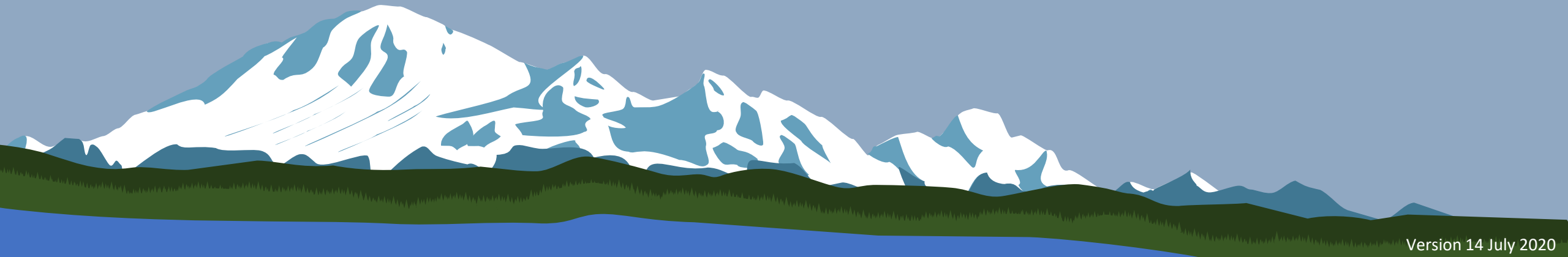
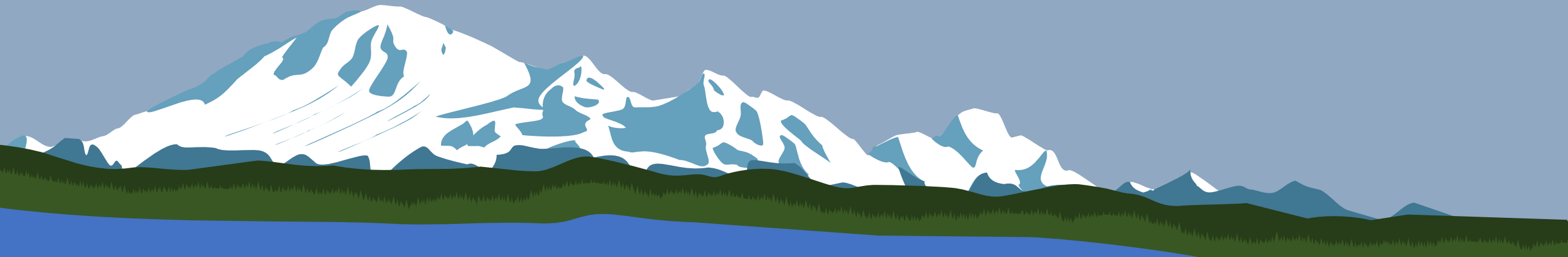


Canoeing Merit Badge



Index

1. [Merit Badge Requirements](#)
2. [Merit Badge Intro](#)
3. [Types of Canoeing](#)
4. [Canoeing Basics](#)
5. [Canoeing Hands On](#)
6. [Final Thoughts](#)
7. [Resources](#)
8. [More Strokes](#)
9. [Canoeing Videos](#)
10. [Instructor's Corner](#)



Copyright Notice

This presentation is protected by US and International copyright laws. Reproduction and distribution of this presentation without written permission of the sponsor is prohibited.

© 2021



Copyright Notice

Do NOT post or upload copies of this presentation on the WEB!



Terms and Conditions of Use

This slide set was designed to aid Merit Badge Counselors to deliver a Merit Badge course and to aid Scouts in completion of a Merit Badge.

Scouts, Merit Badge Counselors and other Scouters are free to use this material for teaching and learning Merit Badge requirements. Use of material in other scout related classes is also acceptable.

You may modify (add, delete, change) the slides for your own personalized use.

Do not post original or modified versions of these slides on the internet.

Questions? Contact the owner.



Disclaimer

This PowerPoint slideshow was designed to be used to prepare scouts for the Canoeing Merit Badge and nothing more.

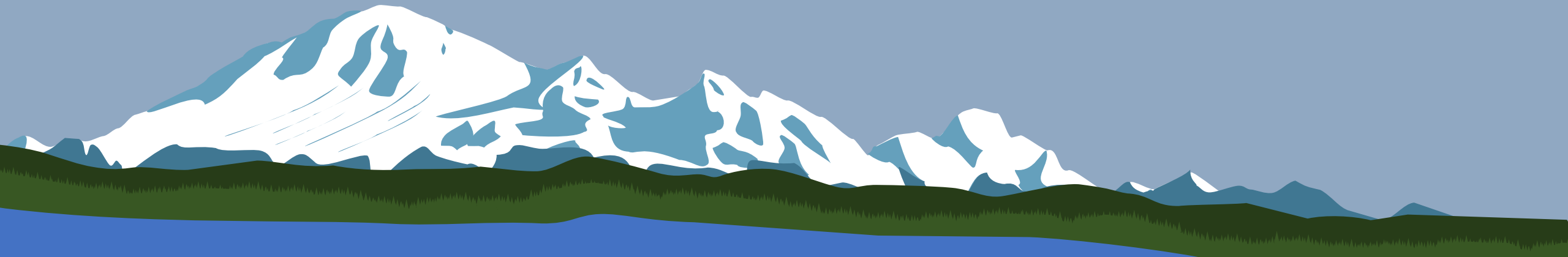
Canoeing and water sports are inherently dangerous. This is NOT a how-to guide.

**This slideshow is NOT intended to be used as
a Canoeing reference.**

Proceed at your own risk and may god have mercy on your soul.



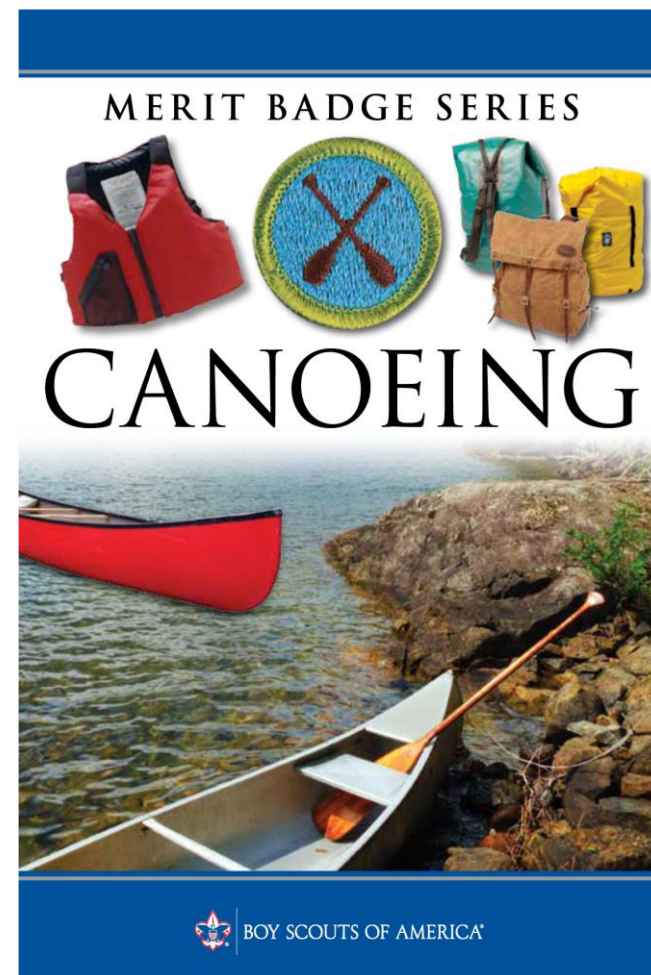
Merit Badge Requirements



Requirements

Requirements

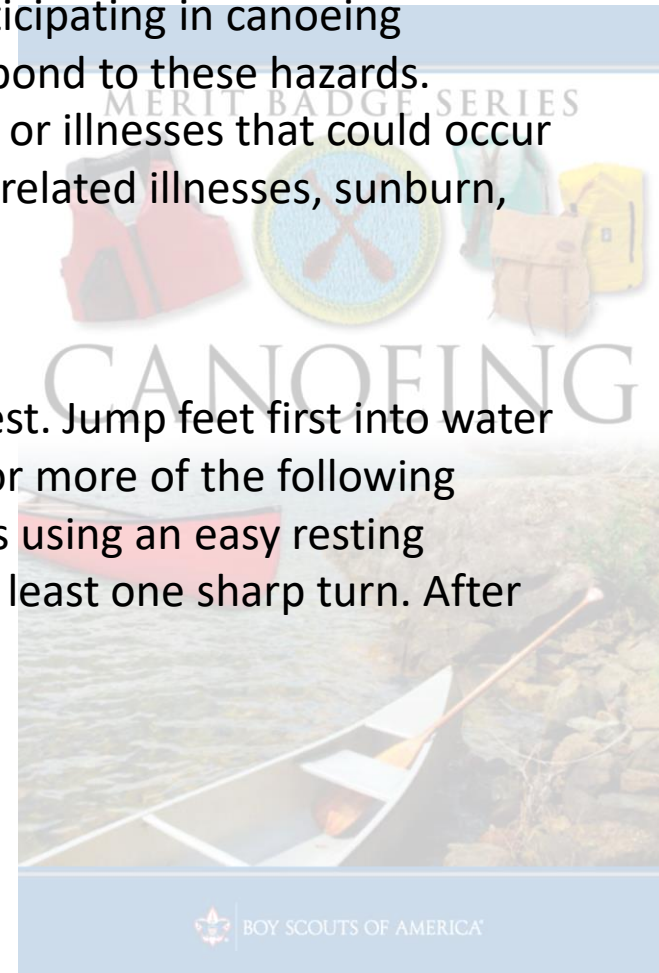
- Merit Badge requirements are dated:
January, 2018



Requirements

Requirements

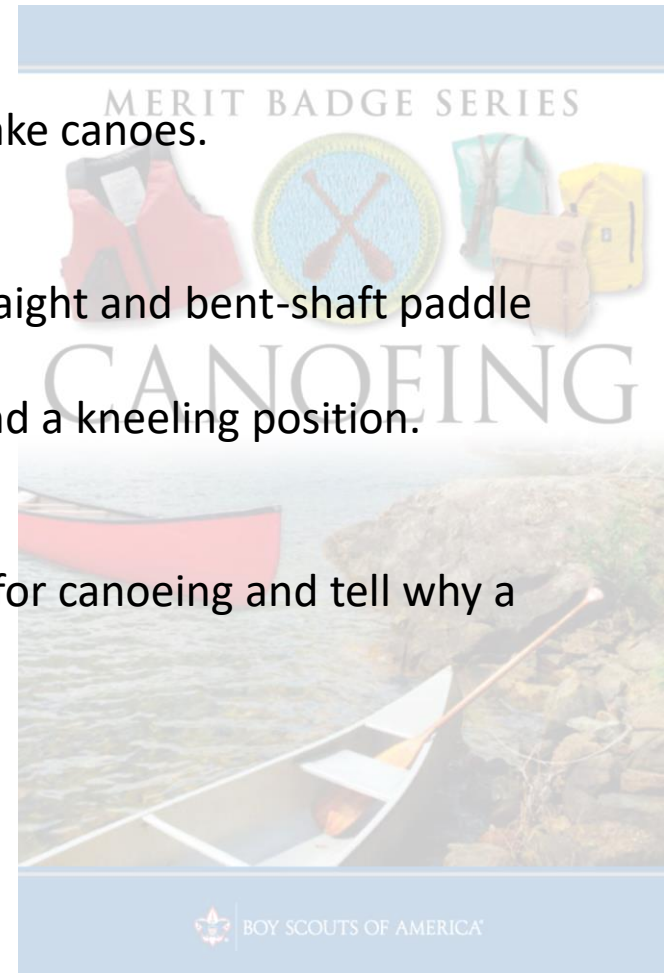
1. Do the following:
 - a. Explain to your counselor the most likely hazards you may encounter while participating in canoeing activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.
 - b. Review prevention, symptoms, and first-aid treatment for the following injuries or illnesses that could occur while canoeing: blisters, cold-water shock and hypothermia, dehydration, heat-related illnesses, sunburn, sprains, and strains.
 - c. Discuss the BSA Safety Afloat policy. Tell how it applies to canoeing activities.
2. Before doing the following requirements, successfully complete the BSA swimmer test. Jump feet first into water over your head in depth, swim 75 yards or 75 meters in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards or 25 meters using an easy resting backstroke. The 100 yards or 100 meters must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating.



Requirements

Requirements

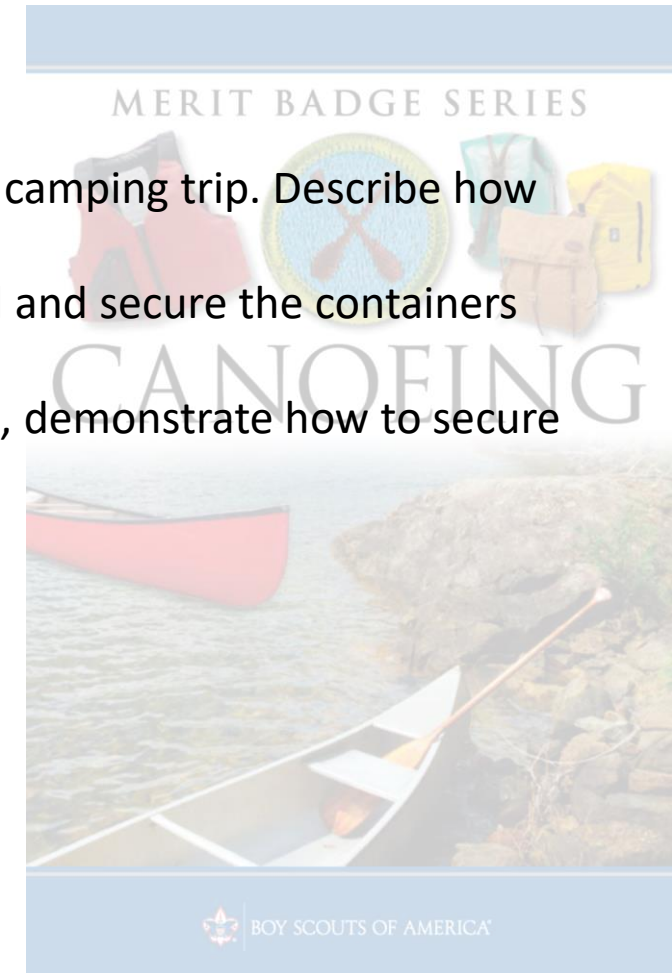
3. Do the following:
 - a. Name and point out the major parts of a canoe.
 - b. Describe how the length and shape of a canoe affect its performance.
 - c. Discuss the advantages and disadvantages of the different materials used to make canoes.
4. Do the following:
 - a. Name and point out the parts of a paddle. Explain the difference between a straight and bent-shaft paddle and when each is best used.
 - b. Demonstrate how to size correctly a paddle for a paddler in a sitting position and a kneeling position.
5. Do the following:
 - a. Discuss with your counselor the characteristics of life jackets most appropriate for canoeing and tell why a life jacket must always be worn while paddling.
 - b. Demonstrate how to select and properly fit the correct size life jacket.



