating terminology and boat equipment names
- Give time and place for following day and reminder of safety items to bring

DAY 2 of 6

Ice Breaker:

- Welcome participants back

- Quiz on Day 1 lesson (15mn)
- Remind safety guidance
- Explain how day will proceed (get boats ready, safety gear, how to go out on water and back)
- Supervise students on water and start working on building sailing skill sets

Location: outdoor sailing area or inside club depending on weather conditions, out on the water

Lesson of the day:

1. Learn how to independently rig and unrig boat
2. Learn how to correctly steer boat and place weight properly
3. Learn how to operate sails in accordance to points of sail
4. Learn how to leave and return safely to shore
5. Learn how to help unrig and store equipment

Conclude Day:

- Congratulate, ask for feedback on what concepts or challenges encountered
- Give time and place for following day and reminder of safety items to bring

DAY 3 of 6

Ice Breaker:

- Welcome participants back
- Quiz on Day 1 & 2 lesson (15mn)
- Remind safety guidance
- Explain how the day will proceed (get boats ready, safety gear, how to go out on water and back) and what are the target lessons of the day and exercises.
- Supervise students on water and start working on building sailing skill sets

Location: outdoor sailing area or inside club depending on weather conditions, out on the water

Lesson of the day:

1. Reinforce how to independently rig and unrig boat
2. Continue practice to steer boat and place weight properly by providing shore targets or buoys
3. Learn how to operate sails in accordance to points of sail by providing target directions
4. Learn how to leave and return safely to shore
5. Learn how to help unrig and store equipment

Conclude Day:

- Congratulate, ask for feedback on what concepts or challenges encountered
- Give time and place for following day and reminder of safety items to bring

DAY 4 of 6

Ice Breaker:

- Explain how day will proceed (get boats ready, safety gear, how to go out on water and back) and what are the target lessons of the day and exercises.
- Supervise students on water and start working on reinforcing sailing skill sets

Location: outdoor sailing area or inside club depending on weather conditions, out on the water

Lesson of the day:

1. Optimize point of sail settings for maximum speed
2. Focus on choice and holding of course(s)

Conclude Day:

- Congratulate, ask for feedback on what concepts or challenges encountered
- Give time and place for following day and reminder of safety items to bring

DAY 5 of 6

Ice Breaker:

- Explain how day will proceed (get boats ready, safety gear, how to go out on water and back) and what are the target lessons of the day and exercises.
- Supervise students on water and start working on reinforcing sailing skill sets

Location: outdoor sailing area or inside club depending on weather conditions, out on the water

Lesson of the day:

1. Exercise all sailing techniques (tack, Jibe, all points of sail) with little to no guidance to encourage autonomy

Conclude Day:

- Congratulate, ask for feedback on what concepts or challenges encountered
- Give time and place for following day and reminder of safety items to bring

DAY 6 of 6

Ice Breaker:

- Explain how day will proceed (get boats ready, safety gear, how to go out on water and back) and what are the target lessons of the day and exercises.
- Supervise students on water and start working on reinforcing sailing skill sets

Location: outdoor sailing area or inside club depending on weather conditions, out on the water

Lesson of the day:

1. Exercise all sailing techniques (tack, Jibe, all points of sail) with little to no guidance to encourage autonomy

Conclude Day:

- Congratulate, ask for feedback on what concepts or challenges encountered
- Give time and place for following day and reminder of safety items to bring

Exercise and activities:

On the water

- A. **Follow my leader:** students are to follow patrol boat, teaches how to steer consistently and turn. Opportunity to get instructions on points of sail and how to trim sails.
- B. **Follow my leader, overtake:** a variant to have student overtake to first position learning how to slow down to let others pass
- C. **Two can:** place two milk jugs or buoys and set up a line in various point of sail direction and instruct students to sail around clockwise, anti clockwise. Allows for steering skills, and sail trimming, tacking and jibing. A figure of eight trajectory is also a way to double up on jibes or tacks.
- D. **Three can:** same concept as above but with triangle. This exercise can be the basis for triangle, sausage, triangle race.
- E. **Pass the ball:** keeping the fleet together with passing from one boat to another. Games can be increased in elaboration with min number of passes, not allowed to return pass, must be new boater. This exercise promotes steering skills, keeps fleet together. Beware and forbid boat contact and collision. Zones and teams can be established to enhance competition
- F. **Water gun:** primarily for youth sailors, hand water guns. Provides fun activity, cool down in heat, keeping fleet together.

