

Learn to Sail

UNIT 5: AFTER YOUR FIRST SAIL



AFTER YOUR FIRST SAIL

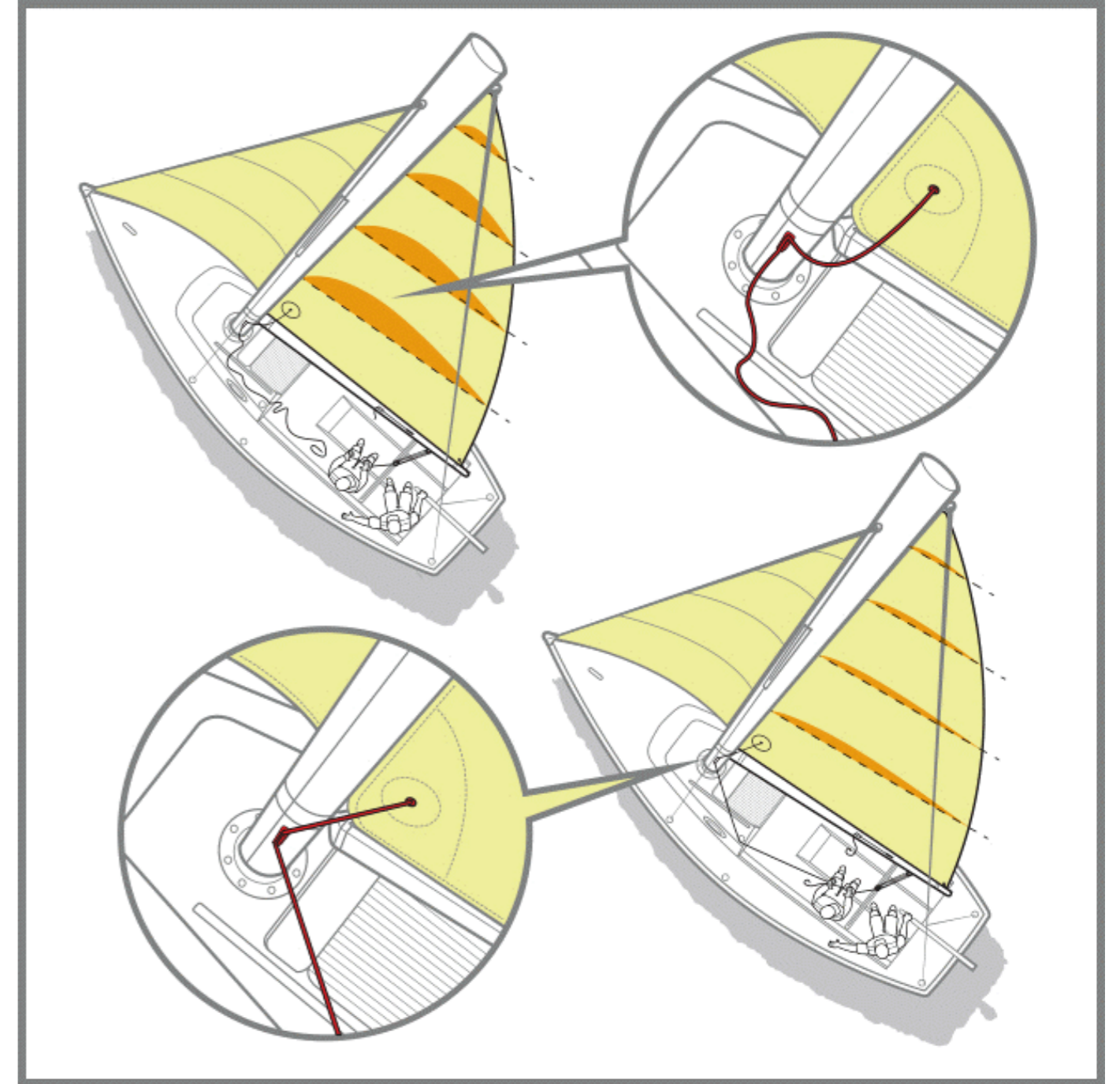
By the end of this unit, you will know:

- Adjusting the shape of your sail for high or low winds
- Different angles you can use when tacking and jibing
- The concept of balance and steering without your sails
- More advanced examples of leaving and returning to the dock
- How to respond to wind shifts
- Line coiling and heaving
- How to tie some of the most common sailing knots



ADJUSTING SAIL SHAPE

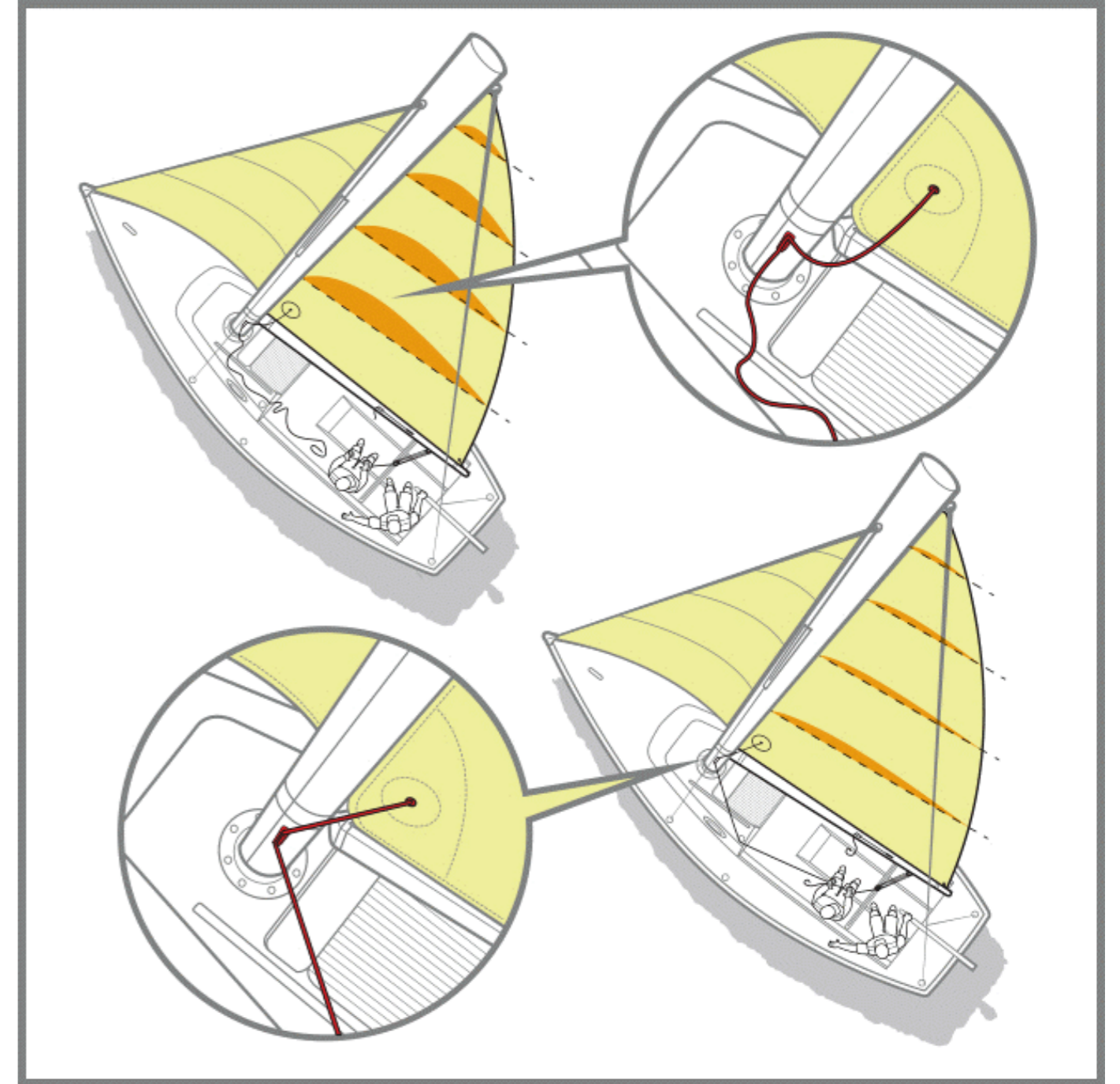
You adjust the shape of your sail using the **cunningham**, which tensions the luff of the sail, and the **outhaul**, which tensions the foot of the sail.



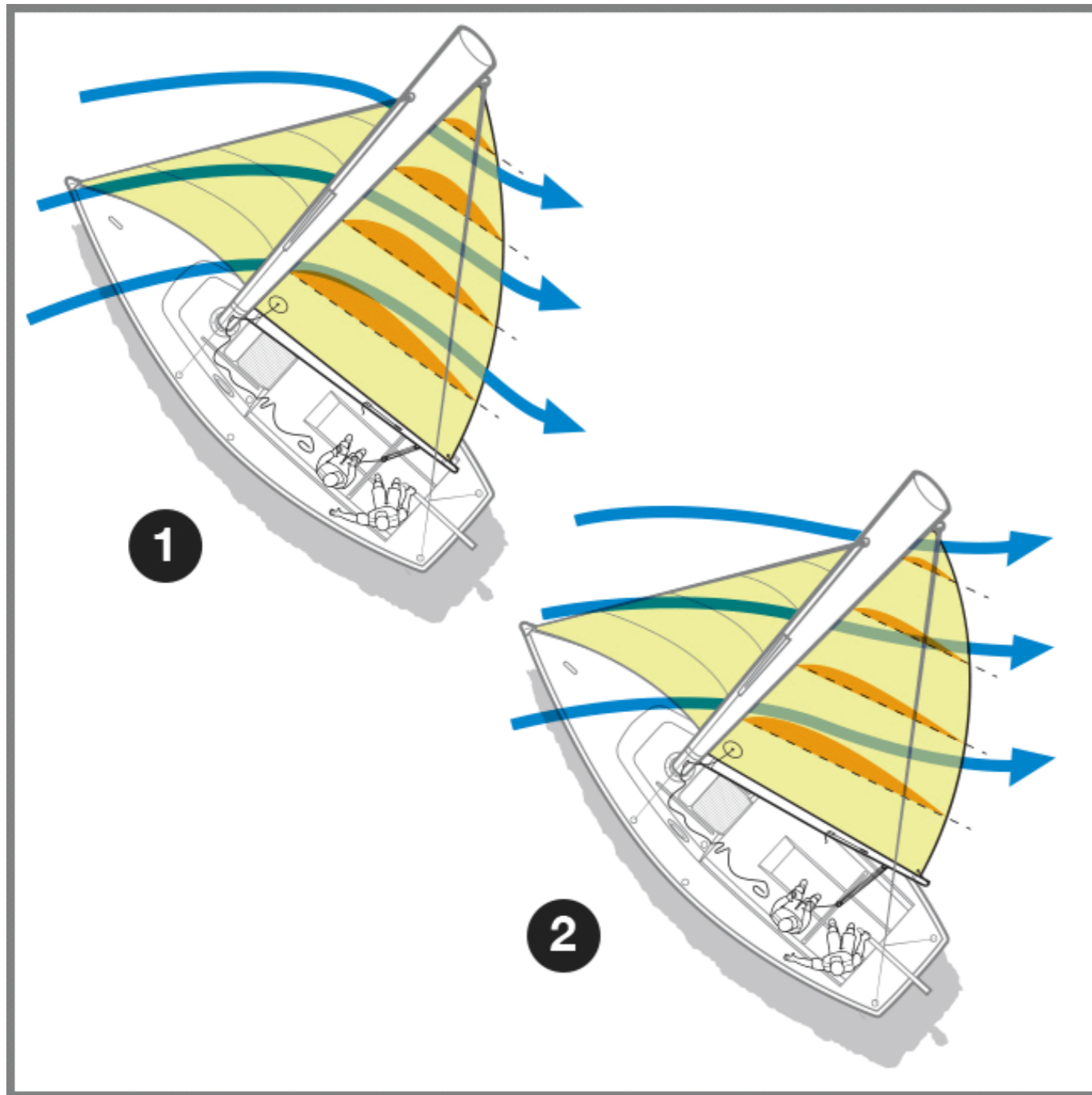
ADJUSTING SAIL SHAPE

To **power up** your sail ease the cunningham and outhaul.

To **depower** your sail tighten the cunningham and outhaul.