Requirements

Requirements

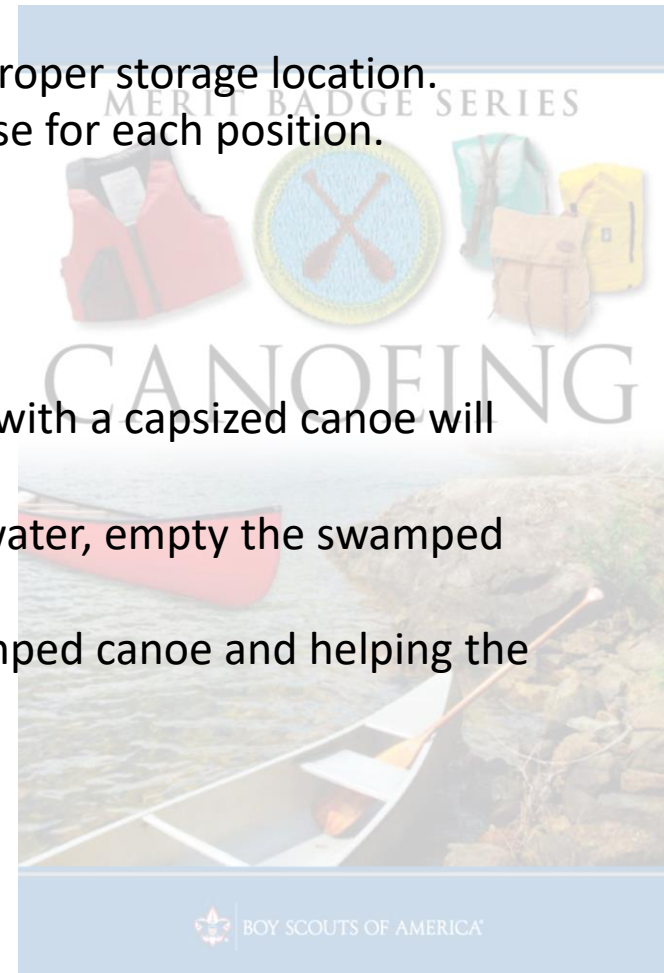
6. Discuss with your counselor the general care and maintenance of canoes, paddles, and other canoeing equipment.
7. Do the following:
 - a. Discuss what personal and group equipment would be appropriate for a canoe camping trip. Describe how personal and group equipment can be packed and protected from water.
 - b. Using the containers and packs from requirement 7a, demonstrate how to load and secure the containers and other equipment in the canoe.
 - c. Using appropriate knots, including a trucker's hitch, tautline hitch, and bowline, demonstrate how to secure a canoe to a vehicle or a trailer, or if these are not available, a rack on land.



Requirements

Requirements

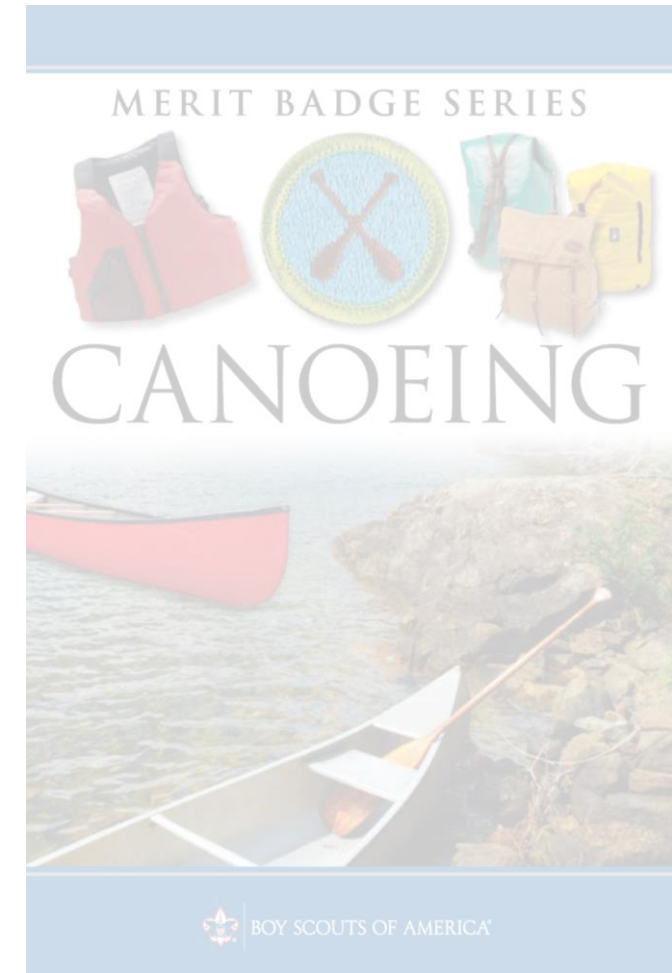
8. With a companion, use a properly equipped canoe to demonstrate the following:
 - a. Safely carry and launch the canoe from a dock or shore (both, if possible).
 - b. Safely land the canoe on a dock or shore (both, if possible) and return it to its proper storage location.
 - c. Demonstrate kneeling and sitting positions in a canoe and explain the proper use for each position.
 - d. Change places while afloat in the canoe.
9. With a companion, use a properly equipped canoe to demonstrate the following:
 - a. In deep water, exit the canoe and get back in without capsizing.
 - b. Safely perform a controlled capsize of the canoe and demonstrate how staying with a capsized canoe will support both paddlers.
 - c. Swim, tow, or push a swamped canoe 50 feet to shallow water. In the shallow water, empty the swamped canoe and reenter it.
 - d. In deep water, rescue a swamped canoe and its paddlers by emptying the swamped canoe and helping the paddlers safely reenter their boat without capsizing.



Requirements

Requirements

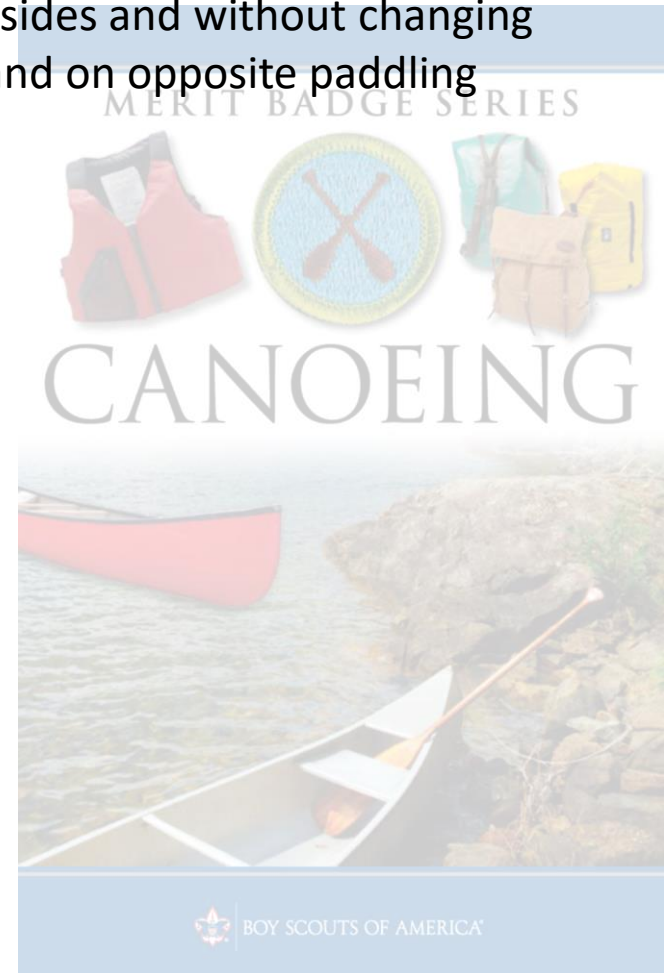
10. With a companion, use a properly equipped canoe to demonstrate the following paddling strokes as both a bow and stern paddler:
- a. Forward stroke
 - b. Backstroke
 - c. Draw
- For stern paddling only:
- d. J-stroke
 - e. Pushaway
 - f. Forward sweep
 - g. Reverse sweep
 - h. Rudder stroke
 - i. Stern pry



Requirements

Requirements

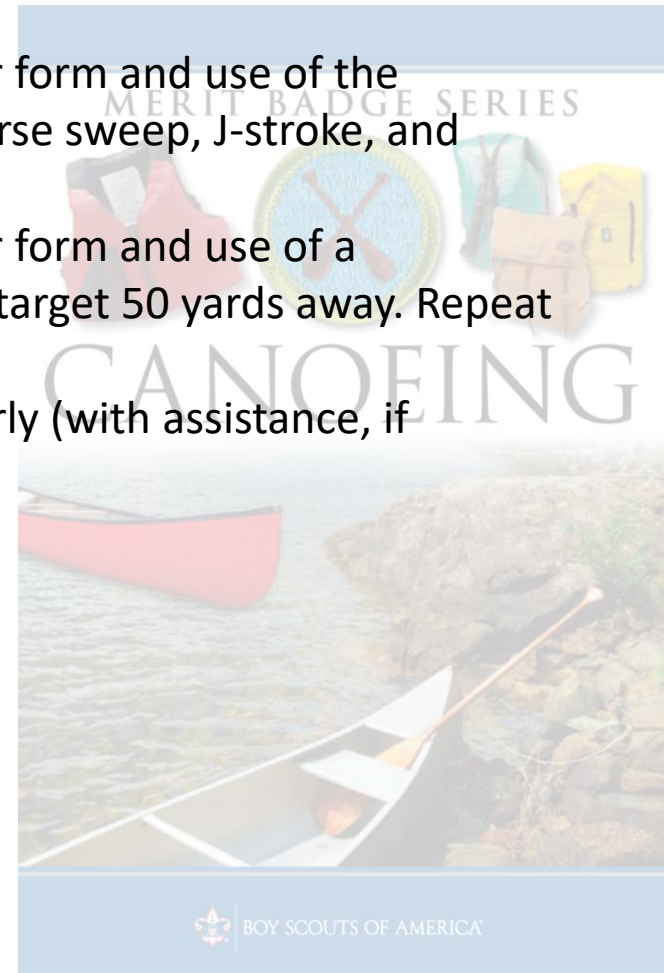
11. Using the strokes in requirement 10, and in an order determined by your counselor, use a properly equipped canoe to demonstrate the following tandem maneuvers while paddling on opposite sides and without changing sides. Each paddler must demonstrate these maneuvers in both the bow and stern and on opposite paddling sides:
- Pivot or spin the canoe in either direction.
 - Move the canoe sideways or abeam in either direction.
 - Stop the canoe.
 - Move the canoe in a straight line for 50 yards.



Requirements

Requirements

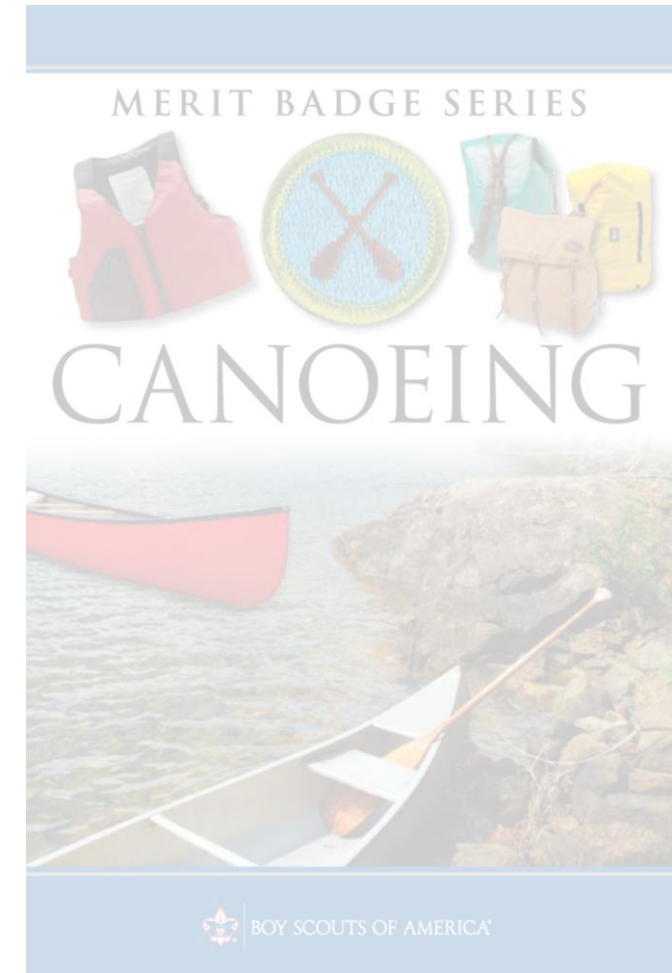
12. Use a properly equipped canoe to demonstrate solo canoe handling:
 - a. Launch from shore or a pier (both, if possible).
 - b. Using a single-blade paddle and paddling only on one side, demonstrate proper form and use of the forward stroke, backstroke, draw stroke, pushaway stroke, forward sweep, reverse sweep, J-stroke, and rudder stroke. Repeat while paddling on the other side.
 - c. Using a single-blade paddle and paddling only on one side, demonstrate proper form and use of a combination of a forward stroke, rudder stroke, and stern pry by canoeing to a target 50 yards away. Repeat while paddling on the other side.
 - d. Make a proper landing at a dock or shore (both, if possible). Store canoe properly (with assistance, if needed).