- G. **Water balloons:** same concept as above.
- H. **Capsize:** take one boat out with all students and take turns capsizing boat and righting back. Take into consideration students physical abilities as some may have challenges re-boarding boat. Add bailing to exercise.
- I. **Get out of irons:** teach students to purposefully get into and out of irons
- J. **Dock Dock:** teach students how to come up to side of the boat by calculating trajectory and slowing down into the wind

On land:

- **Build your mini boat:** students create there own boat with craft cork, toothpick mast, paper sail, keel. Teaches buoyancy, wind action, keel counter action
- **Tug that bowline:** after teaching students how to create a bowline, have one or multiple pull full force to tighten knot and have them undo

In the pool/or in the harbor

- **Life vest pool:** primarily for youth sailors, have them experience the buoyancy and swim sensations in the pool with life vest.
- **Tiller Tiller:** have a hull with rudder, tiller off dock with long line. Have student experience steering.

On boats:

- **Rig my role:** Learn how to rig mainsail and jib
- **Fold it for the day:** teach proper sail folding techniques
- **Dock it:** teach students to use dock cleats to secure boats in water
- **Tell tell:** a more advanced exercise teaching students how to trim sail using tell tells, or to steer boat to set sail
- **Rudder down/up:** teach students how to actuate up down of rudder and purpose.
- **Wait Weight:** set up on water or on trailer a fully rigged boat in order to simulate where to sit based on point of sail.
- **Hands on/off tiller:** with the boat rigged on water or trailer, simulate tacking or jibing and the ways in which to pass sheets and tiller from one side to another.
- **No rudder steer:** have students remove or retract rudder then learn how to steer boat using sail and weight.

Replacement activities:

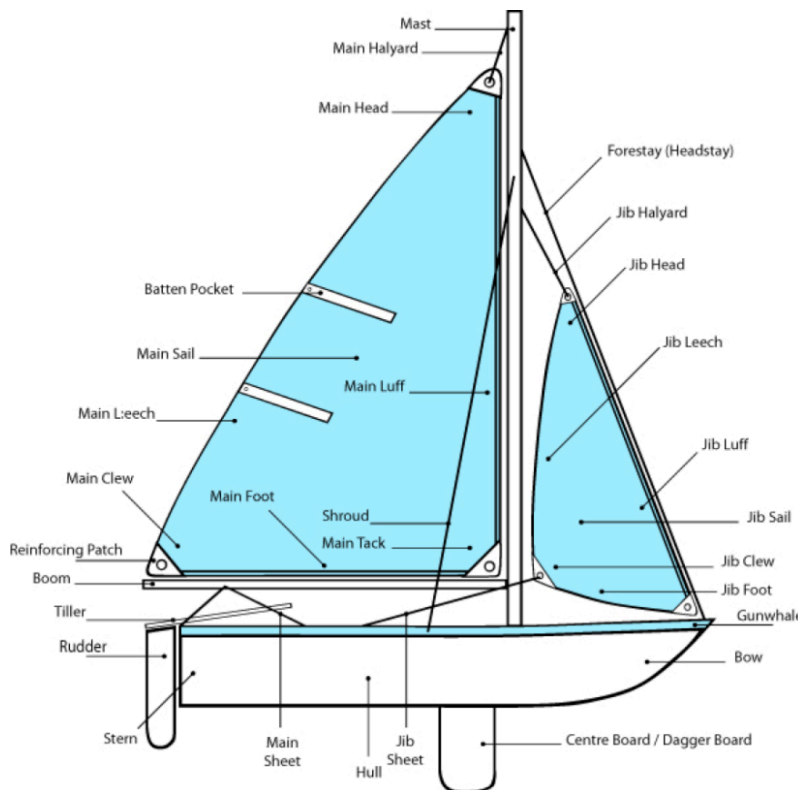
In the eventuality of unfavorable weather conditions (heat, no wind, strong winds, storms)

- Thunder storms: shelter or cancellation
- Excessive heat, cancellation or limited time on water, depending on wind. Pool activities for youth sailors, possibly use Ivy Yacht club play room.
- Strong winds: tandem up sailors or move from dinghies to capri 22s.