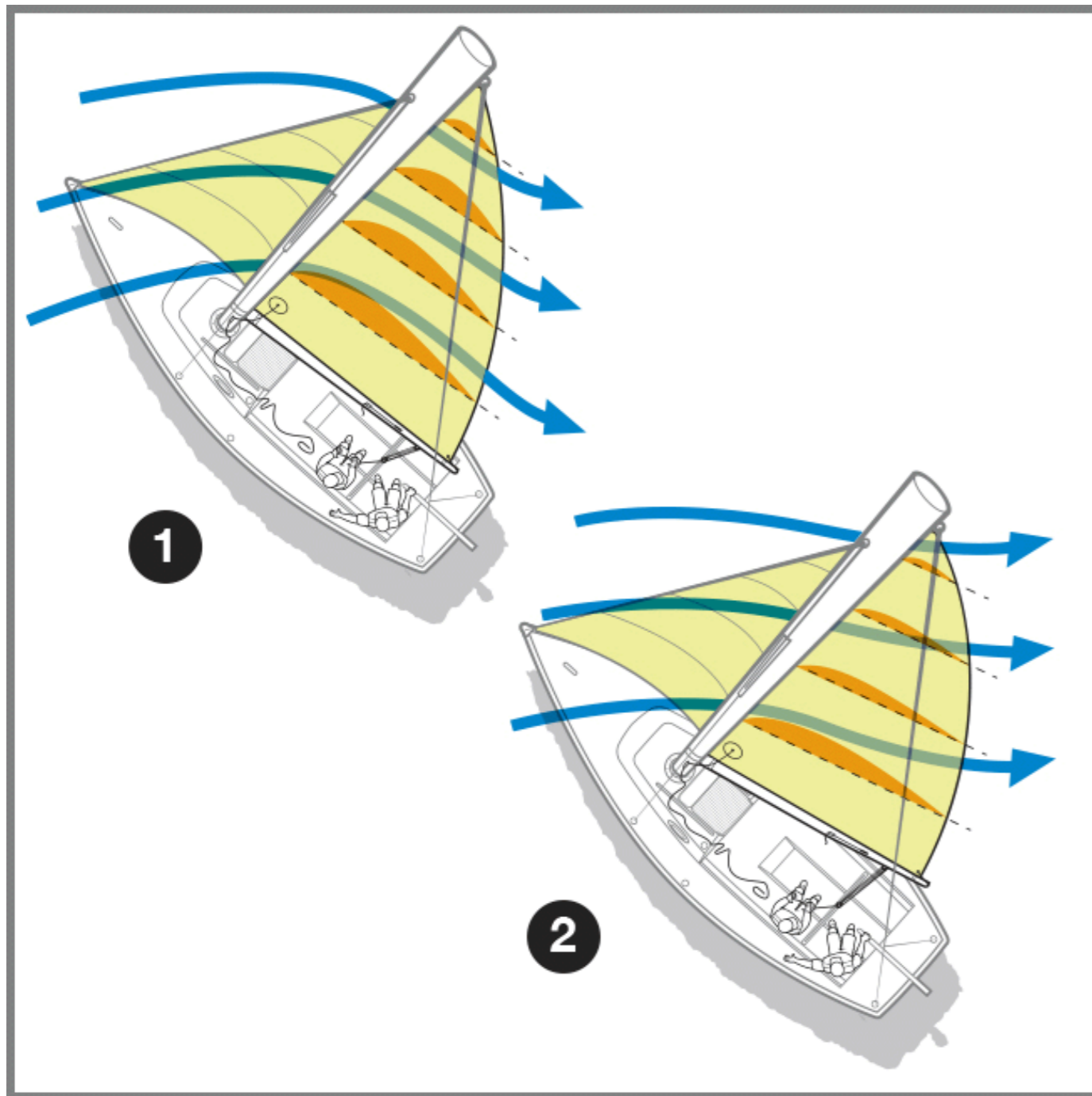


DEPOWERING YOUR SAILS



The easiest way to depower your sails is simply by easing out the mainsheet a bit. This causes the boom to rise and move to leeward, providing less sail surface for the wind.

DEPOWERING YOUR SAILS

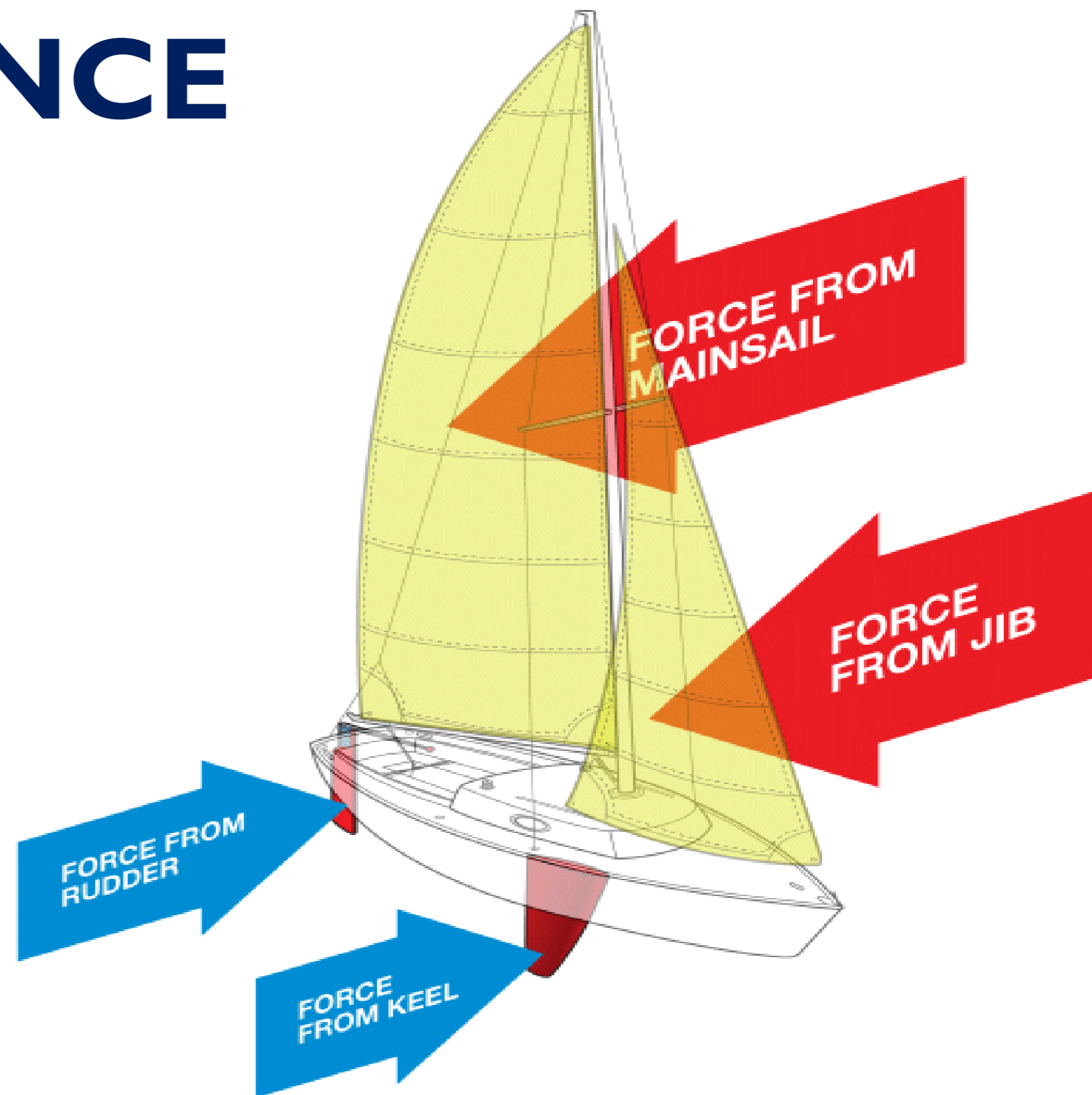


For even greater depowering, you can ease the traveler. This allows the entire sail to rotate away from the wind, further decreasing pressure on the sail.

BALANCE

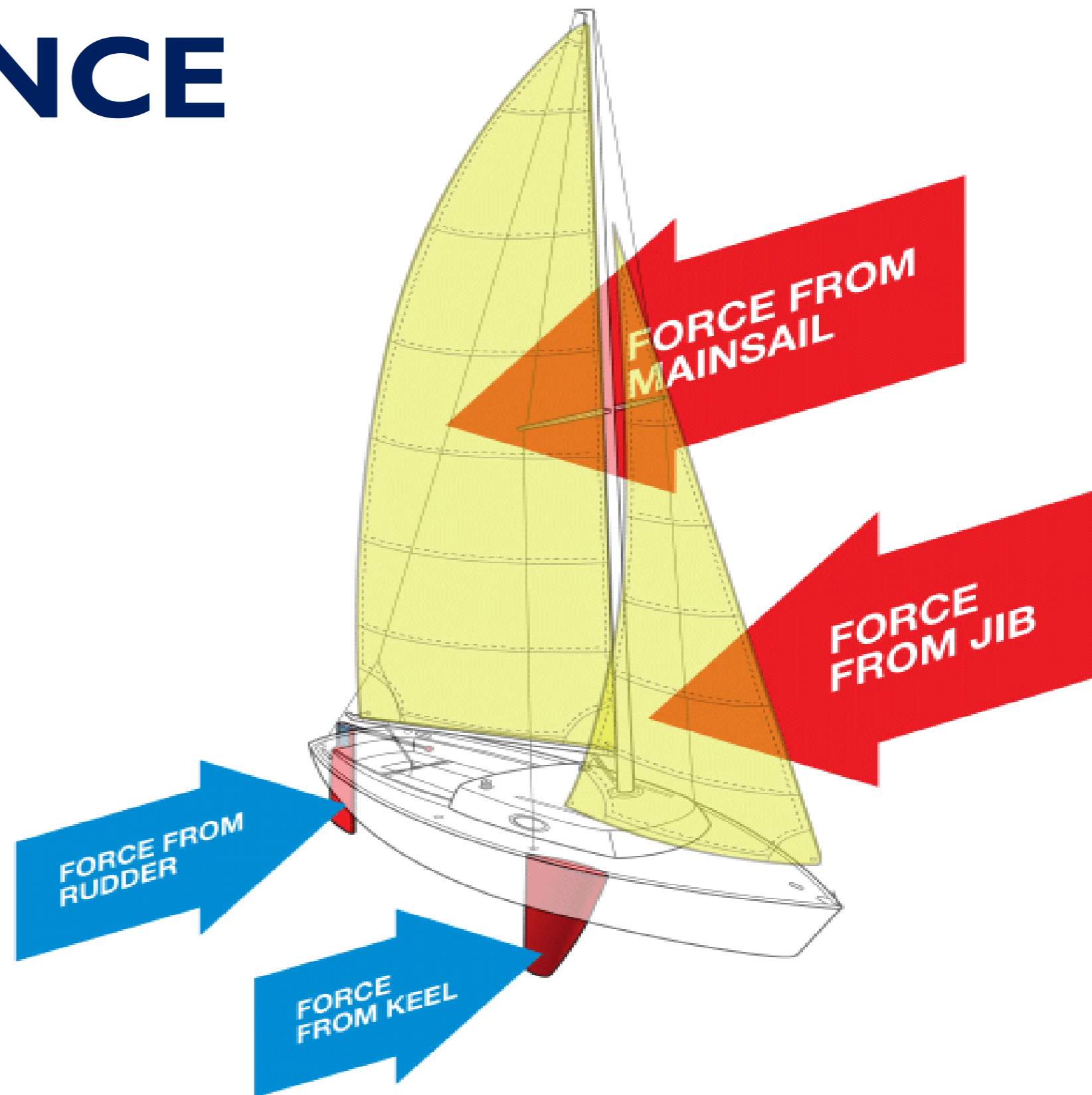
When forces are in balance, your boat will sail forward in a straight line.

When forces are out of balance, your boat will want to turn.