Requirements

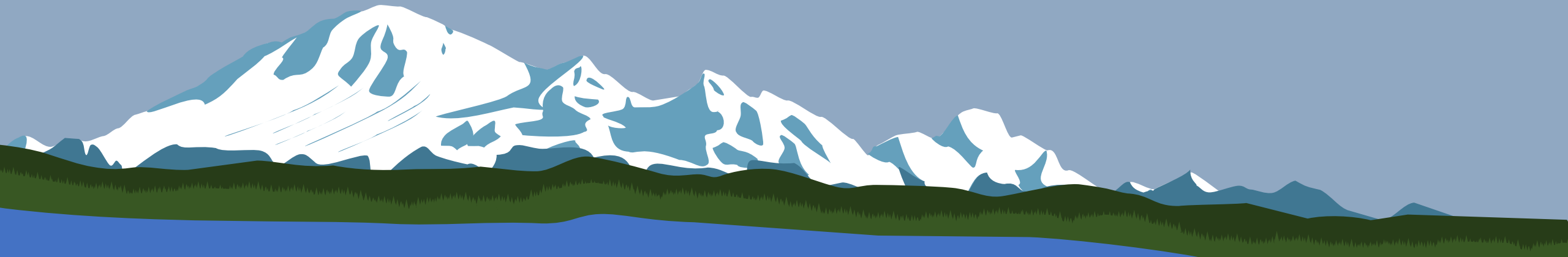
Requirements

13. Discuss the following types of canoeing:
- a. Olympic canoe sprint
 - b. Flatwater and river touring
 - c. Outrigger
 - d. Marathon
 - e. Freestyle
 - f. Whitewater
 - g. Canoe poling



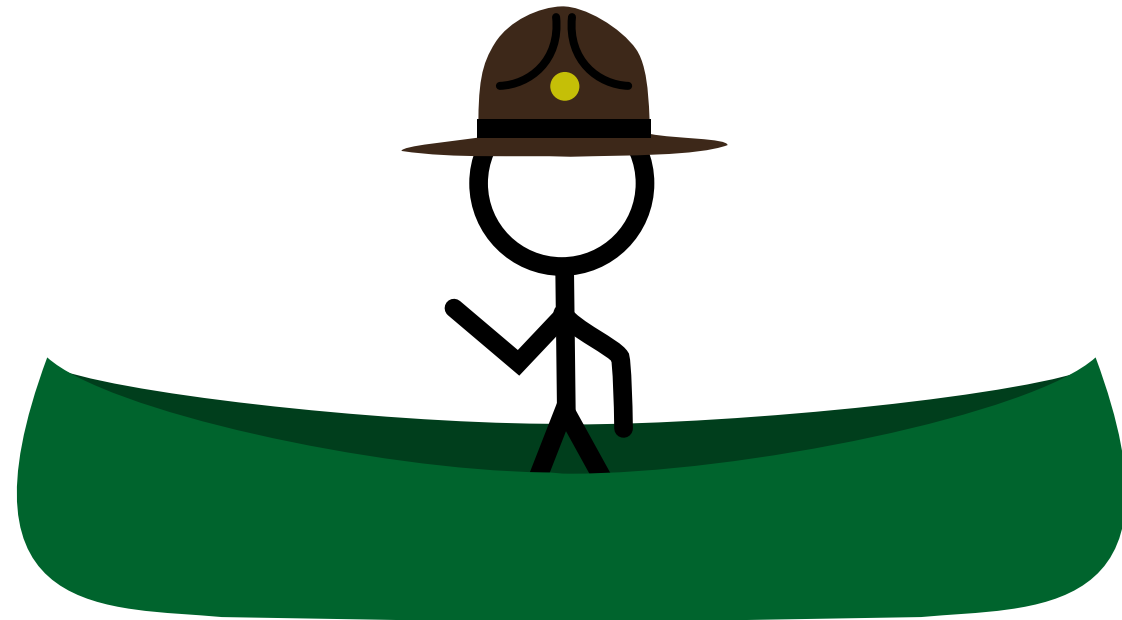


Merit Badge Intro



Merit Badge Intro

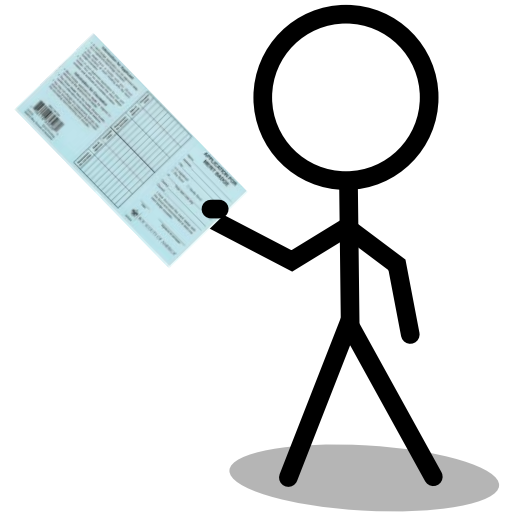
Instructor Introduction



Merit Badge Intro

Needed for Course

- Merit Badge Blue Card filled out and signed by your Scoutmaster
 - or other virtual agreement
- Merit Badge Pamphlet
- Scout Uniform
- A positive Scouting focus and attitude

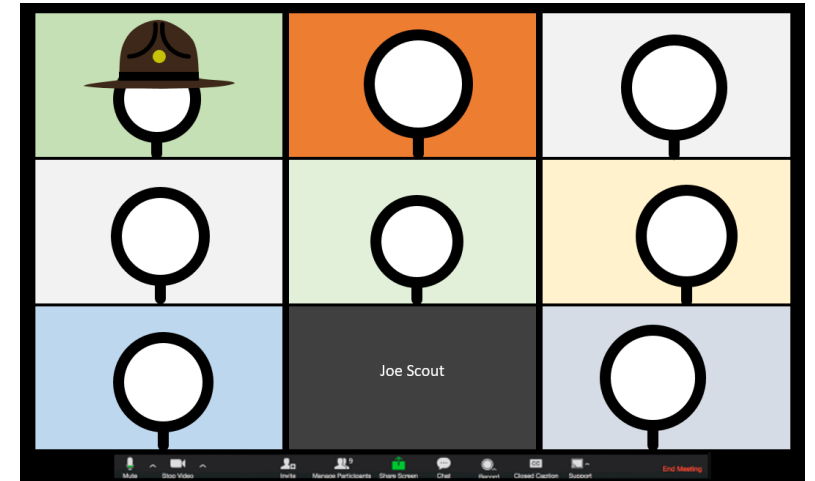


Merit Badge Intro

Virtual Meetings

- Use your **REAL Name** and **Troop Number** if you want credit
This is how we take attendance

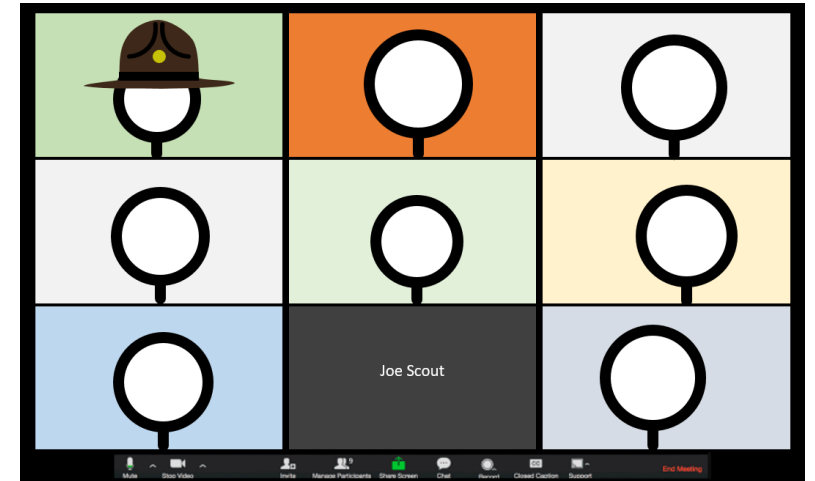
- MUTE yourself unless speaking to the group
- Please turn your video on so we can see you
- No Chat SPAMMING
- If you need to go pee, go
- If something isn't working, please let us know!



Merit Badge Intro

Virtual Meetings

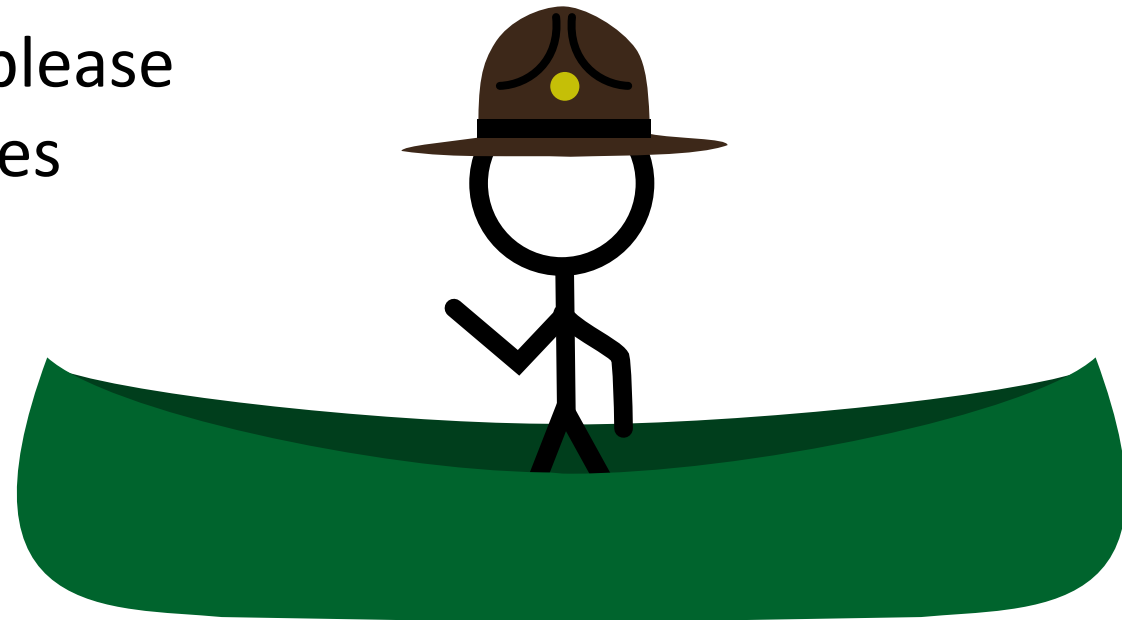
- We can't do ALL the requirements virtually
- Option A – Partial Completion
- Option B – Completion – need proof
- Please send completed homework **AFTER** the final class
- Tell us who we should CC about completion



Merit Badge Intro

Course Overview

- We will cover most of the requirements for this Merit Badge in class
- We need proof that you completed these requirements
 - Please turn in a completed [worksheet](#) if possible
This makes it easier on the counselor
 - If you can't complete a [worksheet](#), please contact your counselor for alternatives



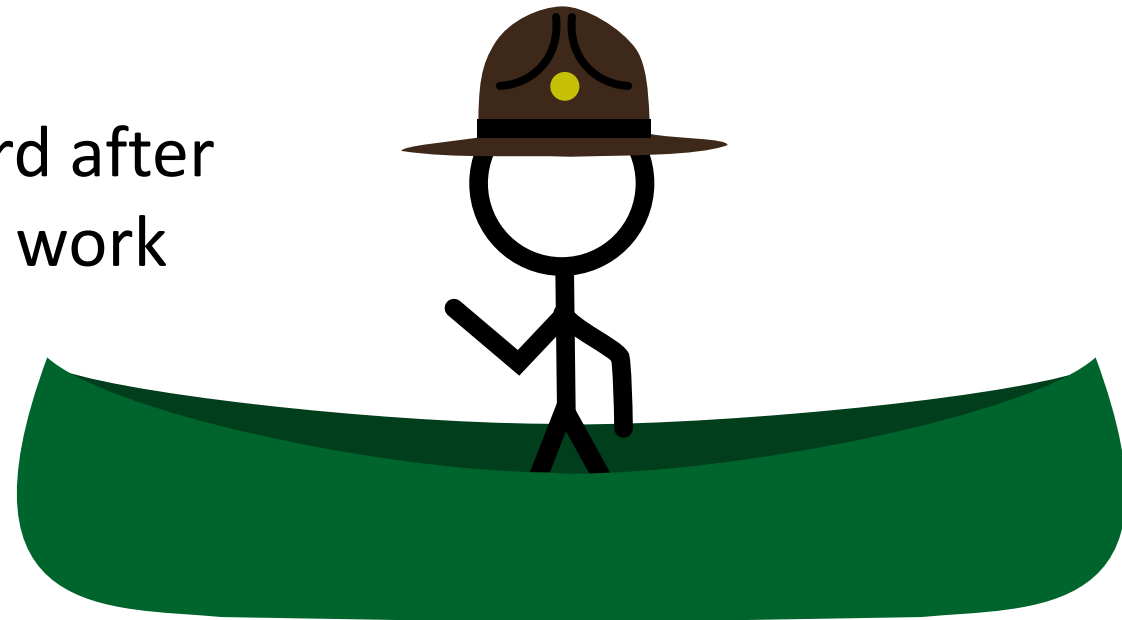
Merit Badge Intro

Course Overview

- Some of the requirements obviously can't be completed in class
 - Proof of completion can be submitted later

or

- Ask for a partial completion Blue Card after you turn in your partially completed work



Merit Badge Intro

Merit Badge Requirement Checklist

- ☐ 1-6 and 13 – Fill out [worksheet](#)
- ☐ 7-12 – Hands on Requirements



- ☐ Turn in complete [worksheet](#)

If you can't do a worksheet – contact counselor

Final Thoughts

Safety

Hands On requirements **MUST** be completed
with supervision from a **PROPERLY TRAINED ADULT**

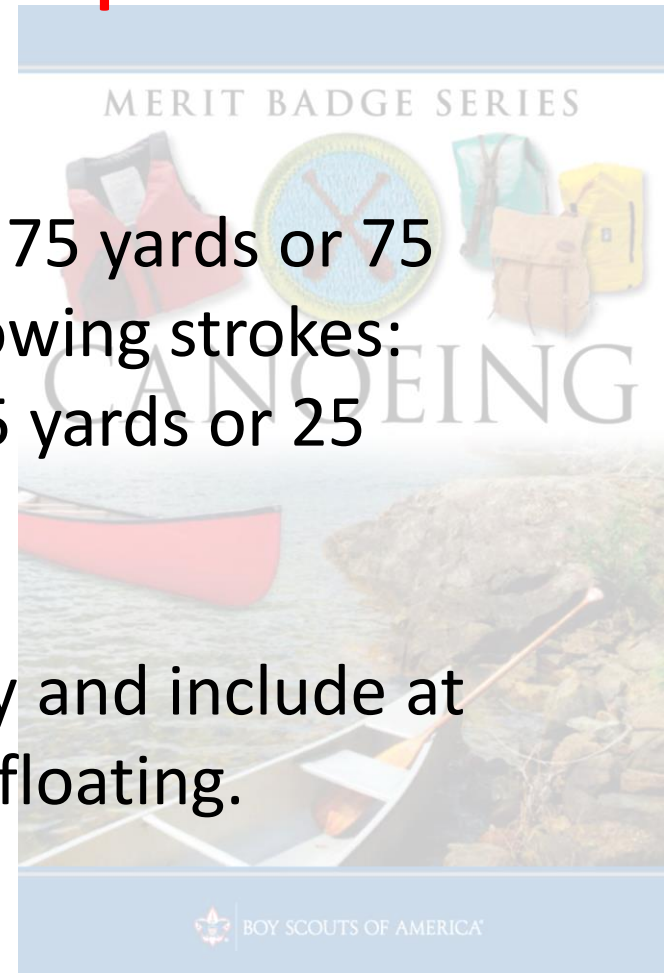
Requirements

Requirement 2 – Swim Test

Before doing the following requirements, successfully complete the BSA swimmer test.