Student handout

Be safe, Have Fun!!

- Always wear a lifejacket
- Be aware of water and weather conditions
- Protect against the sun
- Be aware of other boat traffic

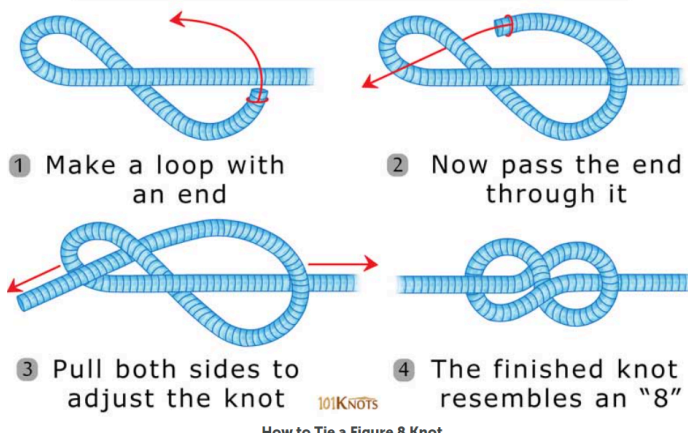


What are each parts for?

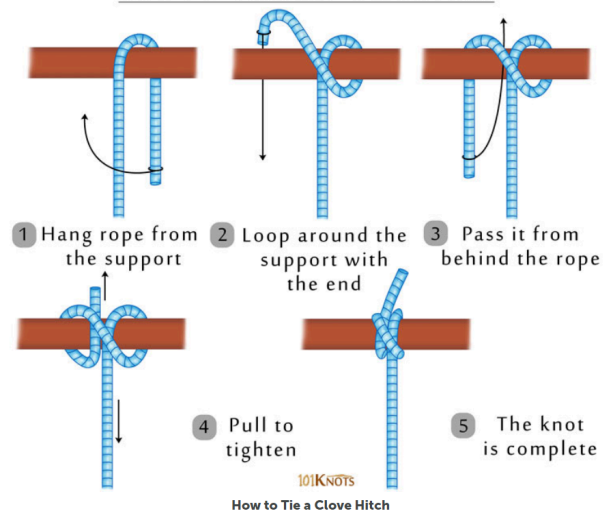
- **Mast** = to hold sail(s) up
- **Main halyard** = to pull the mainsail up the mast

- **Boom** = to hold the foot of the mainsail
- **Main tack** = to hold sail between boom and mast
- **Main clew** = to hold the back of the mainsail to the boom
- **Shroud and mainstays** = cables to hold the mast up
- **Rudder** = blade in the water to steer the boat
- **Tiller** = handle connected to rudder to steer boat
- **Center board / Daggerboard** = blade in middle of the boat to provide stability of the boat
- **Mainsail** = the sail between the boom and the mast
- **Jib/Genoa** = the sail at the front of the boat
- **Sheets** = lines or ropes that hold the sail.
- **Halyards** = lines that pull sails up
- **Vang or boom vang** = to hold the boom down
- **Mainsheet** = to pull or release the mainsail in and out
- **Jib sheet** = to pull or release the jib sail in and out
- **Stern** = rear of the boat
- **Bow** = front of the boat
- **Hull** = the boat without any equipment