BALANCE

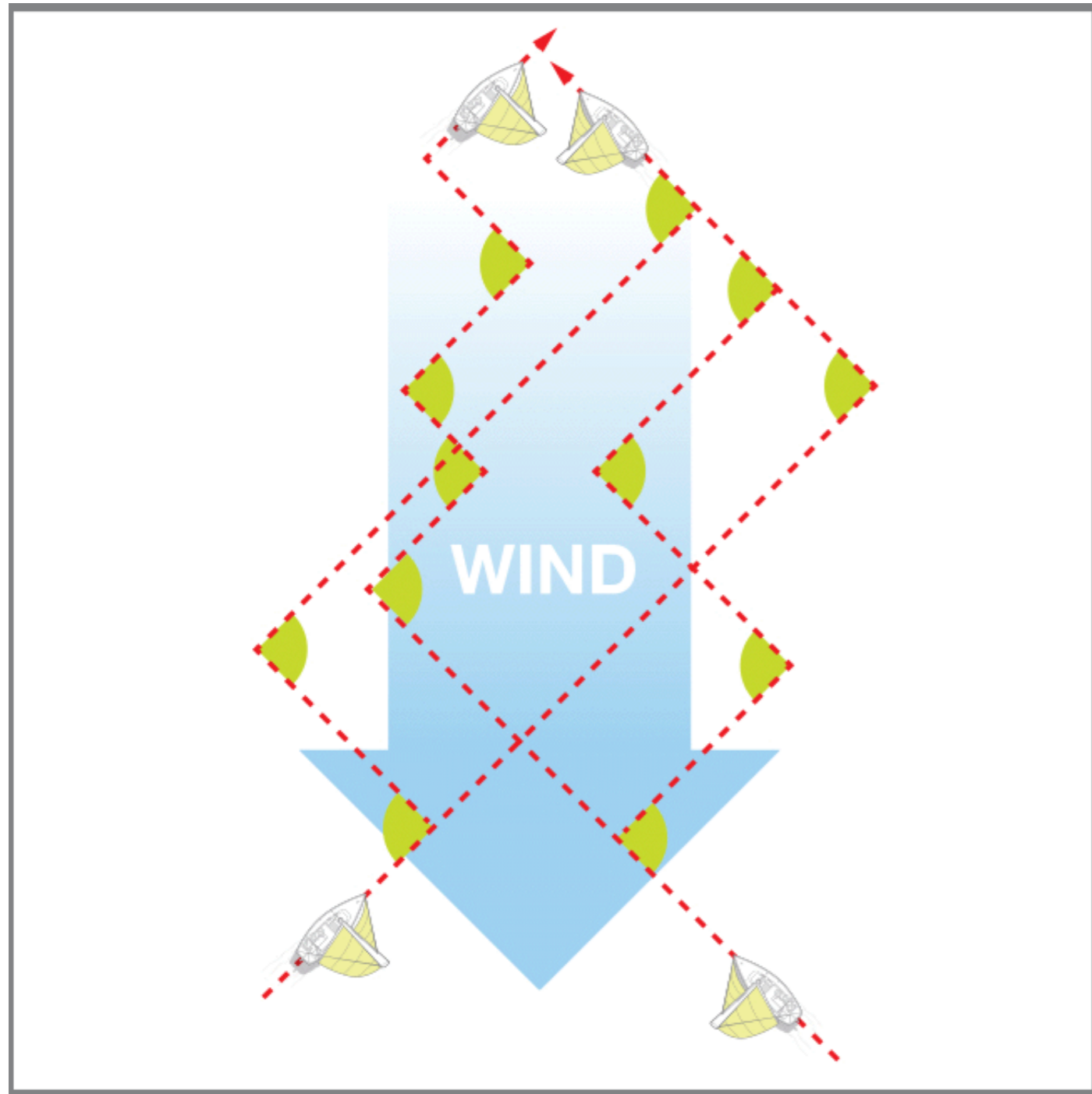
Because forces are always changing, and never exactly equal, you will constantly need to make small adjustments as you sail to keep your boat balanced and on course.



TACKING ANGLES

The angle of your tack should always be about 90 degrees.

To estimate the direction of your next tack, look toward the windward side of the boat, along a line perpendicular to the centerline of the boat, and pick out a landmark that you can steer to.

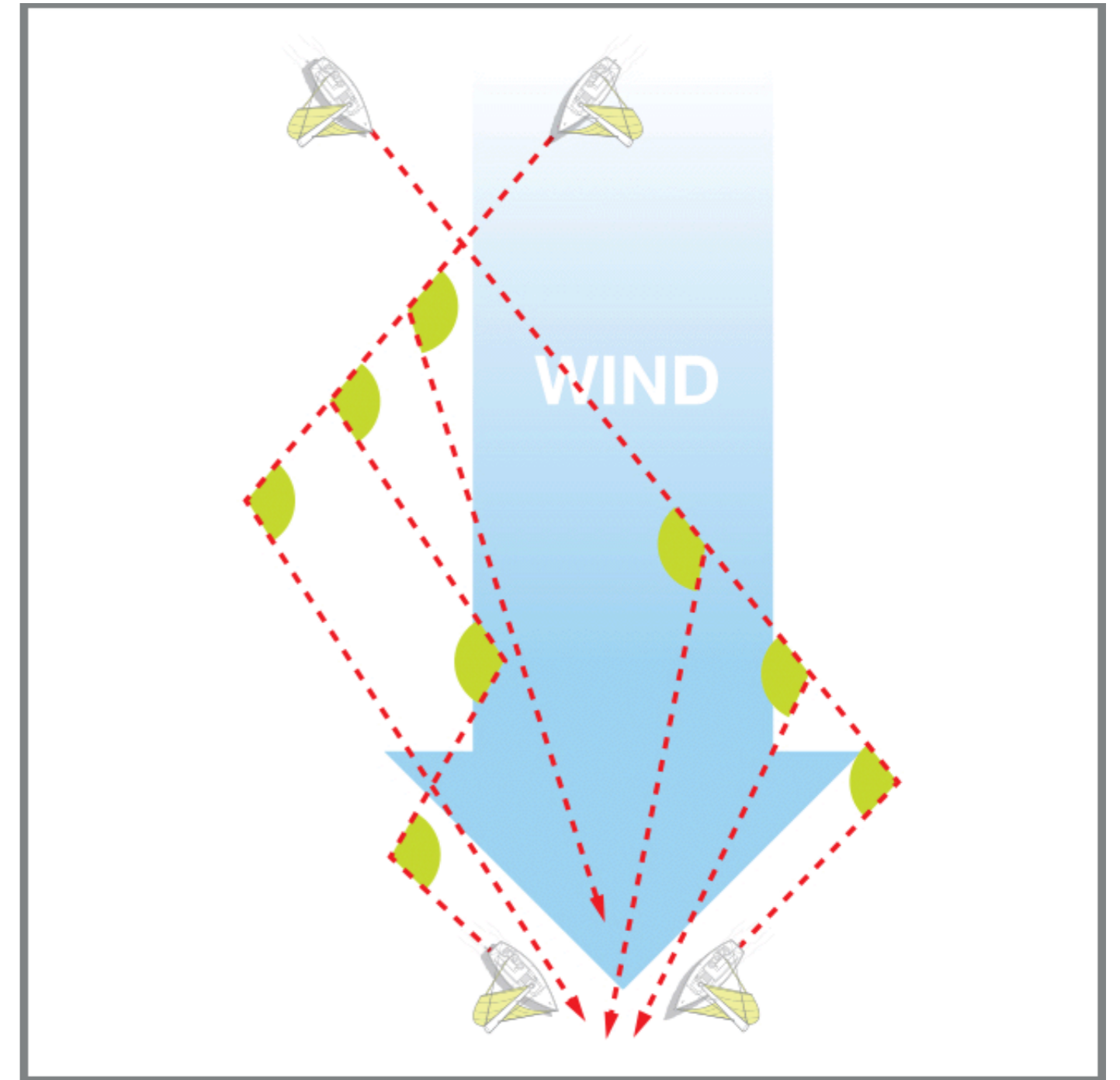


JIBING ANGLES

Every angle does not need to be 90 degrees when sailing downwind.

This is because the wind is coming from behind and you do not have to turn across the No-Go Zone.

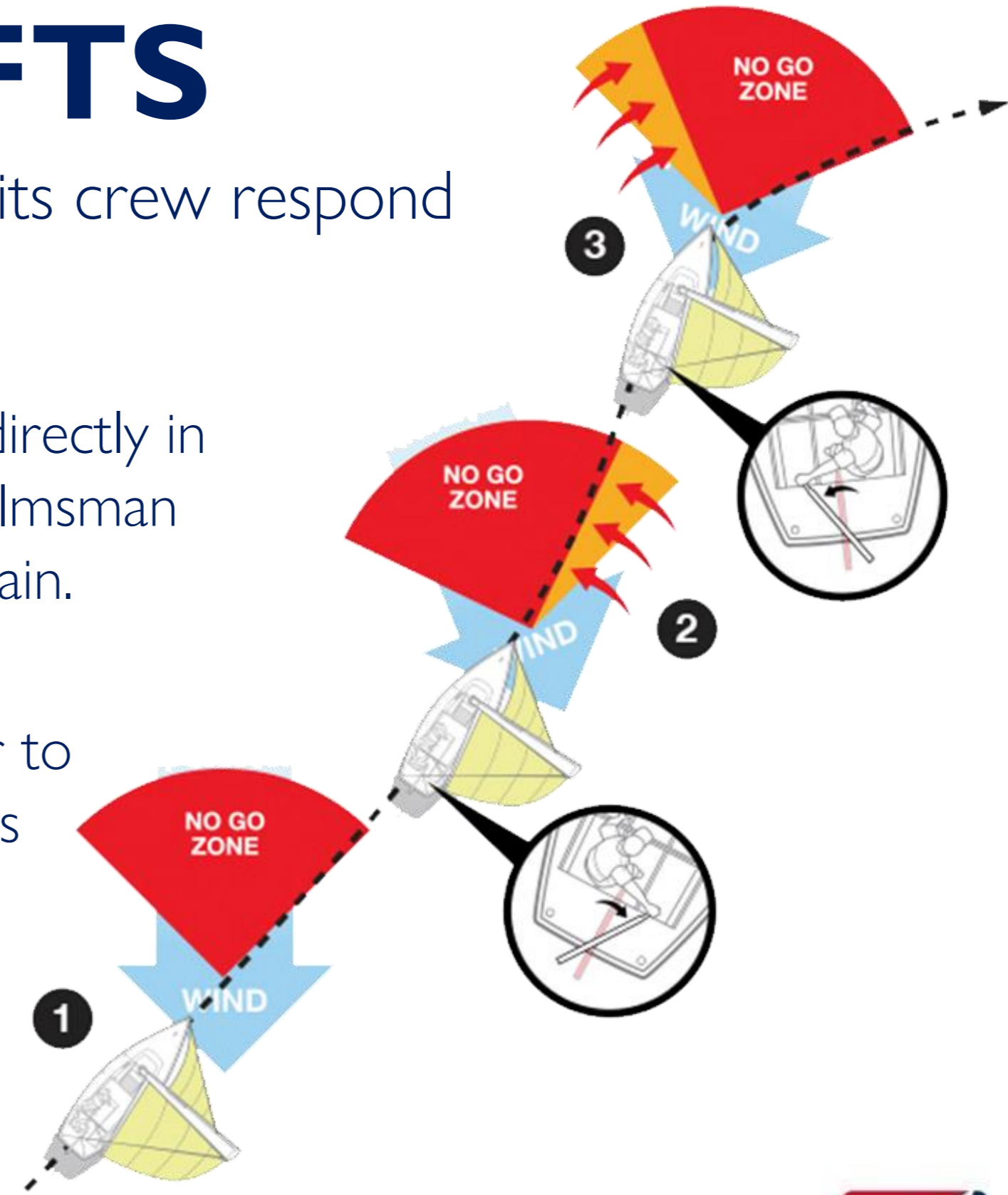
It is still a good idea to keep the wind coming over one side of the boat or the other.



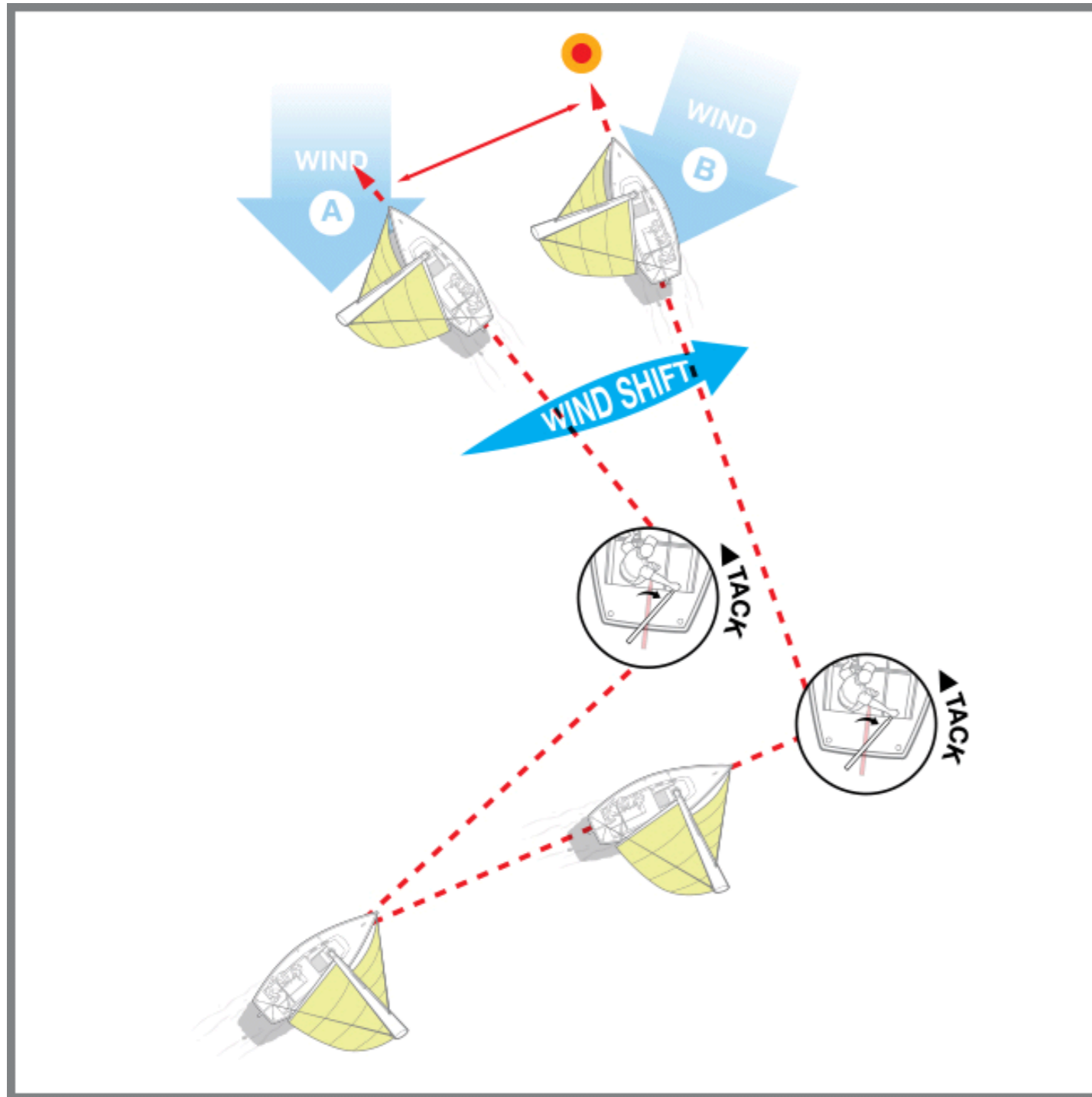
WIND SHIFTS

In the illustration on this page, we can see a boat and its crew respond to changes in the wind.