Jump feet first into water over your head in depth, swim 75 yards or 75 meters in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards or 25 meters using an easy resting backstroke.

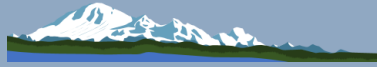
The 100 yards or 100 meters must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating.



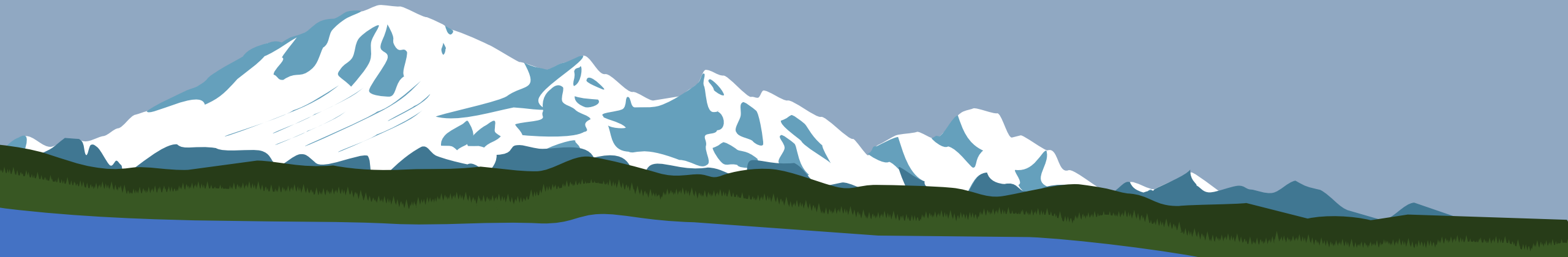
Merit Badge Intro

Class Objectives

- Cover the basics of Canoeing
- Safely learn to
 - Paddle a canoe
 - Maneuver a canoe
 - Recover a swamped or capsized canoe
- Have Fun!



Canoeing Safety

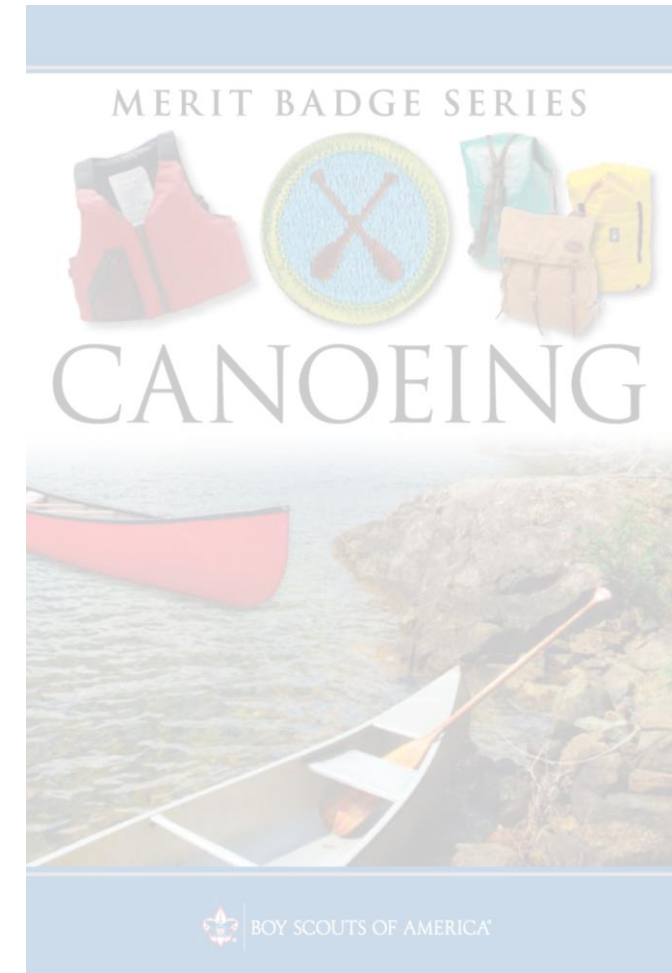


Canoeing Safety

Requirement 1c - BSA Safety Afloat

Discuss the BSA Safety Afloat policy.

Tell how it applies to canoeing activities.



Canoeing Safety

BSA Safety Afloat

1. Qualified Supervision. All canoeing activities must be supervised by a mature and conscientious adult age 21 or older who understands and knowingly accepts responsibility for the wellbeing and safety of those in his or her care and who is trained in and committed to the points of Safety Afloat. That supervisor must be skilled in safe canoeing, knowledgeable in accident prevention, and prepared for emergency situations. If the adult with Safety Afloat training lacks the necessary canoe operating and safety skills, then he or she may serve as the supervisor only if assisted by other adults, camp staff personnel, or professional tour guides who have the appropriate skills.

Additional leadership is provided in ratios of one trained adult, staff member, or guide per ten participants. At least one leader must be trained in first aid, including CPR. It is strongly recommended that all units have at least one adult or older youth member currently trained in BSA Paddle Craft Safety to assist in the planning and conduct of all canoeing activities.



Canoeing Safety

BSA Safety Afloat

2. Personal Health Review. All participants must provide a complete health history, signed by a parent or legal guardian, as evidence of fitness for canoeing activities. Participants should let their leaders know if they have had any recent illnesses or injuries, or if they have any medical conditions such as diabetes, severe allergies, epilepsy, asthma, or heart conditions so that supervision and protection can be adjusted to anticipate any potential risks.



Canoeing Safety

BSA Safety Afloat

3. Swimming Ability. Operation of any canoe is limited to youth and adults who have completed the annual BSA swimmer classification test: Jump feetfirst into water over the head in depth. Level off and swim 75 yards in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards using an easy, resting backstroke. The 100 yards must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating.

Anyone not classified as a swimmer may ride in a canoe as a buddy with an adult swimmer who is skilled in that craft.



Canoeing Safety

BSA Safety Afloat

4. Personal Flotation Equipment. Properly fitted, U.S. Coast Guard–approved personal flotation devices (PFDs) must be worn by every person in a canoe. Type III PFDs are recommended for general recreational use.



Canoeing Safety

BSA Safety Afloat

5. Buddy System. All canoeing participants are paired as buddies who are always aware of each other's situation and prepared to sound an alarm and lend assistance immediately when needed.

When several canoes are used on a float trip, each canoe on the water should have a buddy boat. Buddies either ride in the same canoe or stay near one another in single-person canoes.



Canoeing Safety

BSA Safety Afloat

6. Skill Proficiency. Everyone in a canoeing activity must have enough knowledge and skill to participate safely. Passengers should know how their movement affects the canoe's stability and should have a basic understanding of self-rescue. Paddlers must be able to control the canoe, know how changes in the environment influence that control, and participate only in activities that are within their capabilities.

- Participants should be instructed in basic safety procedures prior to launch and allowed to proceed once they have demonstrated the ability to control the canoe adequately to return to shore.
- Before embarking on a long float trip, paddlers should have either three hours of canoe training and supervised practice or should be able to successfully complete a 100-yard course and recover from a capsize.
- Trips on whitewater above Class II must be done with either a professional guide in (after all participants have received American Canoe Association or equivalent training water and type of craft involved.



Canoeing Safety

BSA Safety Afloat

7. Planning. Proper planning is necessary to ensure safe, enjoyable canoeing. All plans should include a scheduled itinerary, notification of appropriate parties, communication arrangements, contingencies in case of inclement weather or equipment failure, and options for emergency response.

Preparation. Any canoeing activity requires access to the proper equipment and transportation of gear and participants to the site. Determine what state and local regulations are applicable. Get permission to use or cross private property. Determine whether personal resources will be used or whether outfitters will supply equipment, food, and shuttle services. Lists of group and personal equipment and supplies must be compiled and checked. Even short trips require selecting a route, checking water levels, and determining alternative pull-out locations. Changes in water level, especially on moving water, may pose significant, variable safety concerns. Obtain current charts and information about the waterway and consult those who have traveled the route recently.



Canoeing Safety

BSA Safety Afloat

7. Planning.

Float Plan. Complete the preparation by writing a detailed float plan, noting put-in and pull-out locations and waypoints, along with the approximate time the group should arrive at each. Travel time should be estimated generously.

Notification. File the float plan with parents, the local council office if traveling on running water, and local authorities if appropriate. Make sure everyone is promptly notified when the trip is concluded.

Weather. Check the weather forecast just before setting out, and keep an alert weather eye. Anticipate changes and bring all canoes ashore when rough weather threatens. Wait at least 30 minutes before resuming activities after the last incidence of thunder or lightning.



Canoeing Safety

BSA Safety Afloat

7. Planning.

Contingencies. Planning must identify possible emergencies and other circumstances that could force a change of plans. Develop alternative plans for each situation. Identify local emergency resources such as EMS systems, sheriff departments, or ranger stations. Check your primary communication system, and identify back-ups, such as the nearest residence to a campsite. Cell phones and radios may lose coverage, run out of power, or suffer water damage.



Canoeing Safety

BSA Safety Afloat

8. Equipment. All canoes must be suitable for the activity and seaworthy, and must float if capsized. All canoes and equipment must meet regulatory standards, be properly sized, and be in good repair. Spares, repair materials and emergency gear must be carried as appropriate. PFDs and paddles must be sized to the participants. Properly designed and fitted helmets must be worn when running rapids rated above Class II. Emergency equipment such as throw bags, signal devices, flashlights, heat sources, first aid kits, radios, and maps must be ready for use. Spare equipment, repair materials, extra food and water, and dry clothes should be appropriate for the activity. All gear should be stowed to prevent loss and water damage.



Canoeing Safety

BSA Safety Afloat

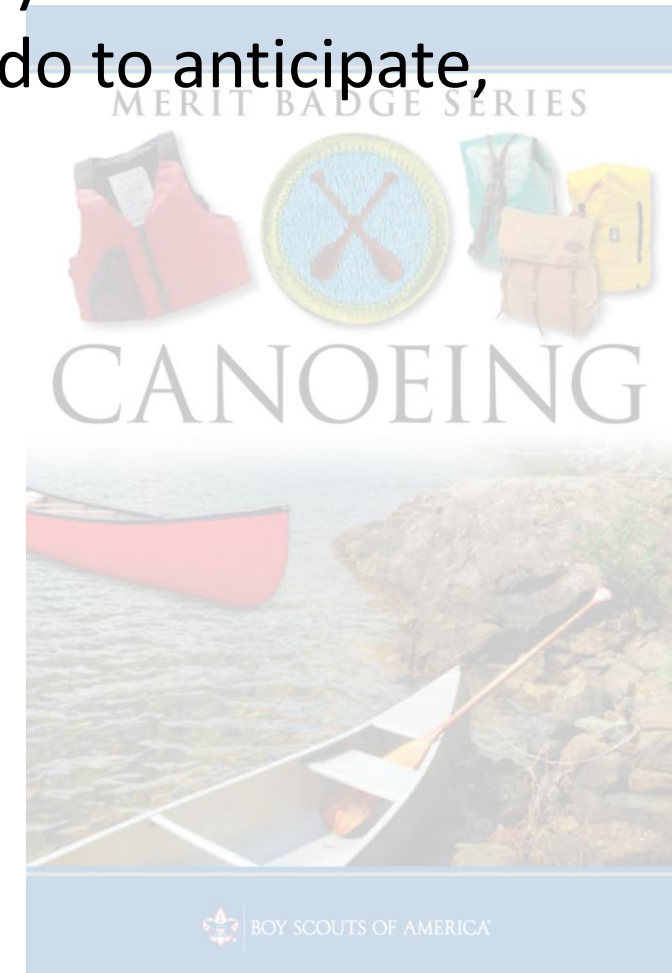
9. Discipline. Rules are effective only when followed. All participants should know, understand, and respect the rules and procedures for safe canoeing activities provided by Safety Afloat guidelines. Discuss the applicable rules with everyone near the boarding area just before the activity begins. People are more likely to follow directions when they know the reasons for rules and procedures. Consistent, impartially applied rules supported by skill and good judgment provide stepping stones to a safe, enjoyable outing.



Canoeing Safety

Requirement 1a – Hazards

Explain to your counselor the most likely hazards you may encounter while participating in canoeing activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.



Canoeing Safety

Hazards

- **Storms**

Depending on the area and the time of year, storms can be predicted with some regularity. However, storms can develop at any time and with a speed that surprises even the National Weather Service.

Once you notice an approaching storm, get off the water as quickly as possible. Carry the canoes onto shore and use ropes to secure them from blowing winds and large waves. If caught in a storm, stay low and get to shore. Be prepared to bail water out of the canoe if the rain is heavy.

Canoeing Safety

Hazards

- **Storms – Lightning**

If you see lightning, keep a low profile in the canoe until you reach shore.

During a lightning storm, get off and stay off the water and away from open or exposed shorelines.

On shore, stay away from tall geographical features such as trees.

Remove your PFD, place it on the ground, and kneel on it.

Canoeing Safety

Hazards

- **Wind and Waves**

Wind and the waves it creates have the potential to give you a thrilling ride or to swamp your boat. Learning about wind and waves and the hazards they create is an essential part of canoeing.

Wind is created when air moves from a high-pressure area to a low-pressure area. Usually absent in the early morning, wind increases as the rising sun heats the ground and air throughout the late morning and early afternoon. Winds often reach maximum strength by midafternoon. By sundown, they usually subside to an occasional breeze.