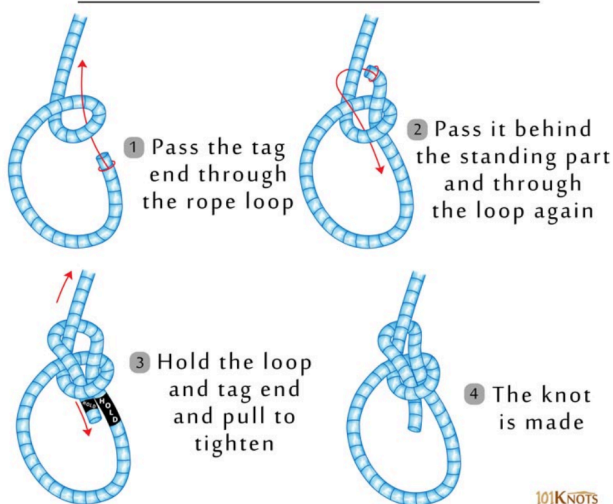
Figure 8 Knot Instructions



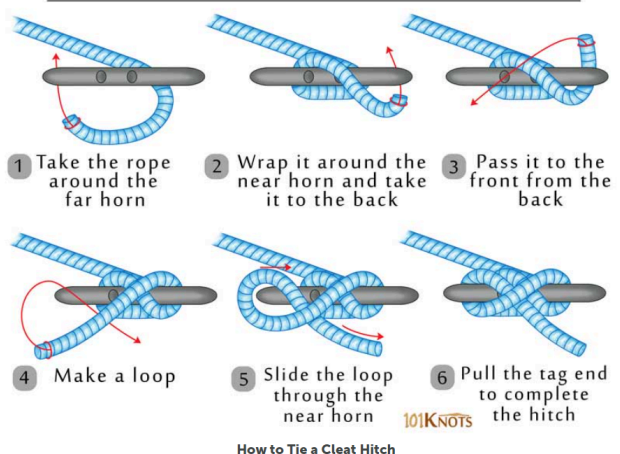
Clove Hitch Tutorial

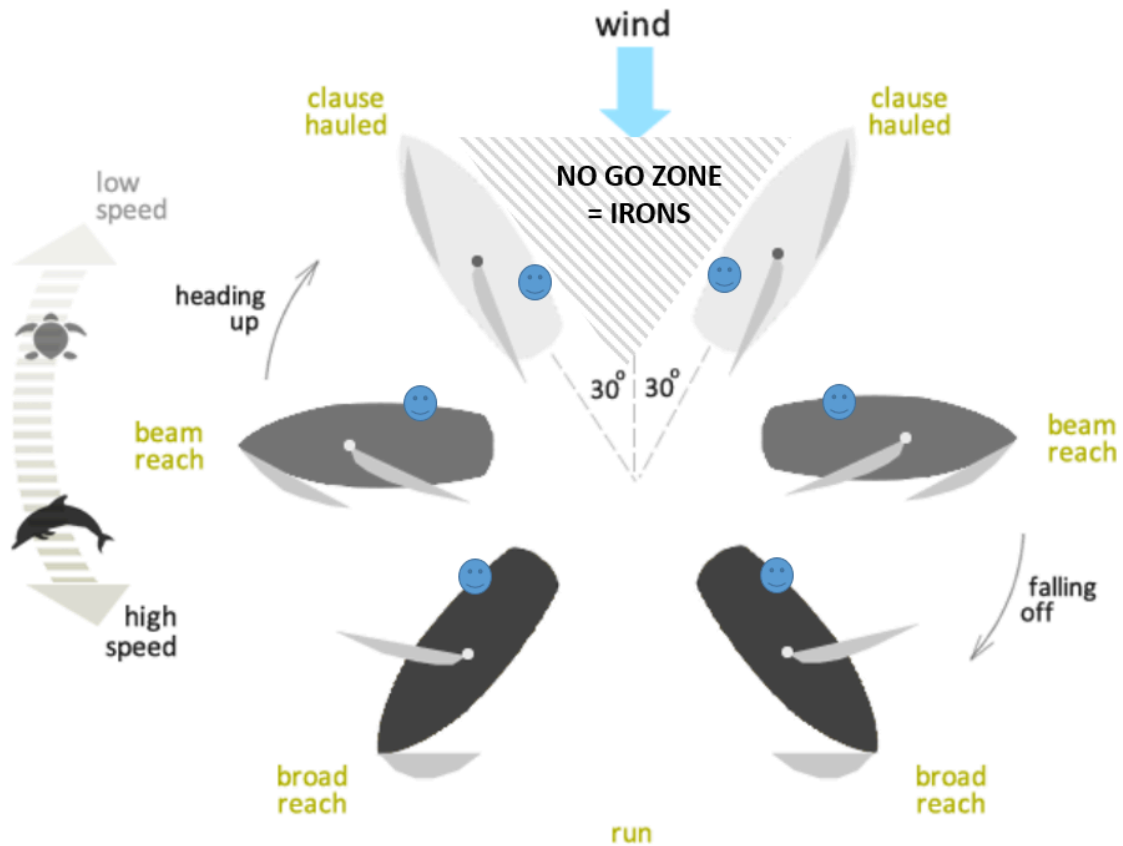


Bowline Knot Directions



Cleat Hitch Instructions





Terminology in sailing

- **Port** = Red = Left
- **Starboard** = Green = Right
- **Heel** = boat tipping
- **Bear away** = to steer the boat away from the wind
- **Head up** = to steer the boat closer to the wind
- **Windward** = the side of the boat where the wind first hits
- **Leeward** = the side of the boat where the wind exits
- **Luffing** = sail flapping in the wind
- **Tack** = to turn boat with the wind crossing the bow