3. The wind has shifted forward, moving the No-Go Zone directly in front of the boat. To keep the boat from stopping the helmsman bears away to starboard until the boat is in the groove again.
2. The wind has shifted aft, shifting the No-Go Zone further to port. To stay in the groove the helmsman heads up, in this case turning to port to head more directly into the wind.
1. The boat and its crew are sailing upwind, in the groove.



WIND SHIFTS AND DISTANCE

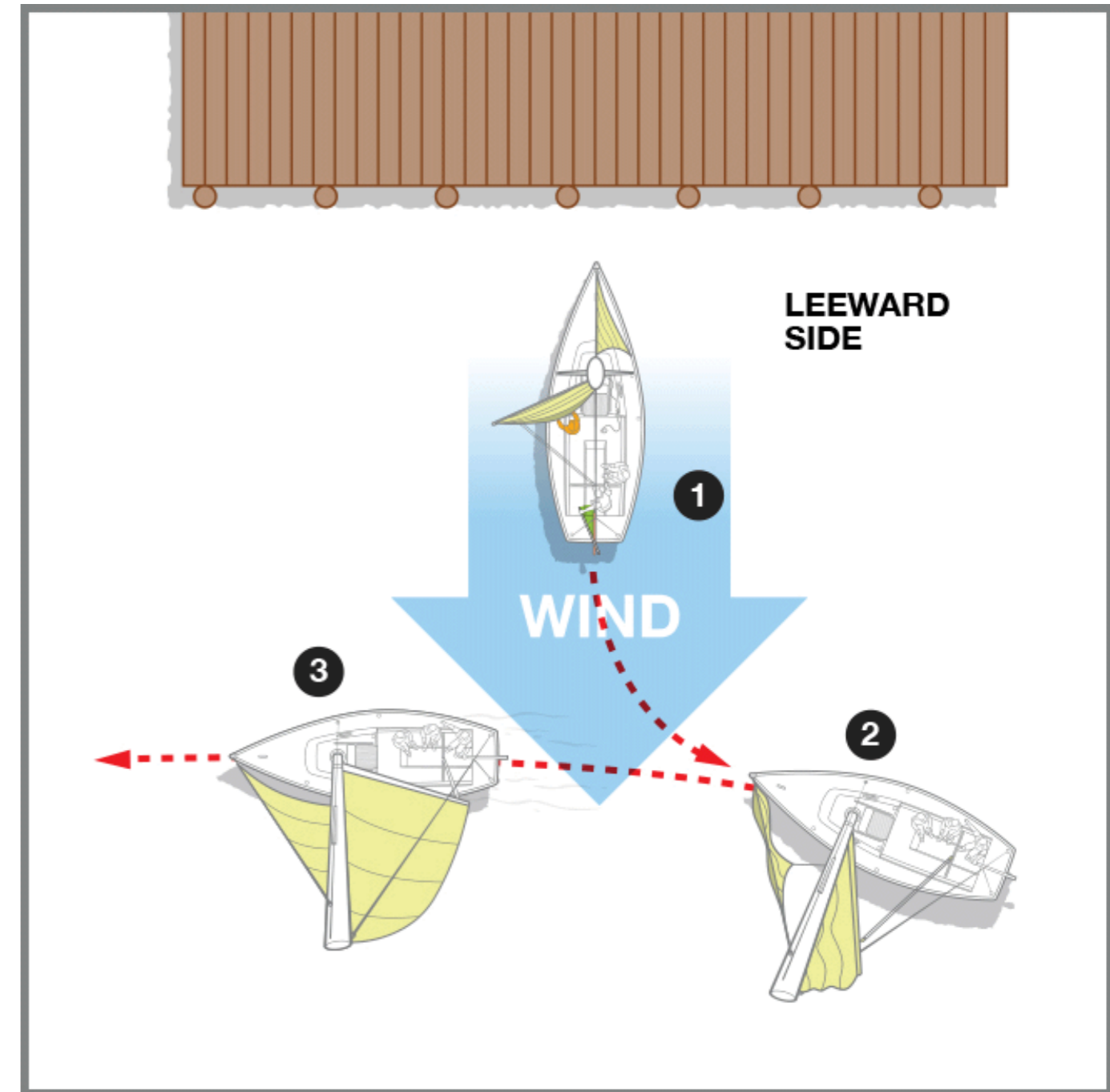


Headers and lifts can shorten or lengthen the distance to your destination upwind.

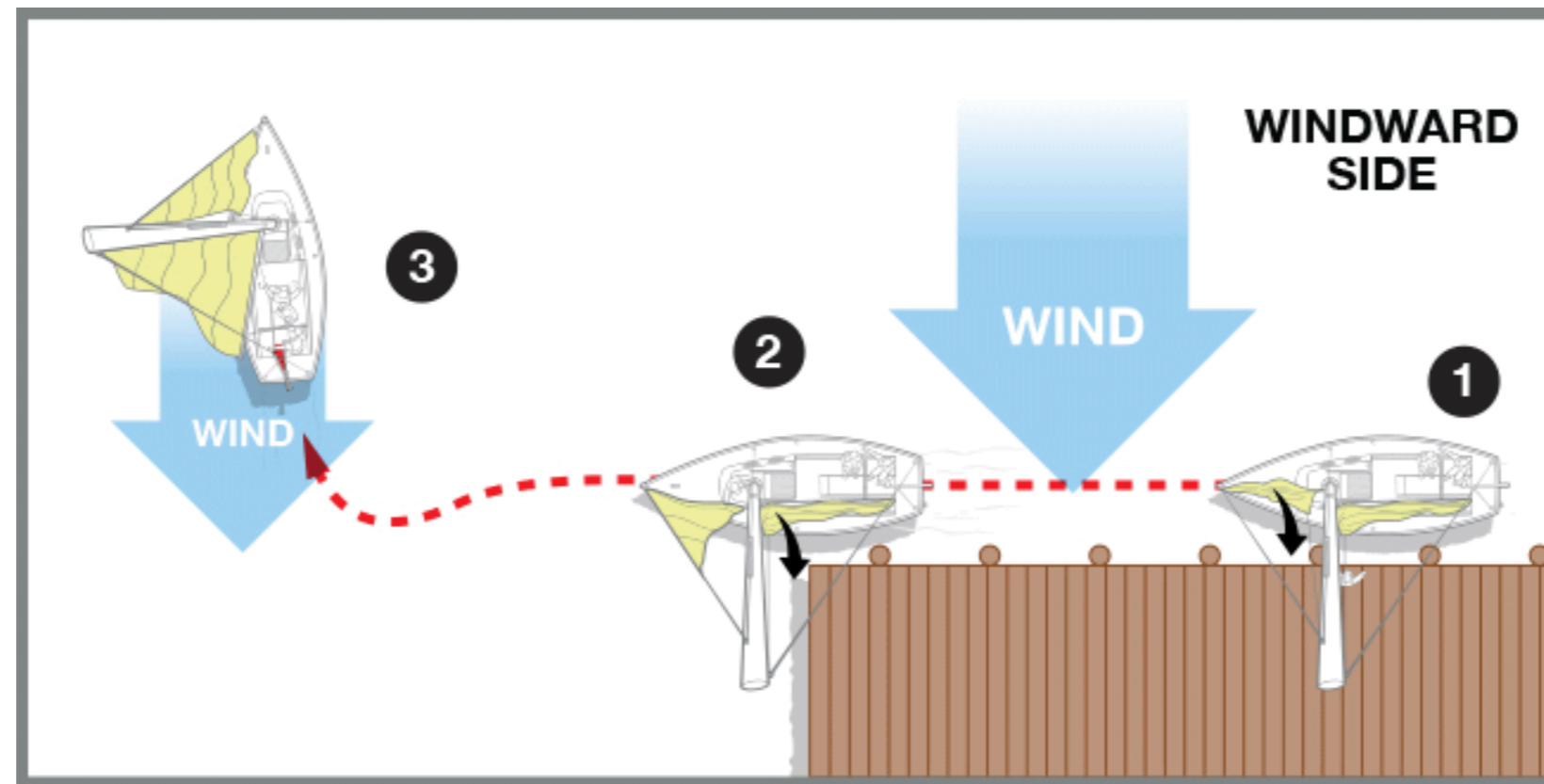
Here we see an example where a header – a wind shift that forces a boat to bear away – shortens the distance to an upwind destination.

LEAVING THE DOCK - BACKWARDS DEPARTURE

1. Push your boom out all the way on the side you want to turn to the bow to turn.
2. Back the jib by pushing and holding out the jib on the opposite side of the boat. Keep the tiller centered. The boat will sail backward.
3. Once the boat has cleared the dock, turn the tiller toward the mainsail – to the side you want the bow to turn. The boat turns out of the No-Go Zone.
4. When the boat has turned out of the No-Go Zone and is pointed in the direction you want to go, release the jib from its backed position and sheet it in on the same side as the mainsail. Trim the mainsail, center the tiller and you're off!