Canoeing Safety

Hazards

- Wind and Waves

**Do not attempt to paddle across
a large lake when strong winds are likely**

Canoeing Safety

Hazards

- **Wind and Waves**

Waves result when wind collides with the water. A keen eye will see the ripple effect on the water surface as a gentle wind moves across it. As the wind increases, so will the size of the waves until they become frothy whitecaps. Waves can become so big that they can easily swamp a canoe.

Canoeing Safety

Hazards

- **Wind and Waves**

Always anticipate wind as part of any canoeing activity. If you are on a canoe trip, start before the winds increase and land before midafternoon to avoid the peak wind periods. Paddle along the shoreline to minimize the effects of wind and waves. Whether paddling with or against the wind, it is wise to work your way gradually to the downwind side of an island or point of land. If strong winds make paddling difficult, go ashore and take a break until the winds die down enough to making paddling safe and fun again.

Canoeing Safety

Hazards

- **Wind and Waves**

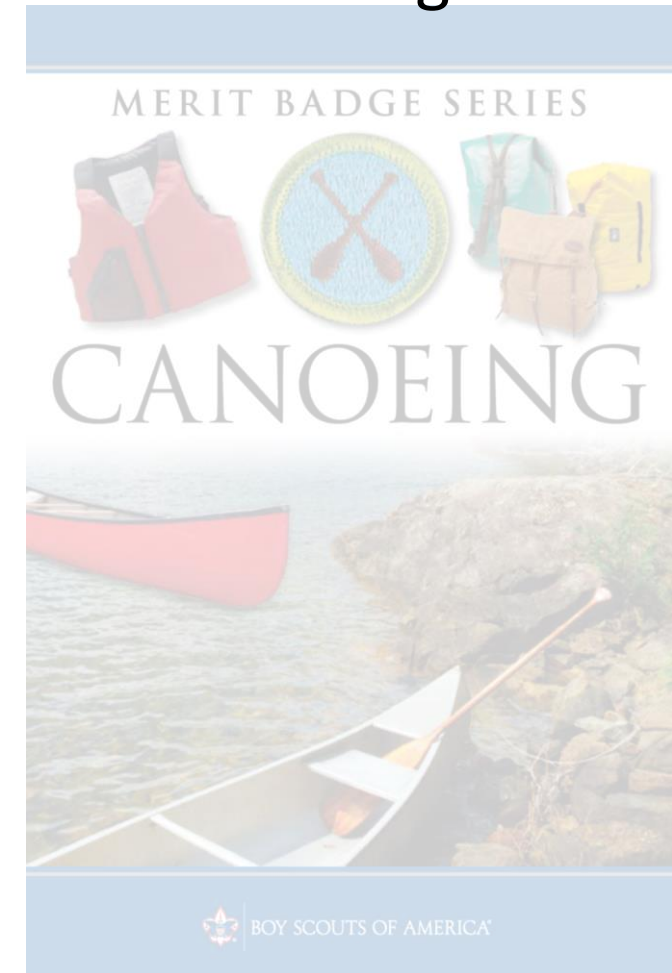
When the wind starts really blowing and waves begin to build, kneel in the canoe to keep your center of gravity low and reduce the chances of the boat capsizing.

Canoeing Safety

Requirement 1b – First-Aid

Review prevention, symptoms, and first-aid treatment for the following injuries or illnesses that could occur while canoeing:

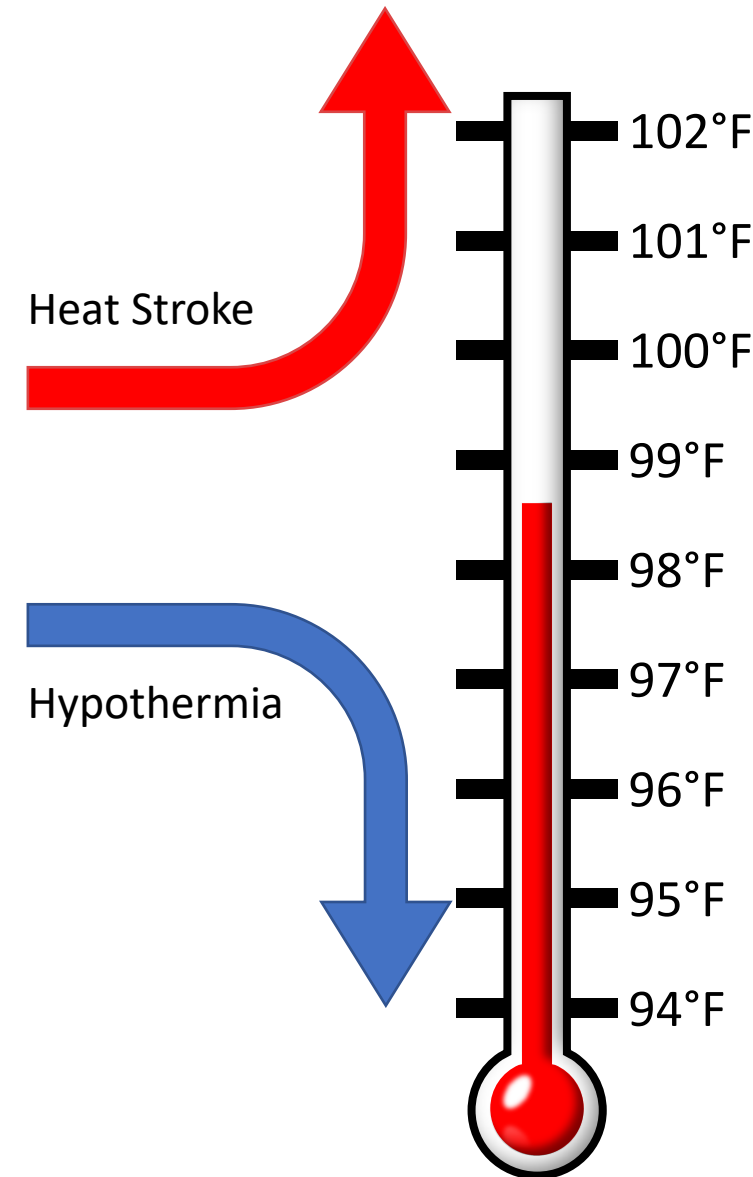
- Blisters
- Cold-water shock
- Hypothermia
- Dehydration
- Heat-related illnesses
- Sunburn
- Sprains
- Strains



Canoeing Safety

First-Aid – Body Temperature

- The human body operates best around 98.6°F
- If body loses heat faster than it can generate it, it will fail to function
- If body overheats and is unable to cool itself, it will fail to function

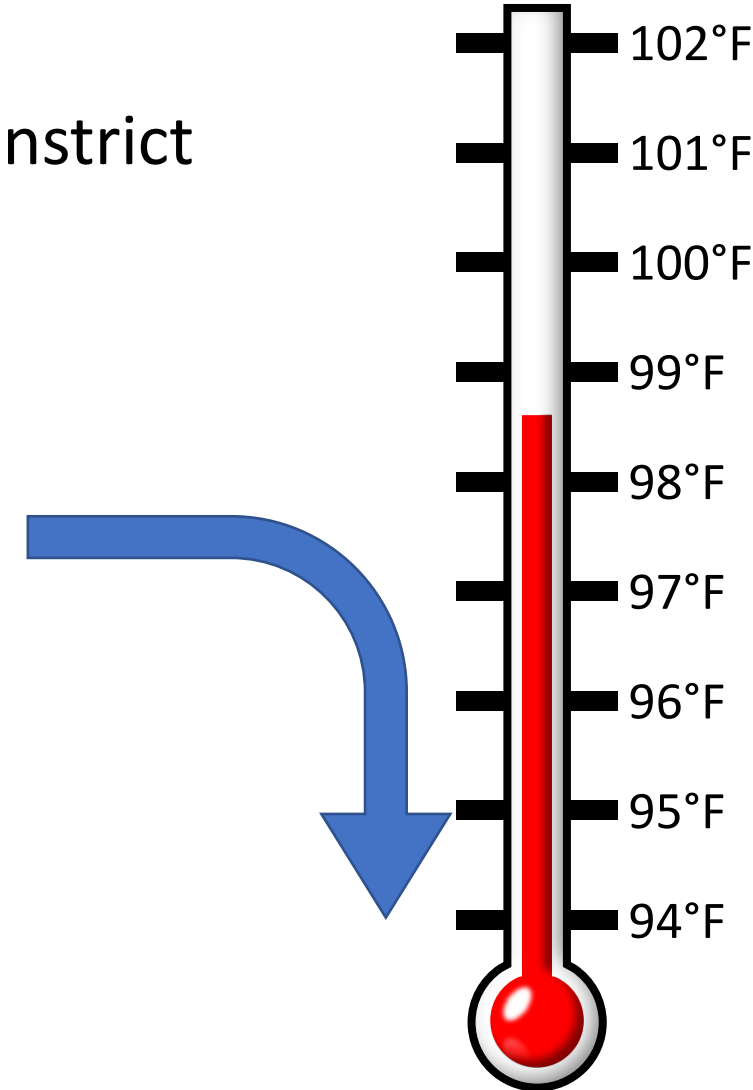


Canoeing Safety

First-Aid – Cold-Water Shock

- When cold water hits skin – blood vessels in skin constrict
- This results in a sudden increase in blood pressure

Cold-Water Shock can result in a sudden Heart Attack or Stroke

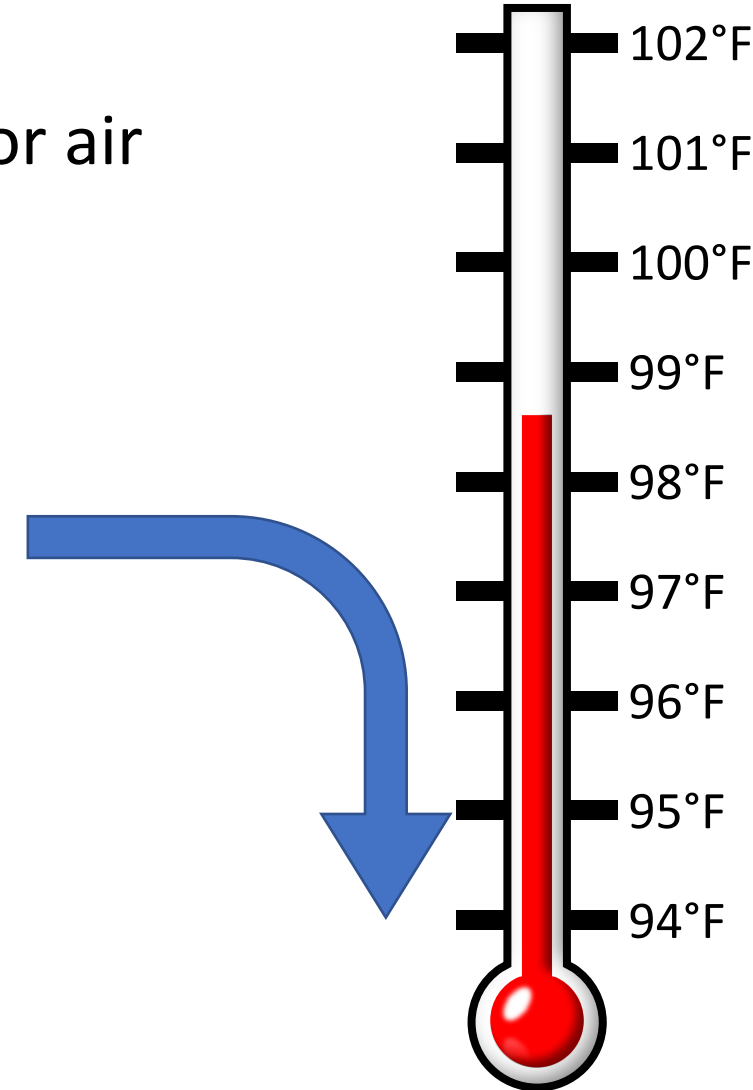


Canoeing Safety

First-Aid – Cold-Water Shock

- When hitting cold water, many will suddenly gasp for air
- Breathing can increase 10-fold
- This can lead to panic
- Lasts for only a few minutes

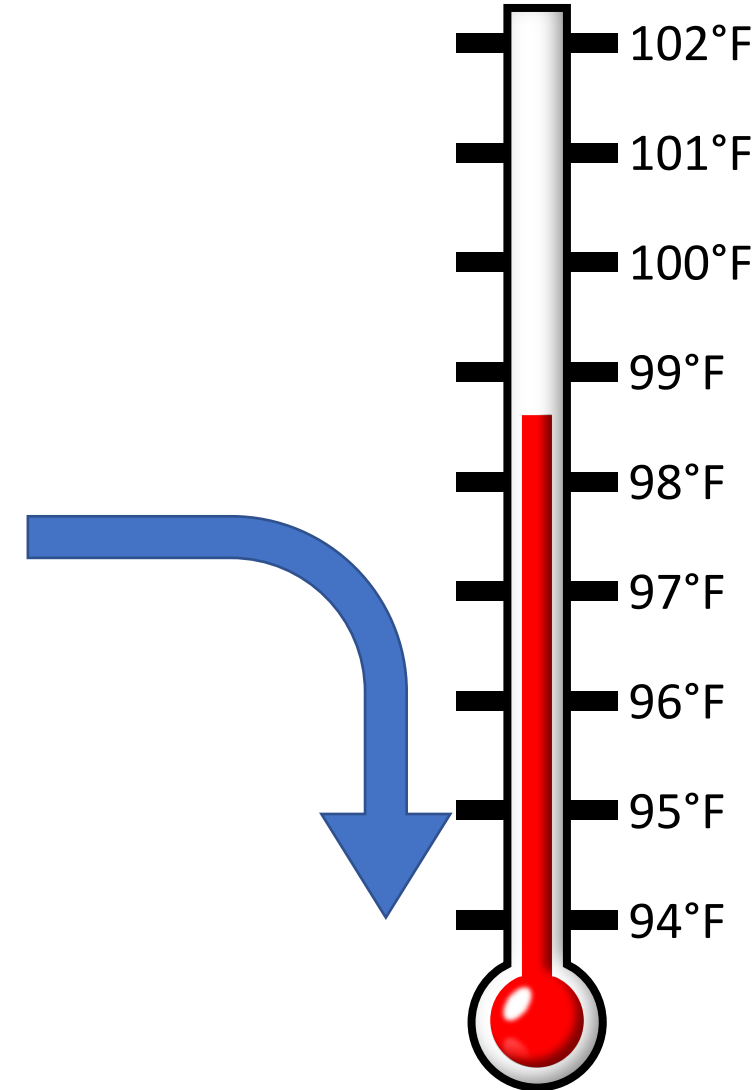
Panic and uncontrolled breathing
can lead to drowning