- **Jibe** = to turn boat away with wind going through the stern

Feedback questionnaire

Please circle from 1 to 4 your experience:

1 = Strongly disagree, 2 = disagree, 3= agree, 4 = strongly agree

- Did you have fun? 1 2 3 4
comments:

- Would you sail again? 1 2 3 4
comments:

- Were the instructors friendly? 1 2 3 4
Comments:

- Was the equipment satisfactory? 1 2 3 4
Comments:

- Did you learn how to sail? 1 2 3 4
Comments:

- Would you recommend this class? 1 2 3 4
Comments:

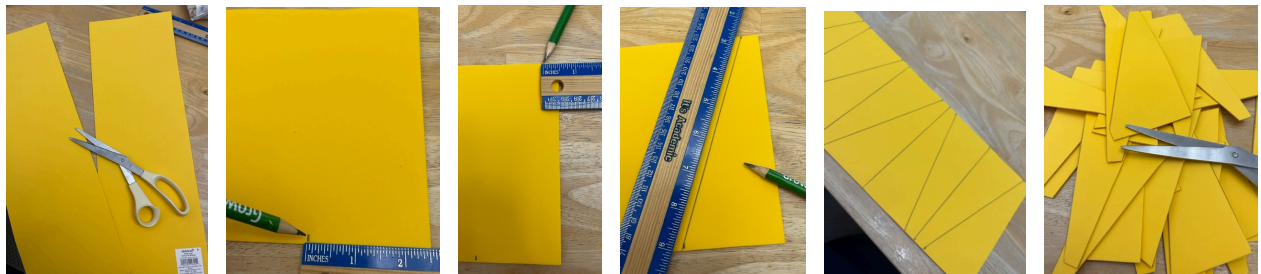
- Would you consider joining the IVY yacht club? 1 2 3 4
Comments:

- What improvements would you recommend?
Comments:

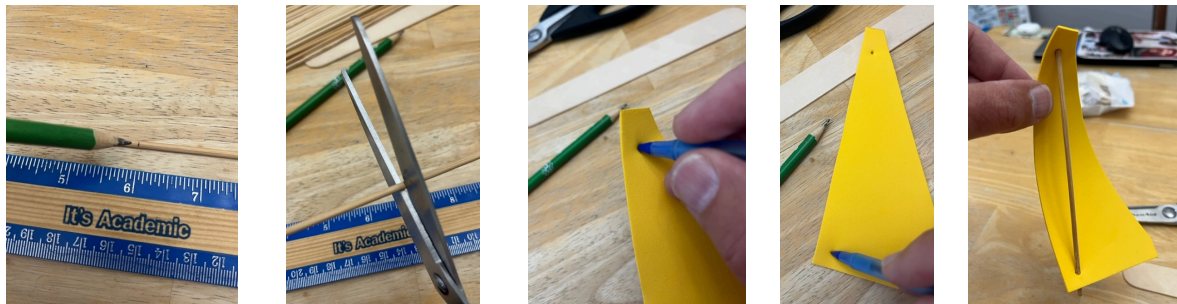
Craft sailing boat



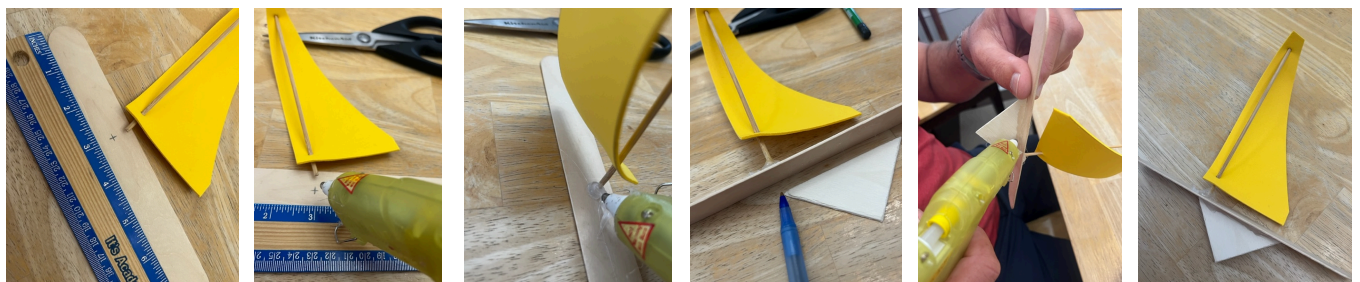
Scissors / Ruler / Pencil / 12" bamboo skewers / 8" Wood Craft sticks / Wood triangles / Glue gun / Foam sheet 12"x18"



Cut foam sheet in half and then measure and cut sails with 2"½ x ½" base and top



Cut bamboo skewers in half (6"), then using pencil or pen make two little holes in top and bottom of sail and then insert bamboo mast



Position mast 3" from front, then glue and hold until glue hardens. Position keel (triangle) edge under mast, then glue and hold until glue hardens. You can now put your boat in the water and blow on it or let the wind push it. You can adjust the sail to various points of sail.

Glossary of Sailing Vocabulary

Herein are definitions of the most commonly encountered sailing terms. The adults are encouraged to become familiar with the entire list, while the Pollywogs (young sailors) should become familiar with the definitions emboldened.

A

Abeam. At right angles (90 degrees) to the boat.

Aft. Toward the back of the boat (stern).

Alee. Away from the wind or leeward

Amidship. In the middle of the boat.

Angle of attack: The angle between the sail and the apparent wind (the wind on your face).

Apparent wind: The wind you feel when the boat is moving.

Astern: behind the boat.

B

Backstay: A line (stay) running from the upper part of the mast to the stern

Batten: A slat, usually plastic, in the leech, back, of a sail.

Beam: The greatest width of a boat.

Bear away: To turn away from the wind.

Beat: A close-hauled point of sail.

Bitter end: The end of a line or rope.

Block: A pulley; a pulley is a wheel with a grooved rim used to change the direction of a line.

Boat hook: A pole with a hook at one end.

Boltrope: A rope attached to the luff or foot of a sail.

Boom: **A spar, pole, used to carry or support the sail.**

Boom vang: A device that keeps the boom from lifting.

Bow: **The most forward part of the boat.**

Broach: An involuntary and abrupt change of the boats course into the wind, resulting in loss of directional control.

C

Cast off: To release a line.

Centerboard: A retractable device in the hull of the boat.

Center of effort: The point through which the resultant of all the wind forces on the boat's sails appear to act.

Center of lateral resistance: The point in the underbody of the hull that the hydrodynamic forces appear to act.

Chord depth: The deepest part of the sail.

Cleat: A device used to secure a line under strain.

Clew: The aft lower corner of a sail.

Close-hauled: **Also called beating is sailing as close to the wind as is efficient.**

Cringle: A reinforced eye in a sail.