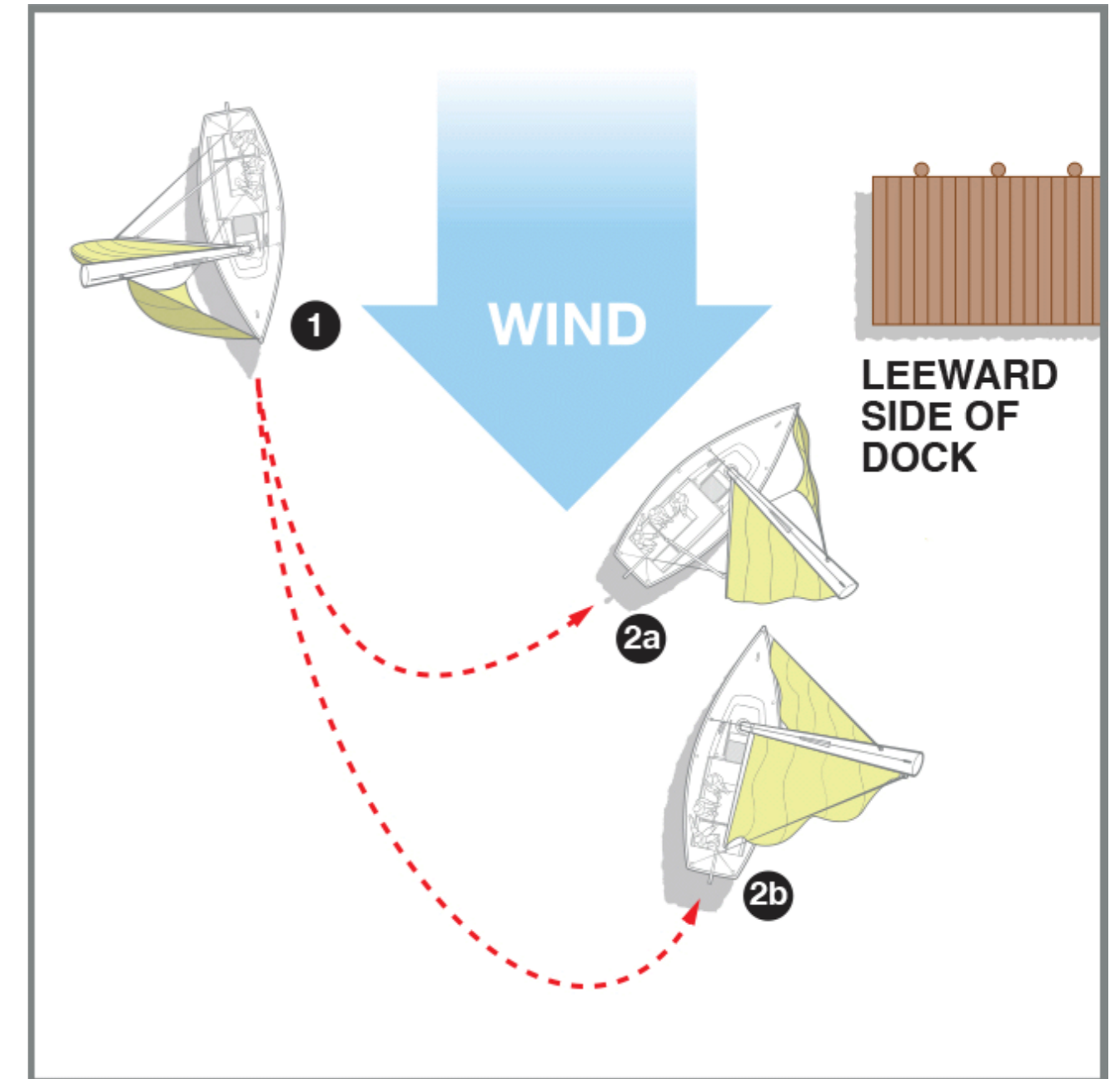
LEAVING THE DOCK - WINDWARD SIDE DEPARTURE



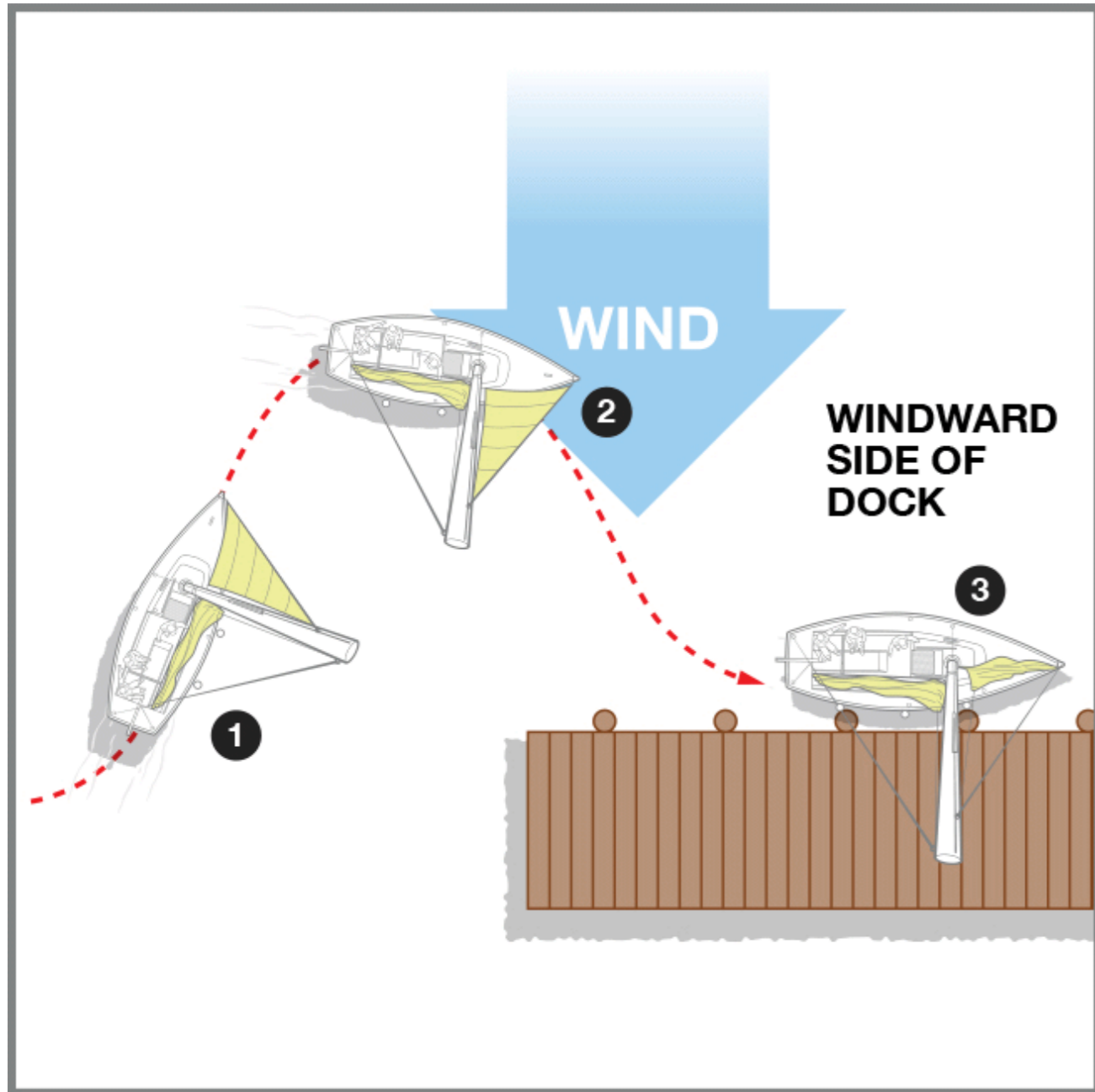
1. Start with your sails lowered, but ready to be hoisted quickly. Now move your boat to the end of the dock.
2. At the end of the dock, raise the jib and push the boat away from the dock. Once you have cleared the dock, sheet in the jib half way to get the moving forward.
3. When the boat has enough speed, turn your boat into the wind and hoist the mainsail. Trim the mainsail and steer to your course.

RETURNING TO THE DOCK - DOWNWIND APPROACH

1. Sail downwind until your boat is three to six boat lengths past the dock.
2. Turn toward the dock with your sails luffing and coast to a stop on the leeward side of the dock.
3. Alternatively, as shown in 2b, you can turn more sharply, directly into the No-Go Zone.



RETURNING TO THE DOCK - WINDWARD SIDE APPROACH



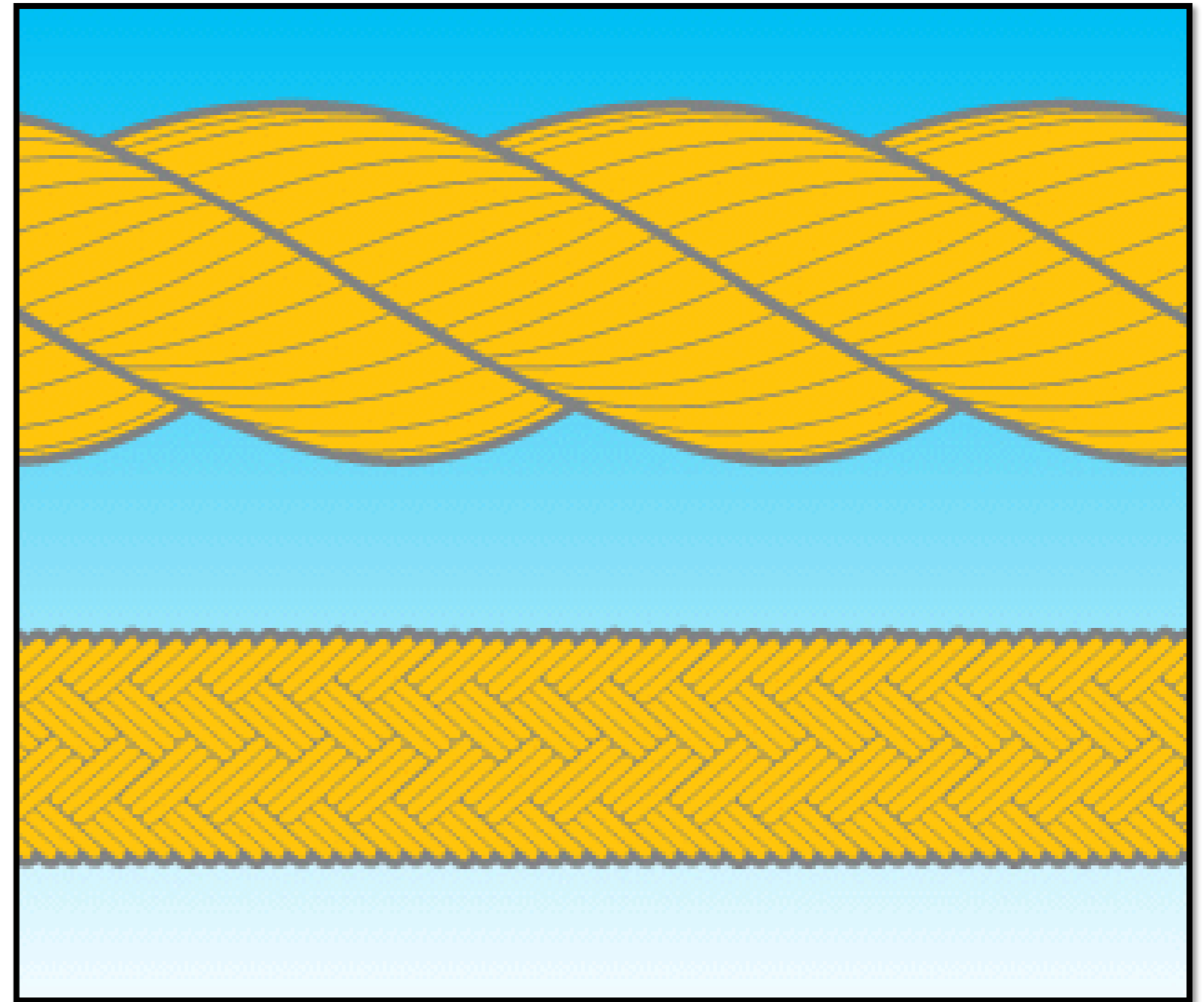
1. About 4 to 5 boat lengths from where you want to land, turn up into the wind and drop your mainsail. Stow the sail so it is out of the way.
2. With your mainsail lowered, turn downwind, using your jib to adjust your speed.
3. As you near the dock, luff the jib completely. A crew member should be ready with bowline in hand to step off the dock and slow the boat if necessary by placing a turn around a dock cleat.

KNOTS & LINES

There are two main types of lines: laid line and braided line.

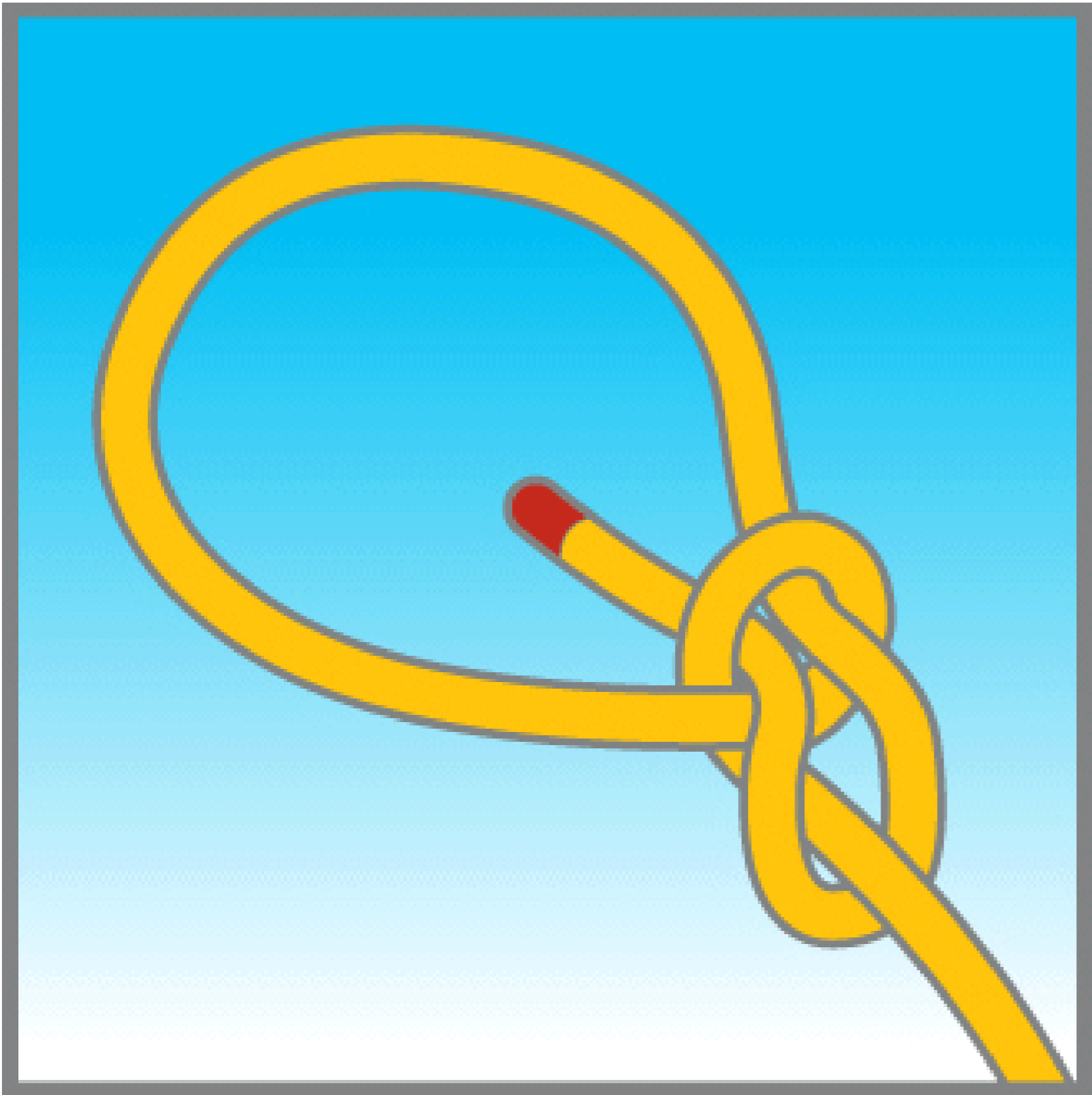
Laid line consists of three large strands twisted around one another. Laid line stretches, making it excellent for anchor rode and dock lines, but it can also be rough on the hands.