Canoeing Safety

First-Aid – Cold-Water Shock - Treatment

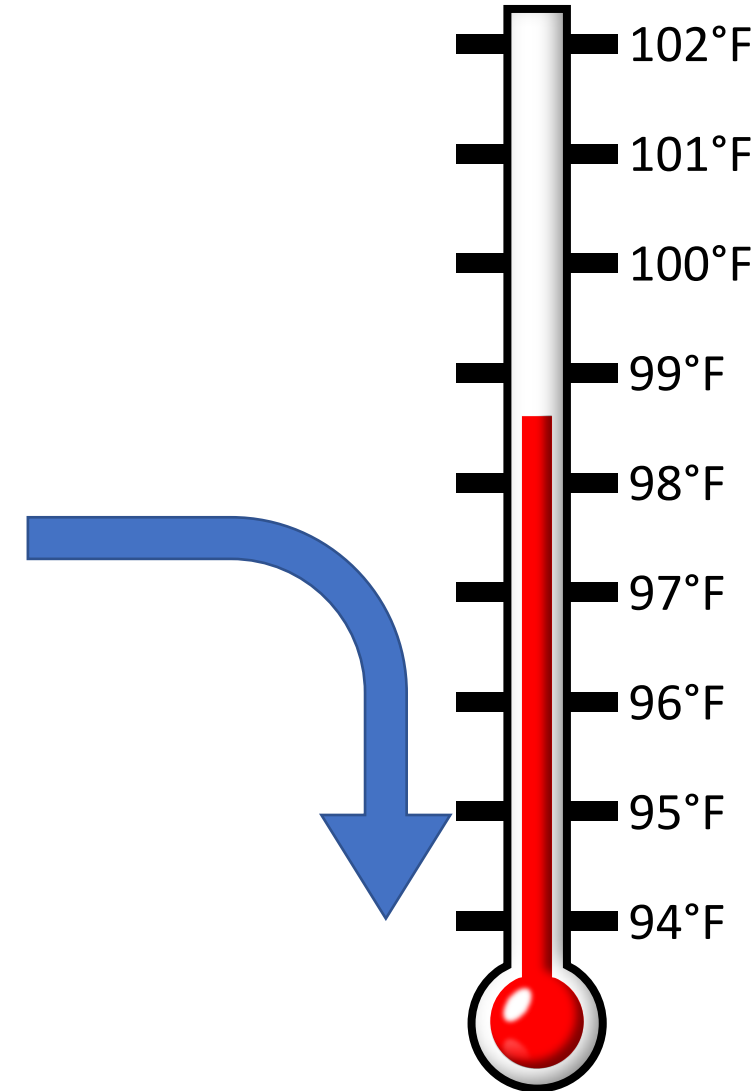
- If you Enter Water Unexpectedly
- Take a minute to catch your breath
- Relax and float
- Keep calm and call for help or swim to safety



Canoeing Safety

First-Aid – Cold-Water Shock - Treatment

- If you plan to Enter Water Intentionally
- Check water temperature
- Wear wet or dry suit depending on temperatures
- Wear a Personal Flotation Device
 - Helps you float
 - Dampens initial shock
 - Insulates you from cold

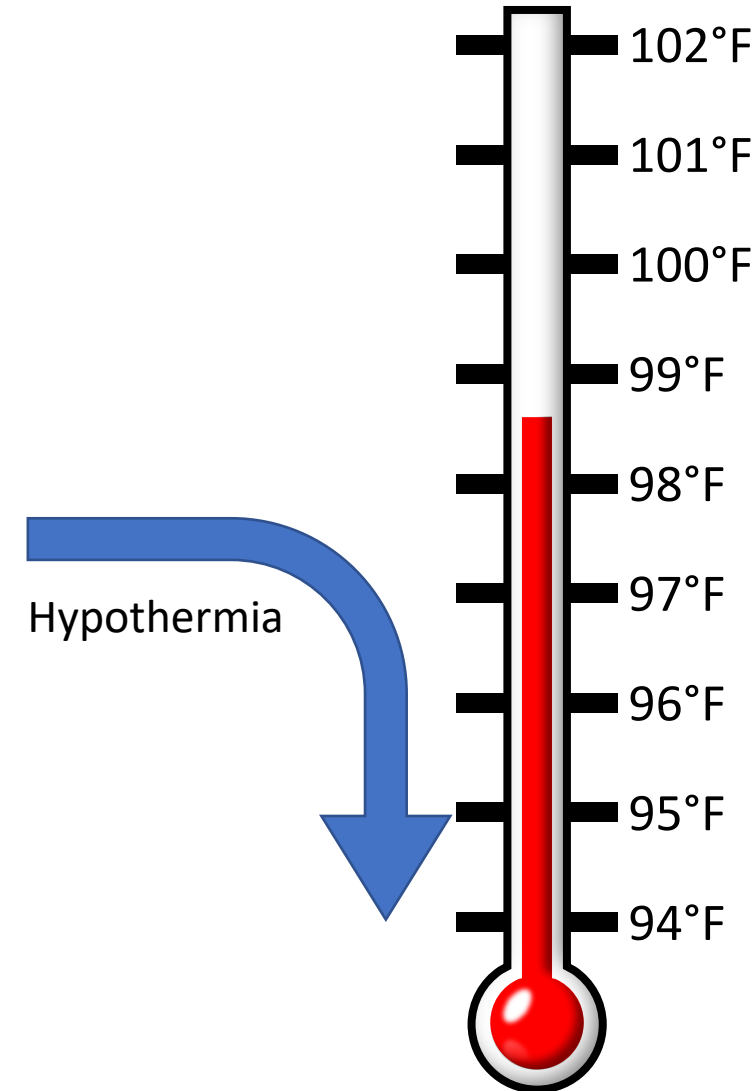


Cold Weather Injuries

First-Aid – Swim Failure

- Muscles and nerves in arms and legs cool quickly
- Dexterity, hand grip and speed can drop by 60-80%
- Onset is between 3-30 minutes

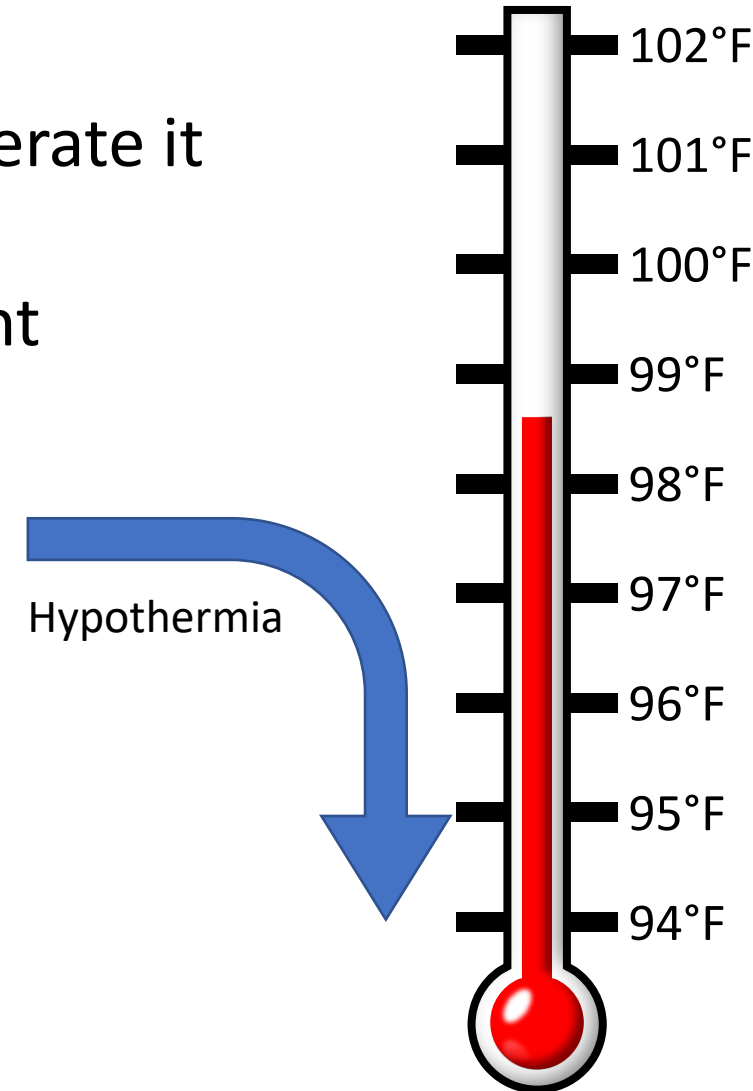
You have about 10 minutes
to get to safety



Cold Weather Injuries

First-Aid – Hypothermia

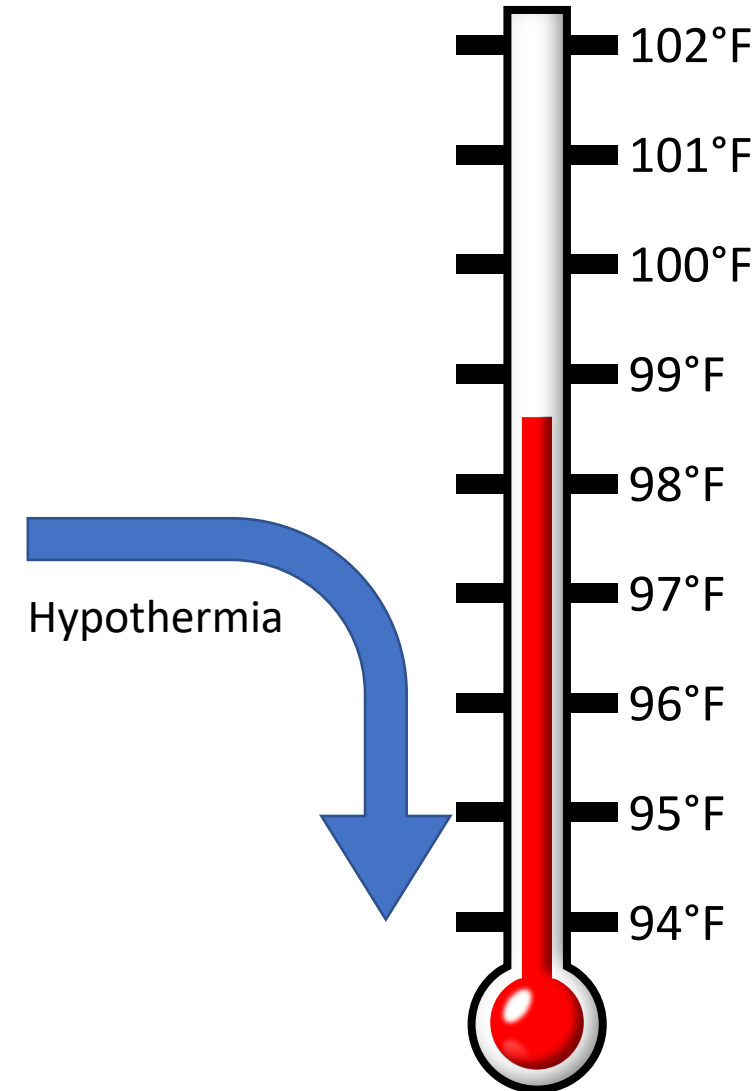
- Occurs when body loses heat faster than it can generate it
- Danger if inadequately dressed for cold environment



Cold Weather Injuries

First-Aid – Hypothermia

- Danger compounded by:
 - Rain
 - Wind
 - Hunger
 - Exhaustion
 - Dehydration
- Being wet and cold is a dangerous combination
- Cold water transfers heat 25 faster than cold air

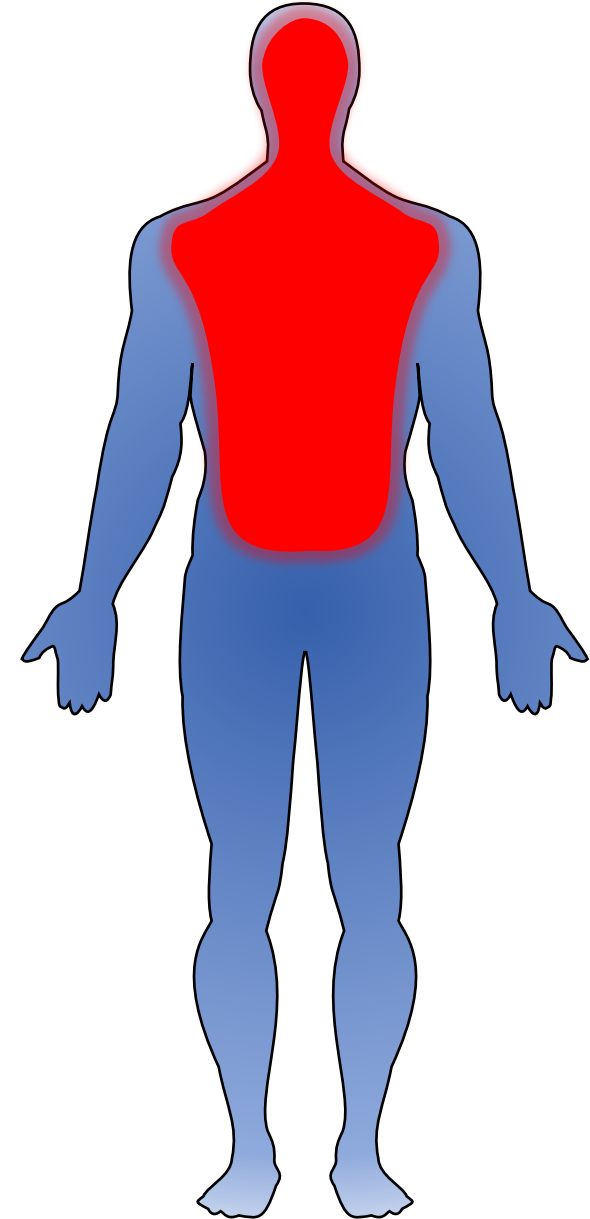


Cold Weather Injuries

First-Aid – Hypothermia – Symptoms

- Numbness
- Fatigue
- Irritability
- Slurred speech
- Uncontrollable shivering
- Poor judgement or decision making