Cunningham: A line, used to the tension along the luff of a main sail

D

Dagger board: **A vertically retracted centerboard. A dagger board is not hinged.**

Douse: To lower a sail.

Downhaul: A line that holds a spar or other object down.

Draft: The boat's depth below the water; or, the position and amount of the fullness in a sail.

E

Ease: **To let out a sheet.**

Eye: A loop.

F

Fairlead: A device, usually a ring or hook, to lead a line around an object.

Fender: A rubber bumper placed between a dock and the boat.

Fend off: to push away.

Fetch: To clear a mark of buoy.

Foot: The bottom edge of the sail; also, to sail slightly lower than close-hauled, resulting in some increase in speed.

Fore: Prefix meaning toward the bow.

Foresail: A jib or genoa; also known as a headsail.

Forestay: A stay running from the bottom of the foredeck up to a point on the mast to which a jib or genoa is attached.

Forward: Toward the front of the boat, the bow.

Freeboard: The distance from the water to the deck.

Furl: To roll up and secure a sail.

G

Genoa: A large foresail that overlaps the mast.

Give-way boat: The boat that does not have the right of way.

Gooseneck: A fitting used to secure the forward end of the boom to the mast.

Grommet: A small metal ring located on a sail.

Guy: A line that controls the position of the spinnaker pole. The after guy pulls the pole aft or forward and the fore guy controls the vertical height of the pole.

H

Halyard: The line used to hoist a sail.

Hank: A small clip used to attach jib or genoa's luff to the headstay.

Head: The top corner of a sail.

Header: A change in wind direction, possibly causing the helmsperson to turn downwind or tack.

Head off: To bear off or bear away; to alter the course to leeward.

Headsail: A jib or genoa.

Headstay: A stay running from the bottom of the foredeck up to a point on the mast to which a jib or genoa is attached.

Head-to-wind: The bow pointing directly into the wind.

Head up: To sail closer to the wind.

Headway: To make forward progress.

Heave-to: To almost stop a boat under sail.

Heel: Term used when the boat leans over, athwartship, in the water.

Helm: The tiller or steering wheel. The term is also used to describe the tendency of a boat to head up (weather helm) or head off (lee helm) the wind.

Helmsman: The boat's steerer.

High: Sailing a few degrees above the designated or best course.

Hike: To lean over the windward side of the boat to help level the boat. Sometimes the boat is rigged with a hiking strap to secure the crew person's feet.

Hull: The boat's shell.

Hull speed: The vessel's theoretical fastest speed.

I

In-irons: Attempting to sail head-to-wind, but not making headway.

J

Jib: A sail carried on the forestay or headstay and smaller than a genoa.

Jibe: A downwind turn in which the sails move across the boat.

Jury rig: To provide a temporary replacement for damaged equipment.

K

Keel: An appendage on the bottom of a boat lateral area and ballast,

Knockdown: An increase in the angle of heel such that the boat is laying on its side in the water.

Knot: A nautical mile per hour. One knot equals 1.151 mph. A knot is also an interlacing, twining, or looping of a line.

L

Lead: A block for a sheet or to pass a line through a block or fairlead.

Leeward: Downwind.

Leech: The back edge of a sail or both sides of a spinnaker.

Lee helm: The tendency of a boat to head away from the wind.

Leeway: A boats tendency to slip to leeward.

Lifeline: Usually a coated line above the deck to help keep crew on board.

Lift: A wind shift that permits the helmsperson to steer up.

Line: Rope that has a defined purpose.

Luff: The forward or front edge of a sail. Also, luffing is the flapping of a sail due to improper trimming or steering.

M

Mainsail: The sail hoisted on the backside of the mast.

Make fast: To secure a line.

Mast: The vertical spar to which the mainsail is attached.

Masthead fly: A wind direction indicator located at the top of the mast. This device is often referred to as a Windex, a patented commercial product.

N

No-go-zone: The angle with the wind in which the boat will not sail because the sails will not fill.

O

Off the wind: Sailing on a reach or a run.

Outhaul: A line used to adjust the tension on the clue of the mainsail.

Overstand: To pass a mark with room to spare.