Braided line is made of Dacron™. It is flexible and easier on the hands. Braided line is used for halyards and sheets.



BOWLINE

1. Make a small loop by crossing the end over the standing part of the line where you want the knot to be.
2. Run the end up through the loop you just made, around the standing part, and back down through the loop.
3. Tighten the knot snugly, making sure it holds and that the loop does not slip.



THE BOWLINE

FIGURE 8

1. Pass the end over the standing part of the line, creating a loop.
2. Bring the end back under the standing part.
3. Pass the end down through the loop and tighten the knot.

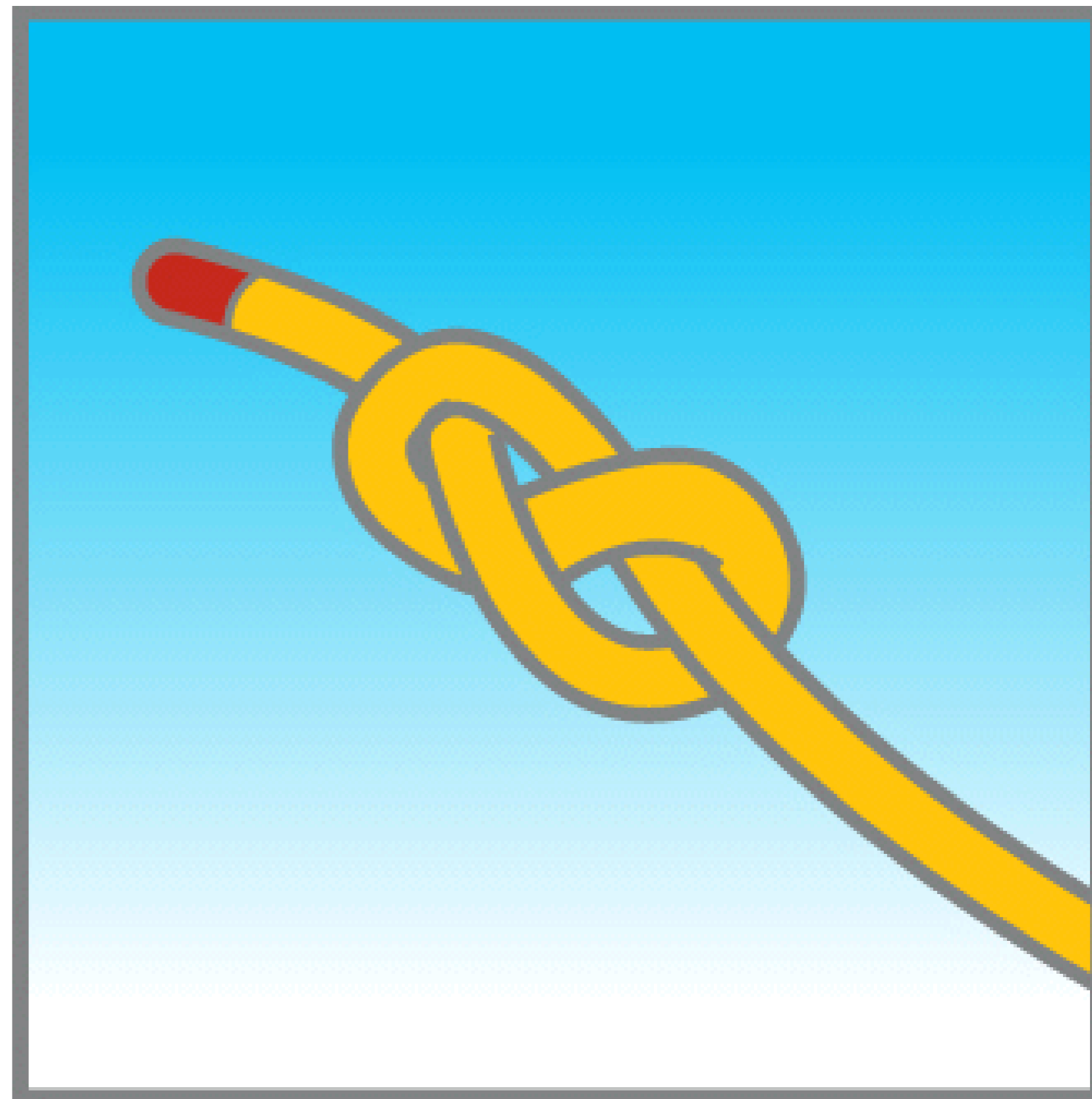
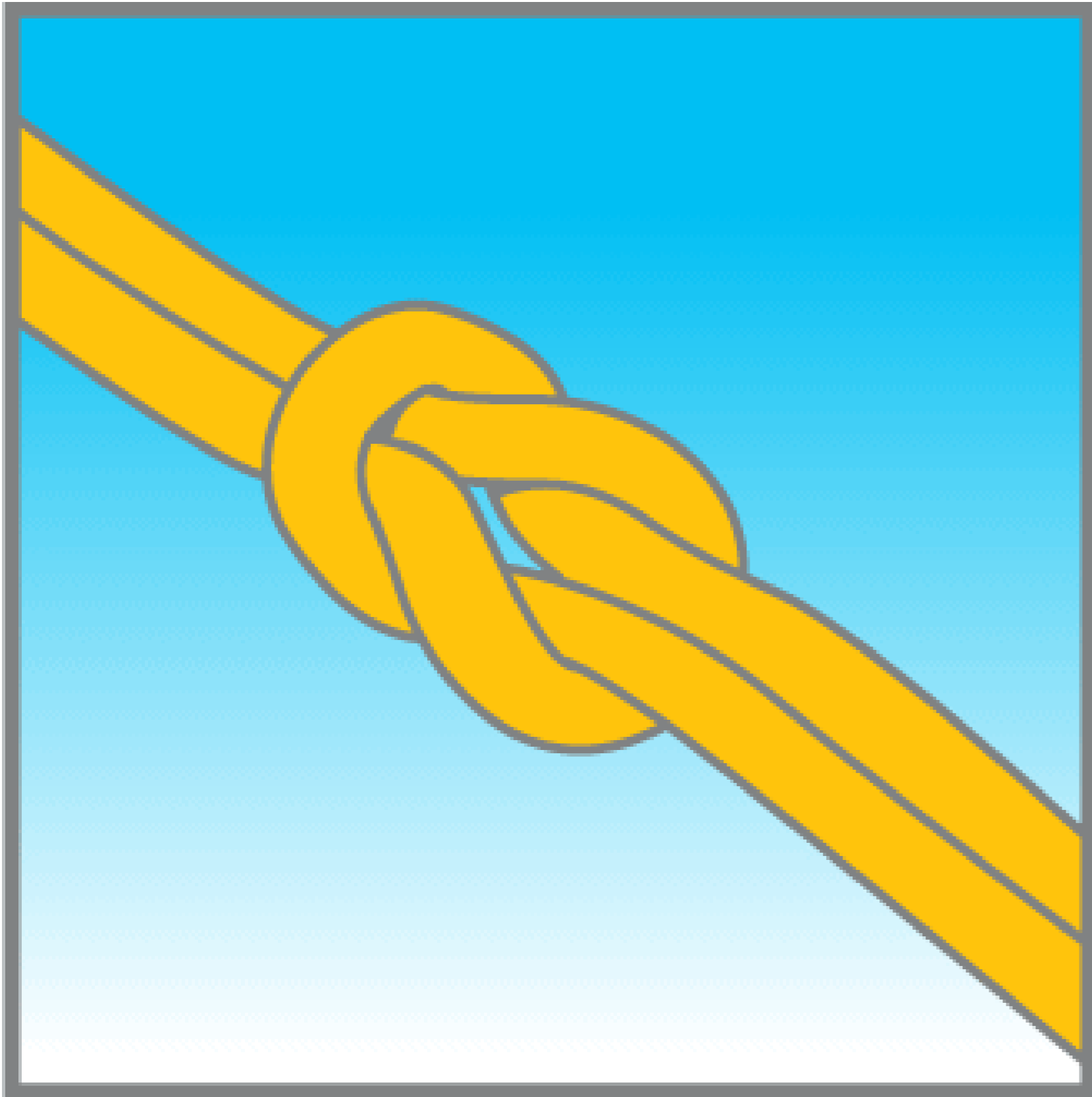




FIGURE 8

SQUARE KNOT

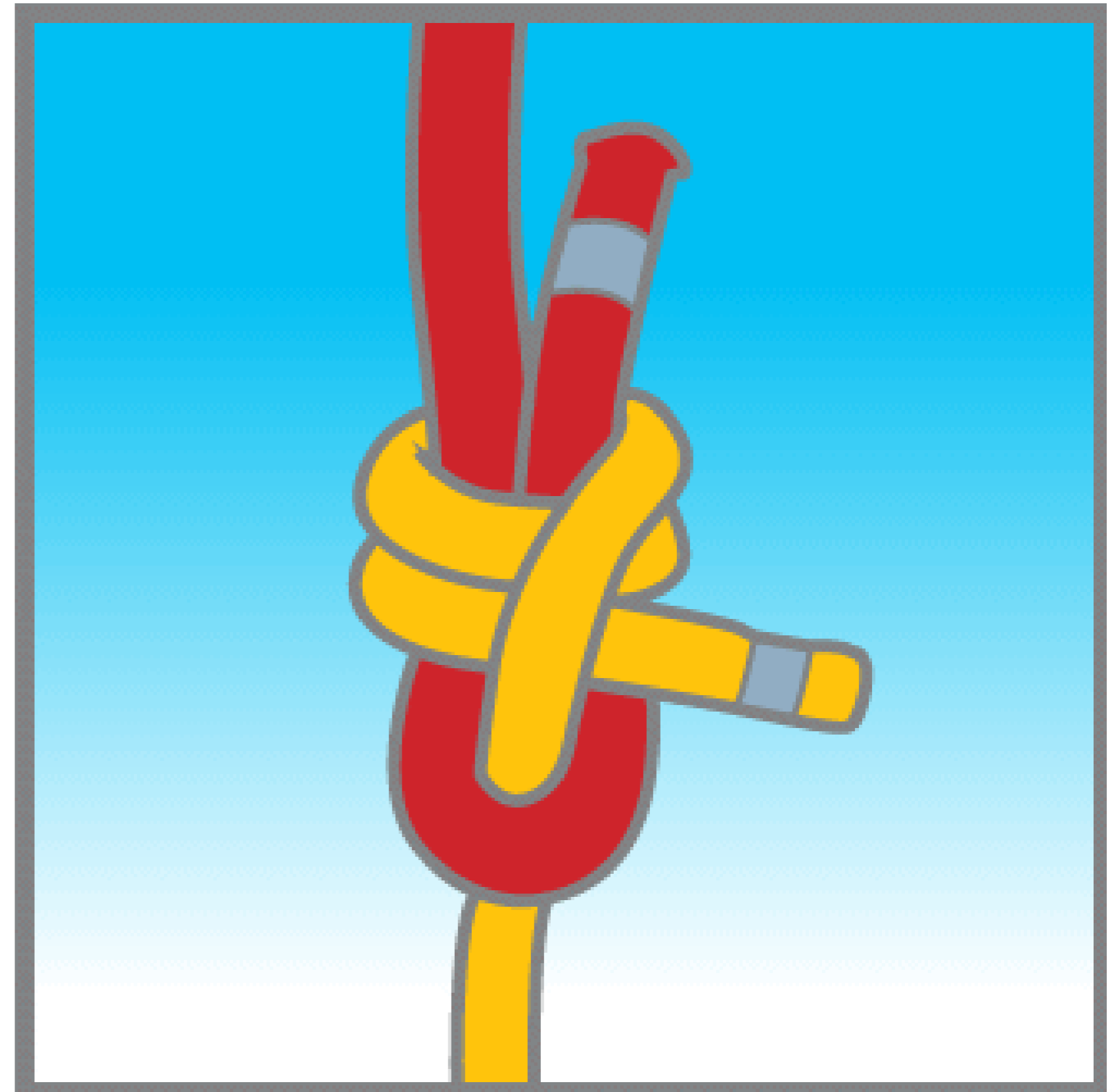
1. Make a simple overhand knot with the right end going over the left.
2. Tie another simple overhand knot, this time with the left end going over the right.
3. The square knot should be symmetrical when tightened.