Can set in in 30 minutes

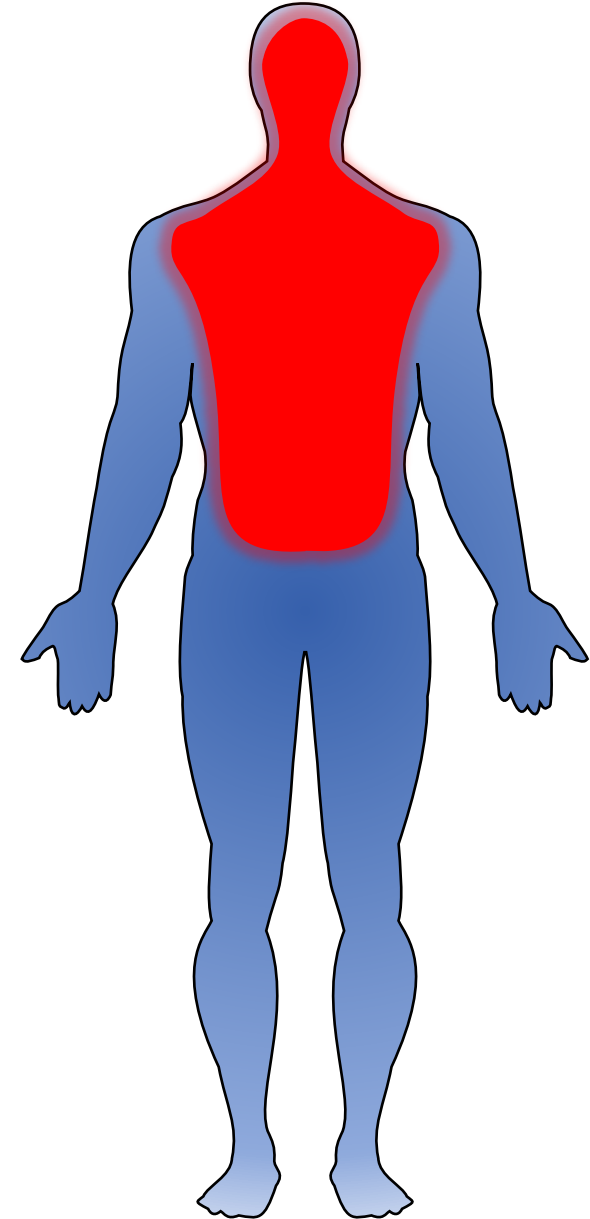


Cold Weather Injuries

First-Aid – Hypothermia – Symptoms

- Eventually leads to Unconsciousness

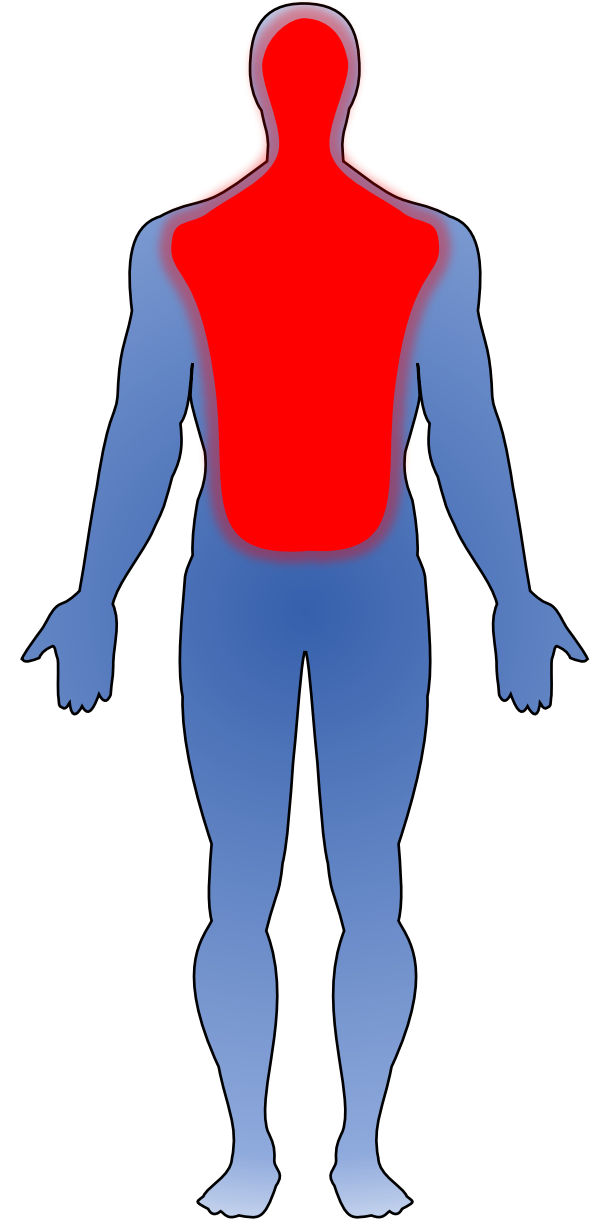
Takes approximately an Hour



Cold Weather Injuries

First-Aid – Hypothermia – 1-10-1 Rule

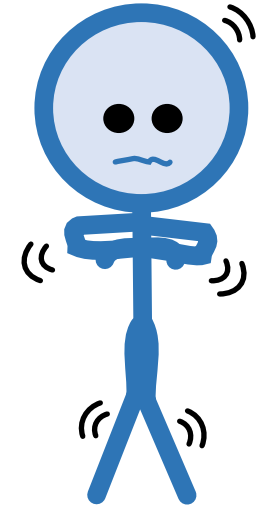
- **1-10-1 Rule**
 - 1 Minute to Catch your Breath
 - 10 Minutes to Swim to Safety
 - 1 Hour before Unconscious



Cold Weather Injuries

First-Aid – Hypothermia – First-Aid

- Get the victim's body warm again!
 - Move to building or tent
 - Remove wet clothing
 - Dry off
 - Warm dry clothes and/or blankets
 - Warm, sweet liquids if conscious
 - Warm water in water bottles, wrapped in towel and place in armpits
 - Observe
- **NEVER Immerse in Warm/Hot Water** – this can be lethal!



Cold Weather Injuries

First-Aid – Dehydration

- The body is made up of 70% water
- Proper hydration is required for basic body functions
- Dehydration increases the risk of both cold and heat injuries
- Cold and heat both increase the risk of Dehydration



Cold Weather Injuries

First-Aid – Dehydration

- Water is lost via:
 - Breathing
 - Sweating
 - Digestion
 - Urination



Cold Weather Injuries

First-Aid – Dehydration – Symptoms

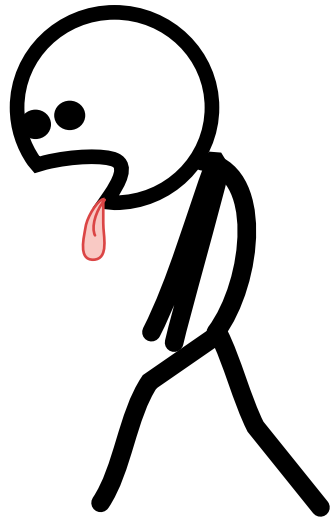
- Signals of **Mild** dehydration
 - Fatigue
 - Increased thirst
 - Dry lips
 - Dark yellow urine



Cold Weather Injuries

First-Aid – Dehydration – Symptoms

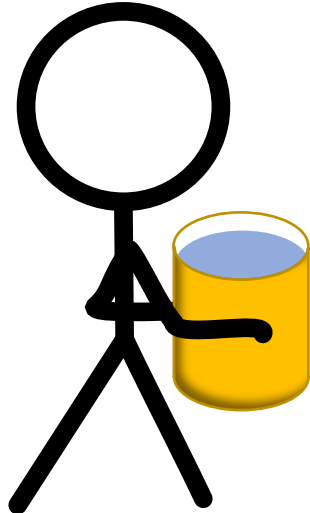
- Signals of **Moderate and Severe** dehydration
 - Dry mouth with little saliva
 - Dry skin
 - Weakness
 - Dizziness
 - Confusion
 - Nausea
 - Fainting
 - Muscle cramps
 - Loss of appetite
 - Decreased sweating
 - Decreased urine production
 - Less frequent urine
 - Dark brown urine



Cold Weather Injuries

First-Aid – Dehydration – First-Aid

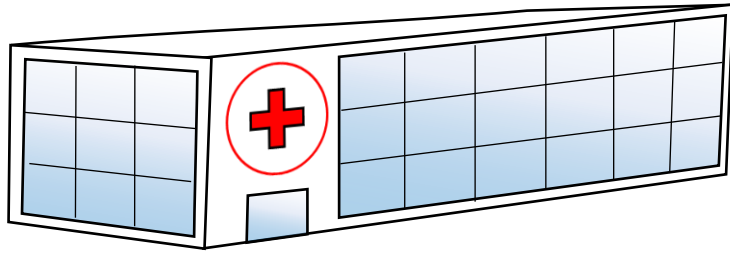
- For **Mild** Dehydration:
 - Drink plenty of water or sports drinks
 - Drink 1-2 quart/liters over 2-4 hours
 - Rest for 24 hours and continue to hydrate
 - Avoid excessive physical activity
 - May take 36 hours to replace lost fluids



Cold Weather Injuries

First-Aid – Dehydration – First-Aid

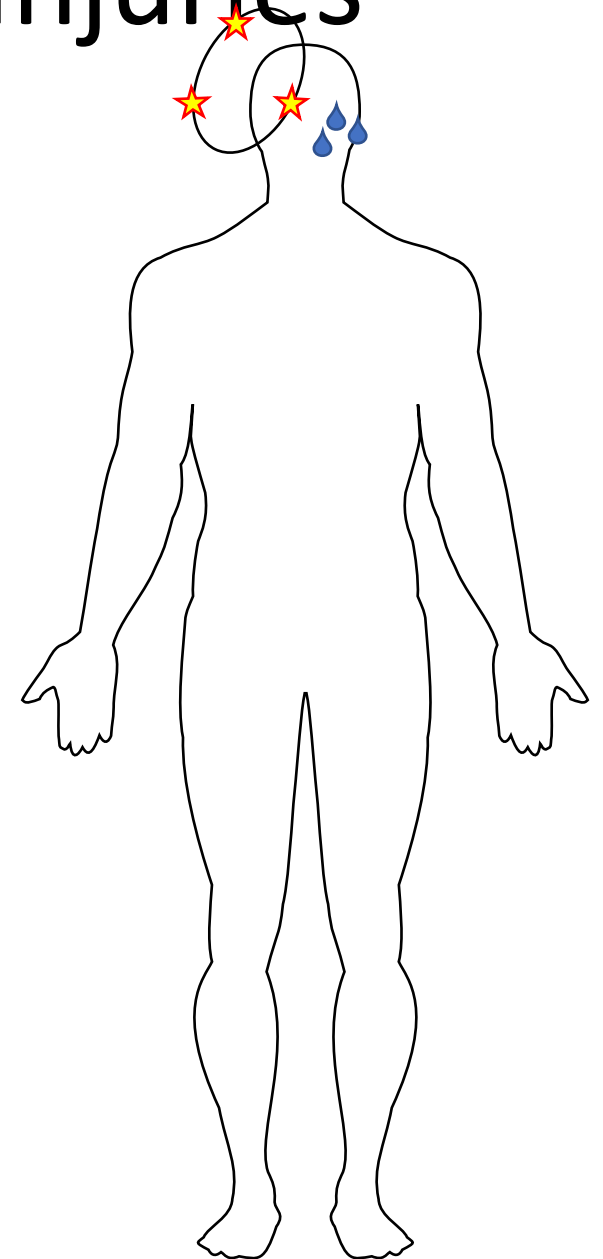
- **Moderate/Severe** dehydration requires Emergency Care
 - Needs to be treated in hospital
 - Needs IV fluids



Cold & Heat Conditions & Injuries

First-Aid – Heat Exhaustion

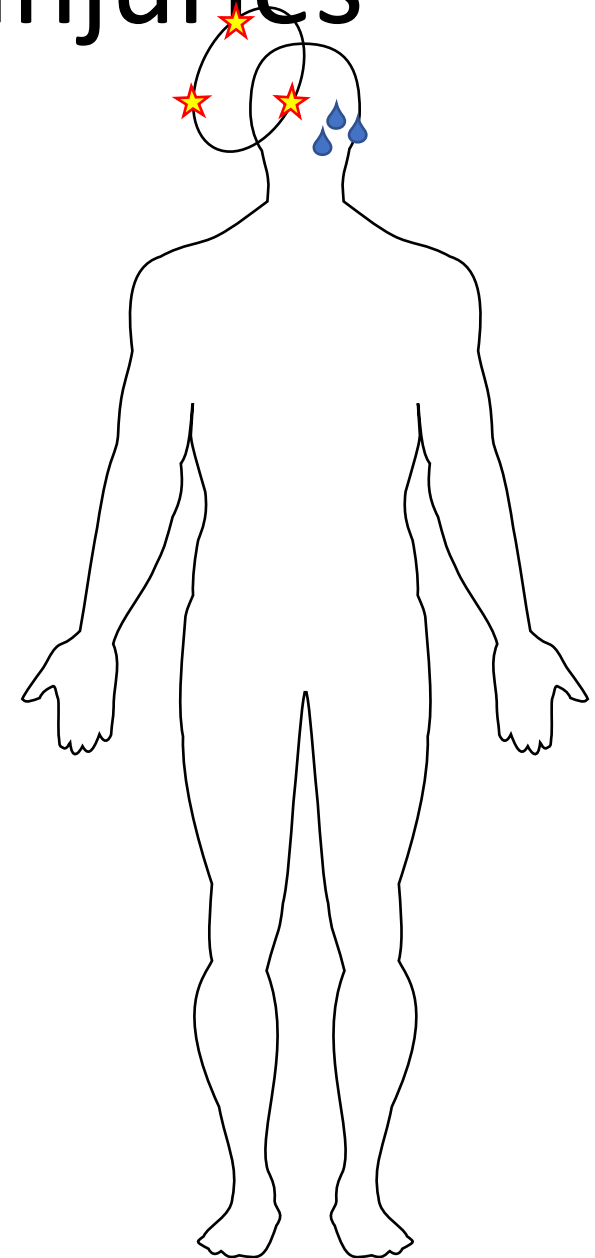
- Brought on by warm weather
- Often associated with dehydration or inadequate acclimation to heat
- Common during outdoor activities in hot environments