Overtake: To begin to approach or pass a boat from astern.

P

Padeye: A loop to which shackles or blocks are affixed.

Pay out: To let out or ease a line.

PFD: Personal flotation device.

Pinch: To sail too high or too close to the wind.

Points of sail: Sailing close hauled, reaching, or running.

Port side: The left side of the boat when facing forward.

Puff: A momentary increase in the winds velocity.

Pulpit: Usually a stainless steel guardrail located around the bow and stern of the boat.

R

Rail: The outermost edge of the deck.

Reach: To sail between close-hauled and directly down wind.

Reef: To decrease the sail's area.

Rig: To get a boat ready to sail. Also, the parts of the boat including, the sails, spars, stays, shrouds, etc.

Right of way: When you are on the same tack as the other boat, the leeward boat has the right of way. When you are on opposite tacks, the starboard boat has the right of way. When overtaking another boat, she has the right of way.

Roach: The area of the sail aft of a line drawn between the head of the sail and the clew.

Rudder: A part of the steering apparatus usually located at the boat's aft and partially underwater.

Run: The wind coming from astern.

S

Sail tie: A strap used to secure a rolled sail.

Shackle: A metal device used to secure a line to an object

Sheave: The movable roller in a block.

Sheet: The main sail control line. It is used to bring in or let out the sail.

Shroud: A side stay usually used to secure the mast.

Spar: The mast, boom, or spinnaker pole.

Spinnaker: A lightweight large area blooming foresail used to sail downwind on reaches or runs.

Spreader: A strut used to hold the shrouds away from the mast.

Stanchion: Metal posts that support the lifelines.

Stand-on-boat: The boat with the right-of-way.

Starboard: Facing forward, it is the right side of the boat.

Stay: A wire supporting the mast.

Steerageway: The amount of speed through the water needed for steering.

Stern: The most aft part of the hull.

T

Tack: Port tack, wind coming over the port side of the boat; starboard tack, wind coming over the starboard side of the boat. To tack means to pass from one tack to the other, requiring the boat to pass through head-to-wind.

Tail: To pull on a halyard or sheet using a winch.

Telltale: A piece of light material, i.e., yarn or recording tape, tied to a shroud or sail to provide information about wind direction and sail trim.

Topping lift: A line that holds up the boom or spinnaker pole.

Traveler: A device, attached to the boom that allows it to be positioned from side to side without easing the main sheet.

Trim: To pull in a sheet, or to adjust the sails.

True wind: The direction and force of the wind felt by a stationary object.

Twist: The amount of sag in a sail's leech related to an imaginary line between its head and clew.

U

Upwind: Sailing into the wind.

V

Vang: The boom vang is used to control boom height when sailing on a reach.

Veer: A veer occurs when the wind shifts clockwise.

W

Wake: The water turbulence caused by a moving boat.

Weather helm: the tendency of a sailboat to head up into the wind,

Winch: A device providing mechanical advantage used to tighten sheets and halyards.

Windward: Upwind.

Wing-on-wing: Sailing on a run or dead down wind with the main and foresail on opposite sides of the mast.

**ILLINOIS VALLEY YACHT & CANOE CLUB
SAILING INSTRUCTION WAIVER AND RELEASE OF LIABILITY
AND ASSUMPTION OF RISK AGREEMENT**

The undersigned Illinois Valley Yacht and Canoe Club student assumes and understands that sailing is a potentially hazardous sport; that grounding, accidental jibes, man overboards and equipment failures occur from time to time without warning; and that variations in wind and lake conditions, water traffic, submerged obstructions, and other hazards to navigation exist.

In using the Illinois Valley Yacht and Canoe Club equipment or facilities or participating in sailing instruction at the Illinois Valley Yacht and Canoe Club, the undersigned recognizes and accepts such dangers, and assumes full responsibility for such risks, and holds the Illinois Valley Yacht and Canoe Club and/or their officers, employees, or agents harmless against any and all bodily injury, and/or property damages resulting from such risks.

Signature

Date

Please Print Name

Parent or Legal Guardian Signature (if student is under 18)

Date

Please Print Name