SQUARE KNOT

SHEET BEND

1. Make a loop at the end of the smaller line, with the end crossing over the standing part. Pass the larger line up through the loop.
2. Run the larger line around the standing part of the smaller line and back down through the loop.
3. Tighten the knot.

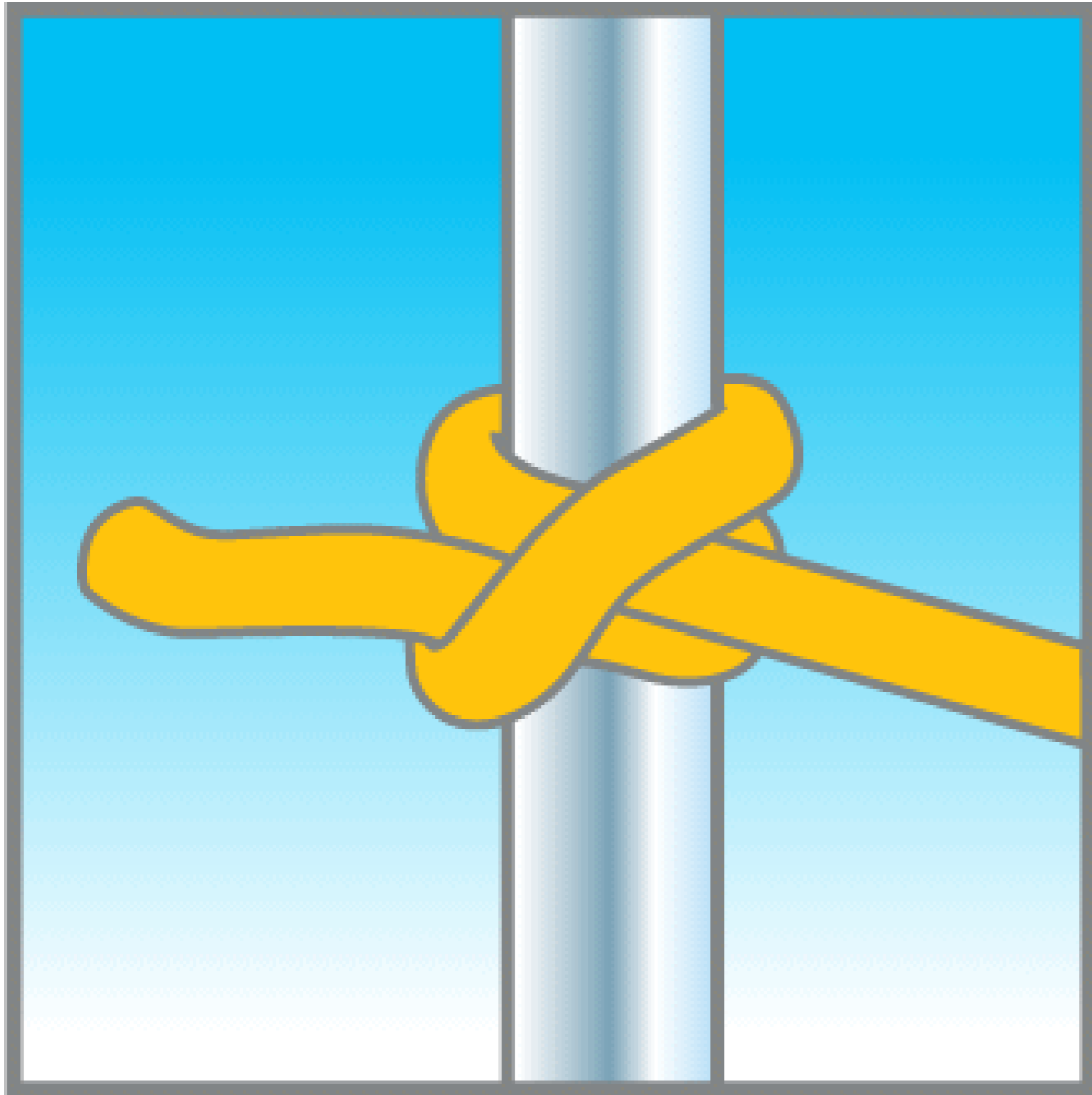




**SHEET
BEND**

CLOVE HITCH

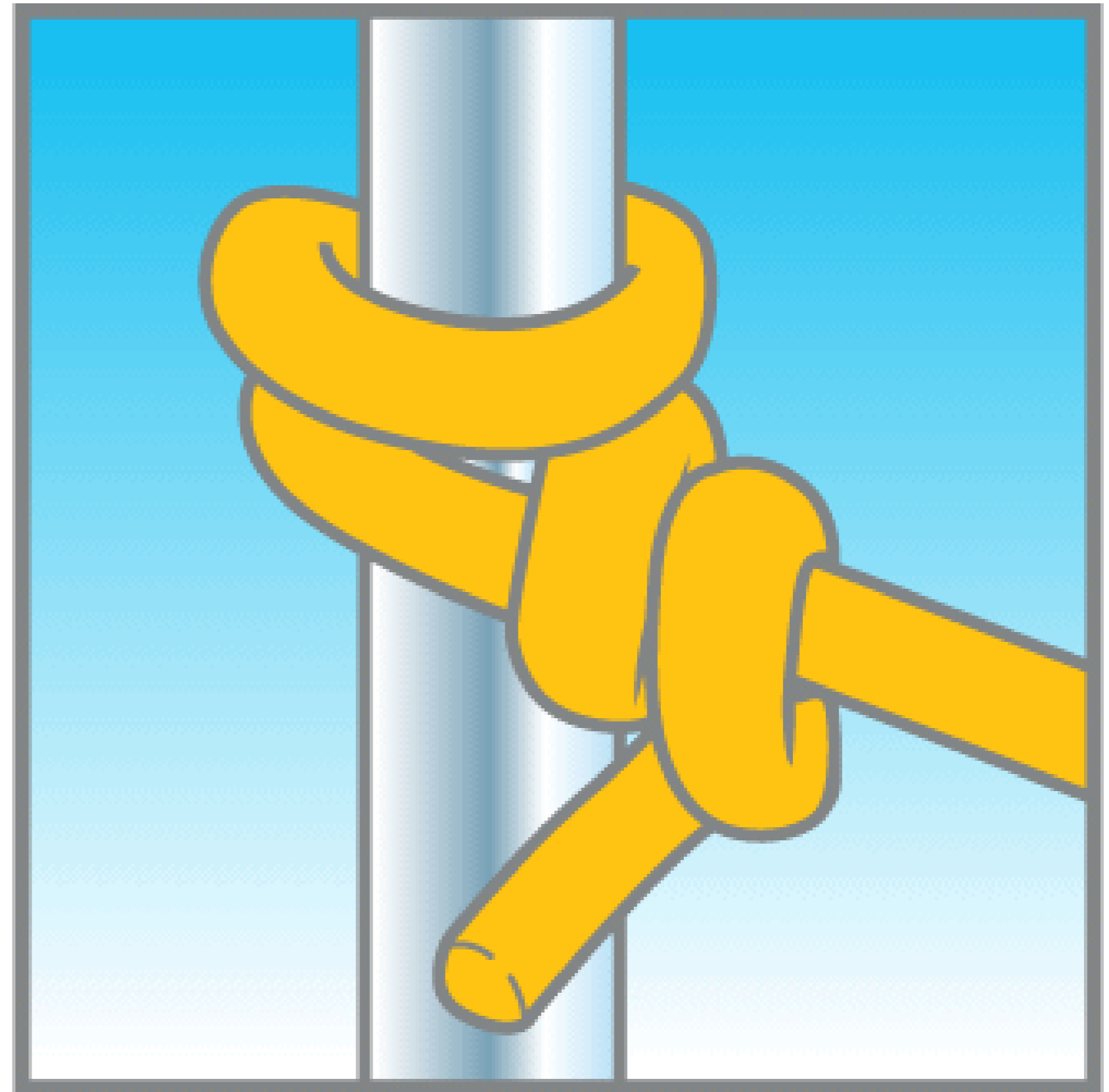
1. Wrap the end around the object to make a loop.
2. Cross the end over the standing part and make a second loop around the object.
3. Tuck the end under the second loop and tighten.



CLOVE HITCH

ROUND TURN & TWO HALF HITCHES

1. Wrap the end of the line twice around the object.
2. Cross the line over the top of the standing part and pass the line up underneath it (first half hitch).
3. Repeat step two to make the second half hitch and tighten the knot.



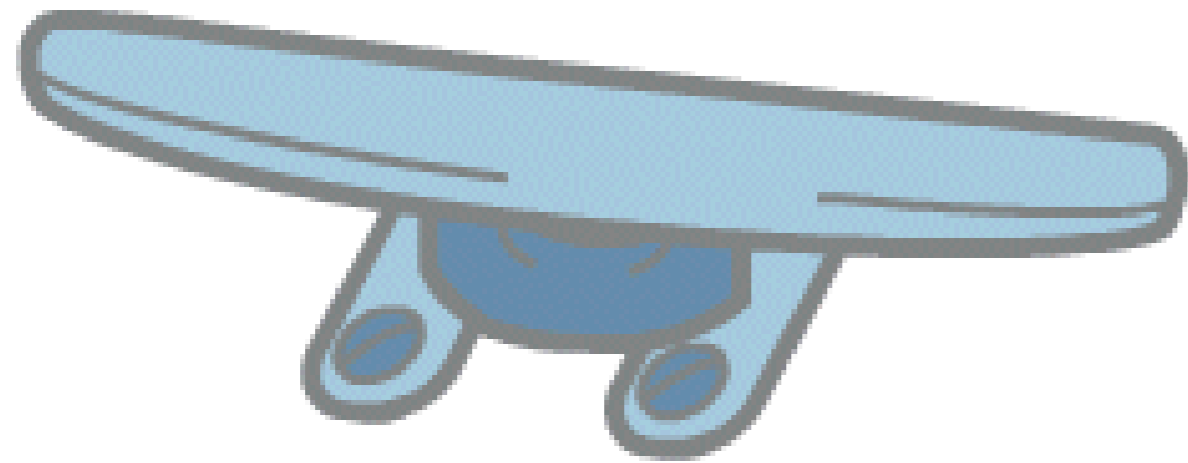
Round Turn and Two Half-hitches

CLEAT HITCH

Pass the line under the furthest horn of the cleat and wrap it once around the bottom of the cleat.

Pass it over the top, wrapping it once around the furthest horn.

Make a loop with the end under the standing part of the line and hook it onto the nearest horn. Tighten the knot.

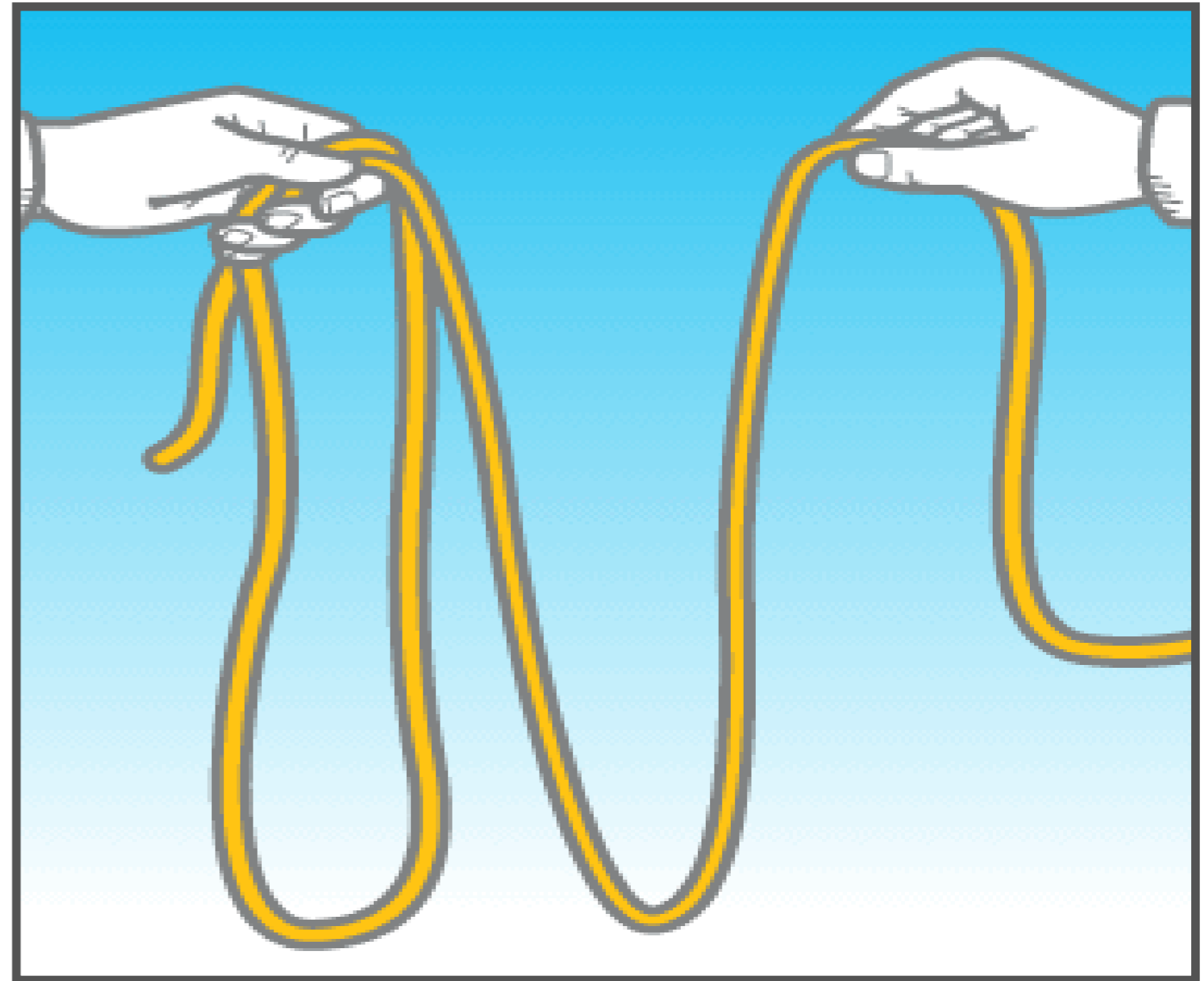


CLEAT HITCH

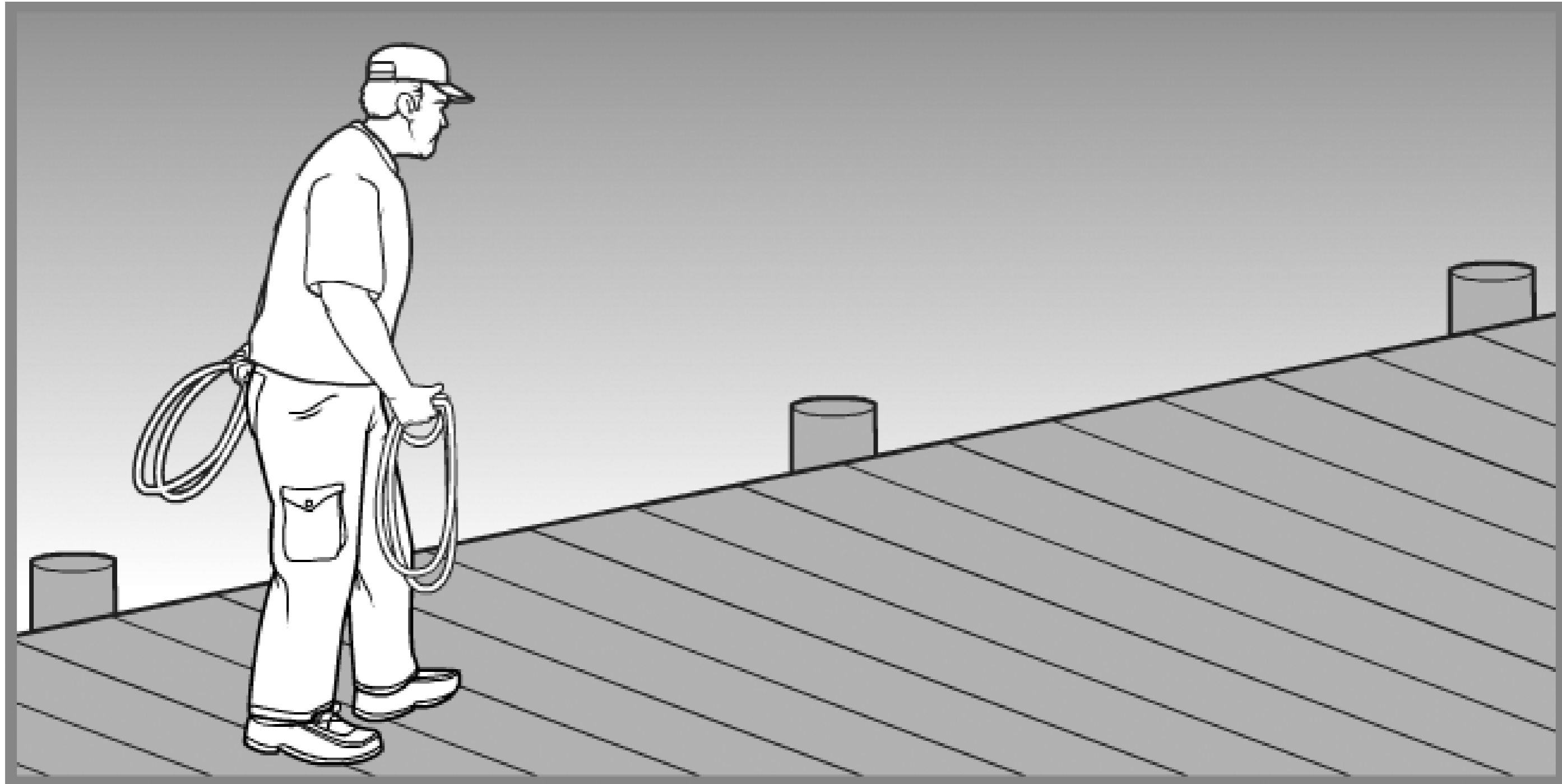
LINE HANDLING & HEAVING

One hand makes a new loop which is fed onto the other hand.

Keep each loop about the same size to create a tidy coil.



LINE HANDLING & HEAVING

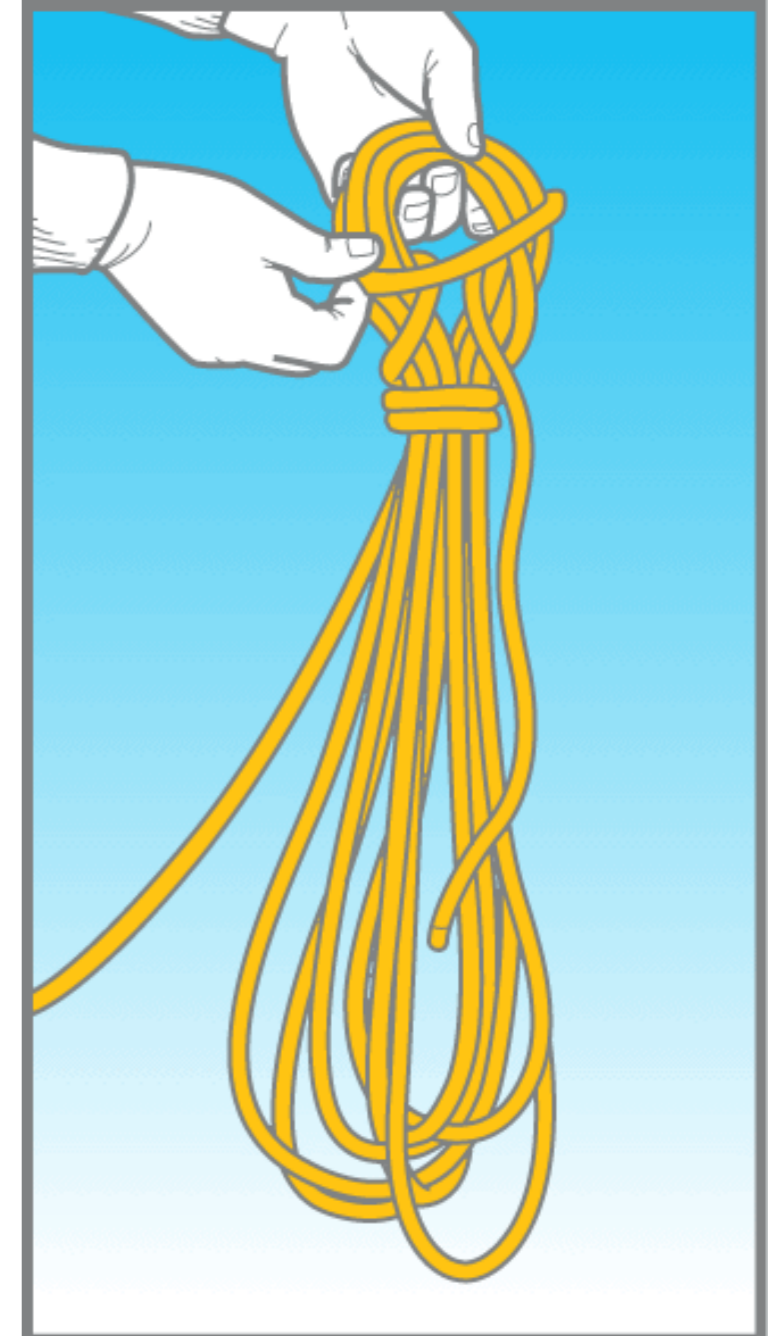


STOW A COILED LINE

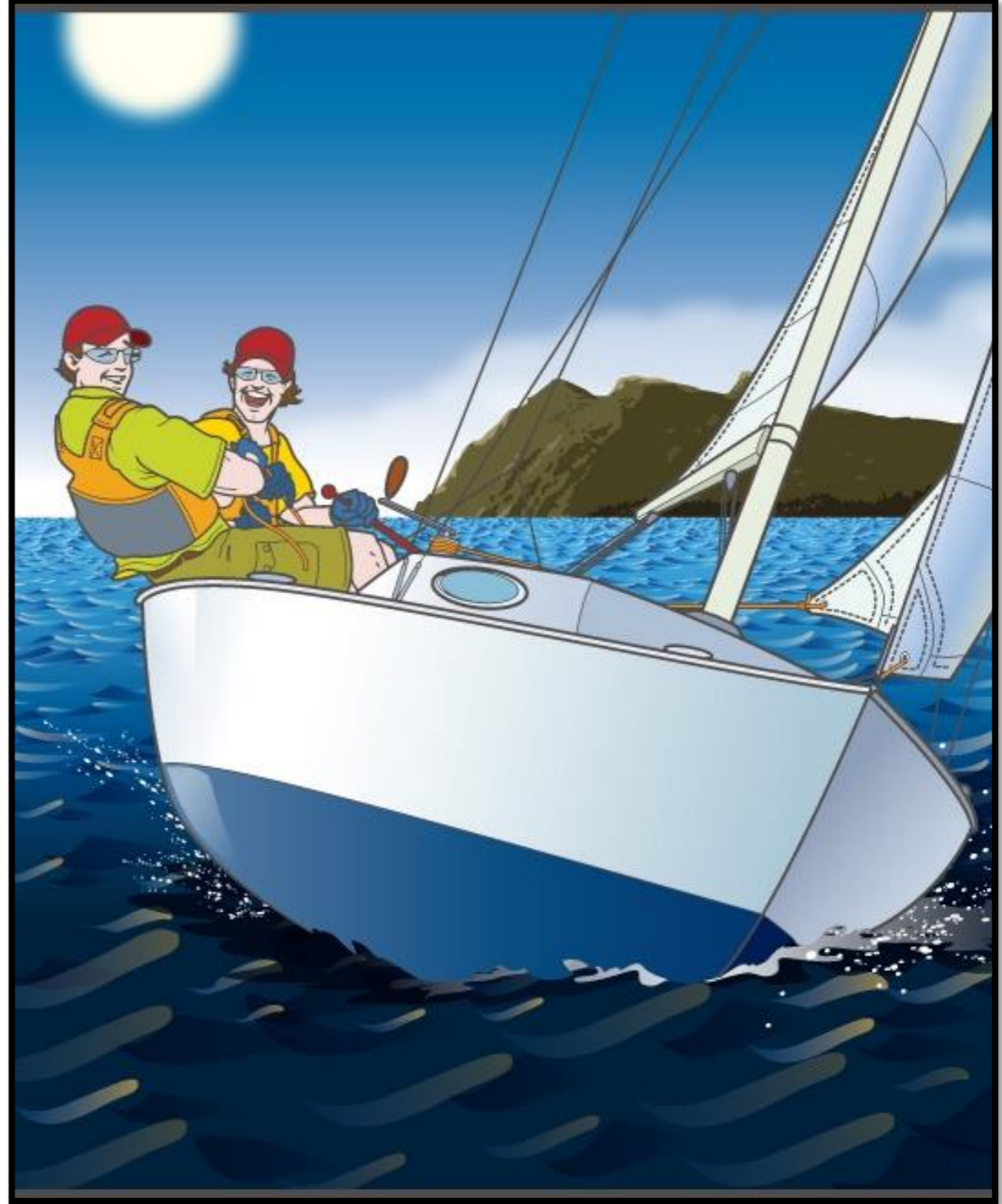
When you have finished coiling a line, you can make it easier to stow by looping the end of the line around the middle of the coil.

To do this, make a loop with the end of the line, pass it through the center and then bring it up and over the top of the coil.

Then tighten to create a tidy and secure coiled line that can be easily undone when ready for use.



REVIEW



UNIT SUMMARY

TOPICS COVERED

- Adjusting the shape of your sail for high or low winds
- Different angles you can use when tacking and jibing
- The concept of balance and steering without your sails
- How to respond to wind shifts
- Advanced examples of leaving and returning to dock
- How to tie the most important knots used in sailing
- Coiling and heaving lines