Cold & Heat Conditions & Injuries

Heat Exhaustion – Symptoms

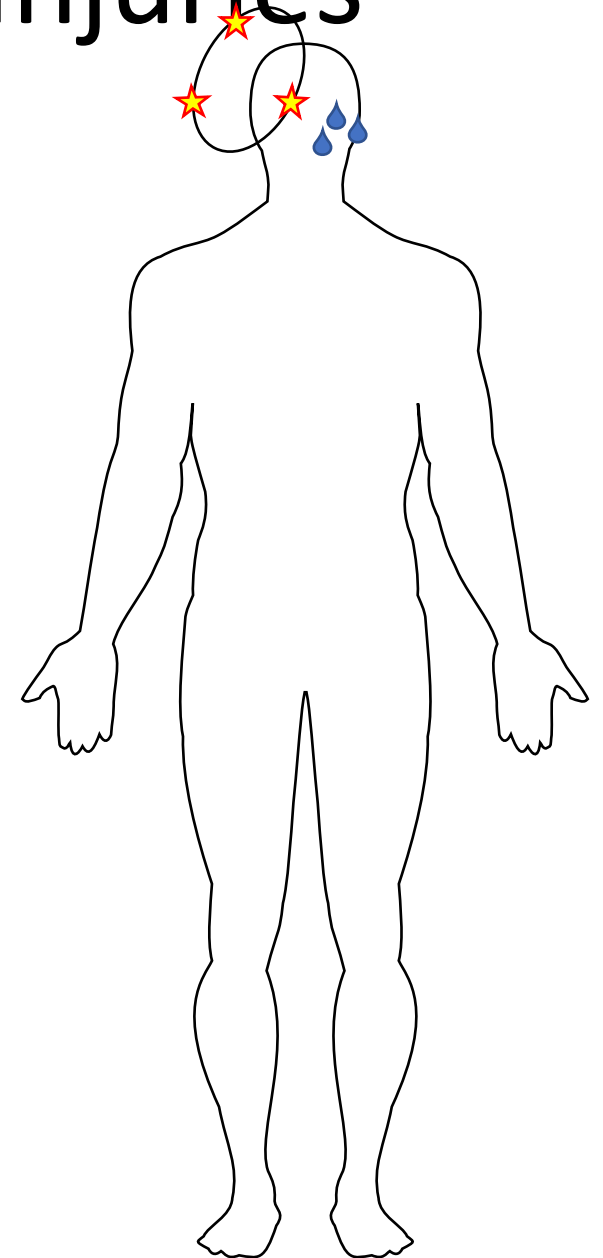
- Symptoms of Heat Exhaustion include:
 - Severe lack of energy
 - General weakness
 - Headache
 - Nausea
 - Faintness
 - Sweating
 - Cool, pale, moist skin
 - Rapid pulse



Cold & Heat Conditions & Injuries

Heat Exhaustion – First-Aid

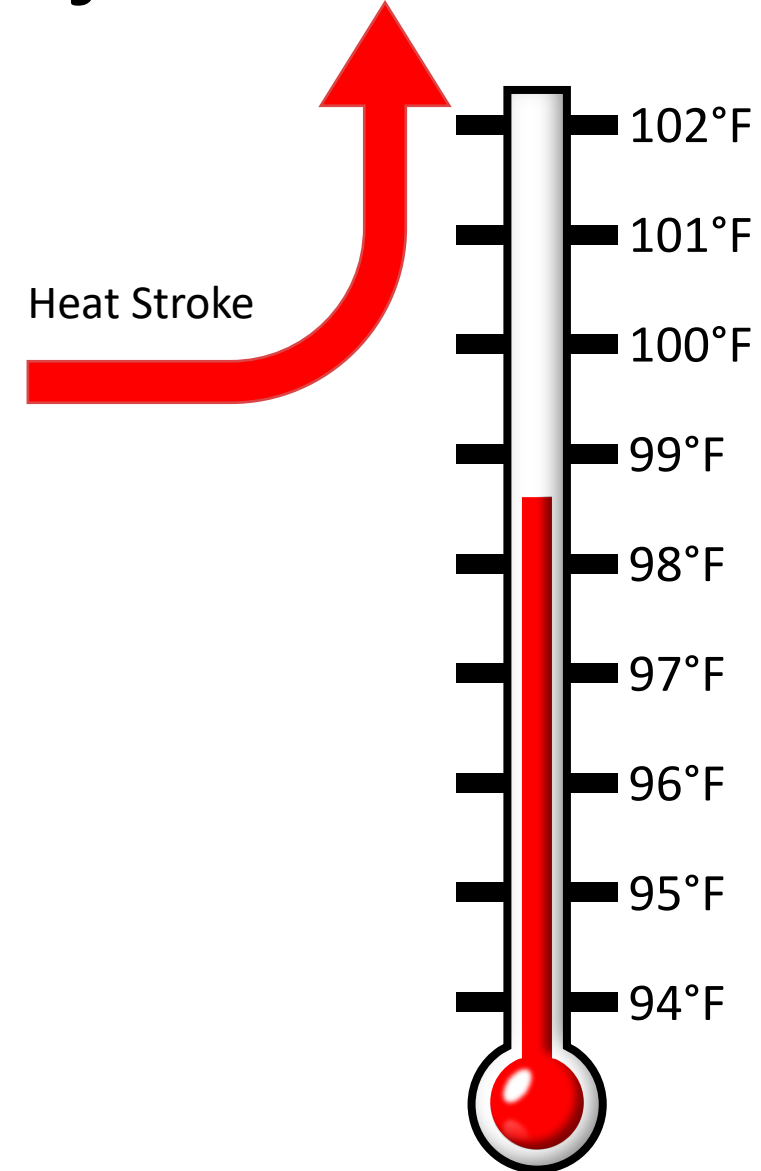
- First-Aid includes:
 - Get victim in Shade
 - Encourage to drink fluids
 - Apply cool, wet towels or cloths to the skin
 - Wet victim's clothing with cool water and fan
 - Raising legs can help them feel better
- Victim should feel better in two or three hours
 - Take it easy the rest of the day



Cold & Heat Conditions & Injuries

Heat Stroke

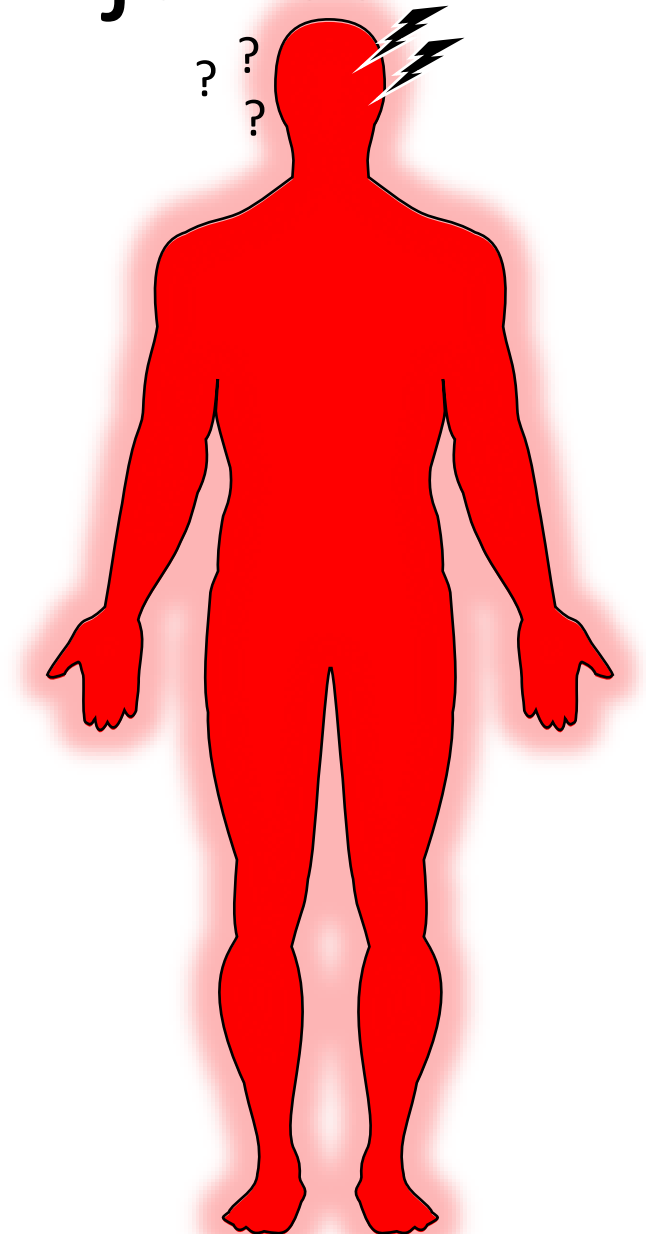
- Body overheats to the point of being life-threatening (105°F)
- Body loses ability to cool itself
- May occur with over-exertion in hot weather
- Also occurs with elderly in hot climates



Cold & Heat Conditions & Injuries

Heat Stroke - Symptoms

- Symptoms include:
 - Hot sweaty (but sometimes dry) skin
 - Confusion
 - **Disorientation**
 - Rapid pulse
 - Shallow breathing
 - Vomiting
 - Seizures



Irritability, Ataxia (balance problems), or Confusion are hallmark signs of Heat Stroke

Heat Exhaustion

Faint or dizzy

Excessive Sweating



Cool, pale,
clammy skin

Nausea or vomiting

Rapid, weak pulse

Muscle cramps

Heat Stroke

Throbbing Headache

No Sweating

Red, hot
dry skin

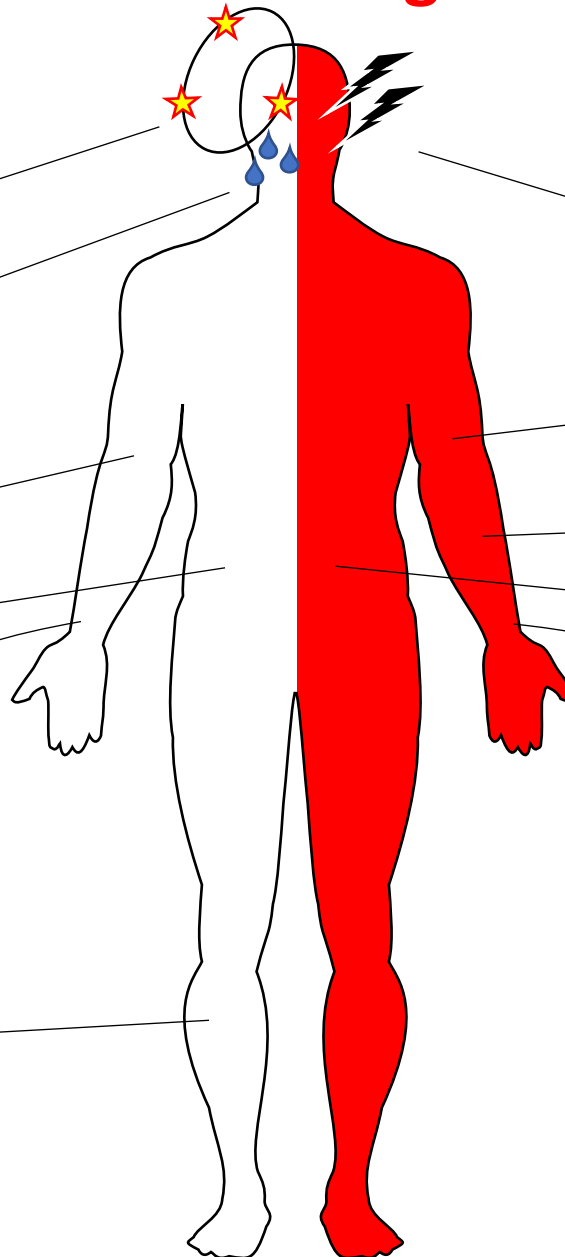


$\geq 104^{\circ}$

Nausea or vomiting

Rapid, strong pulse

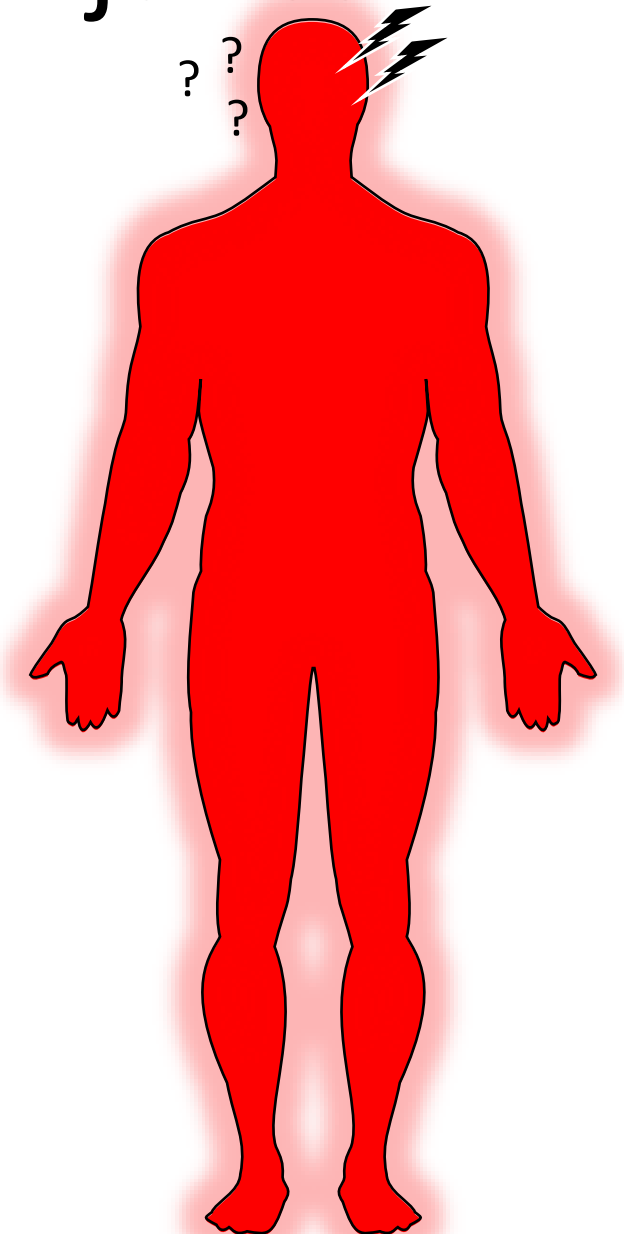
May lose
consciousness
or have seizures



Cold & Heat Conditions & Injuries

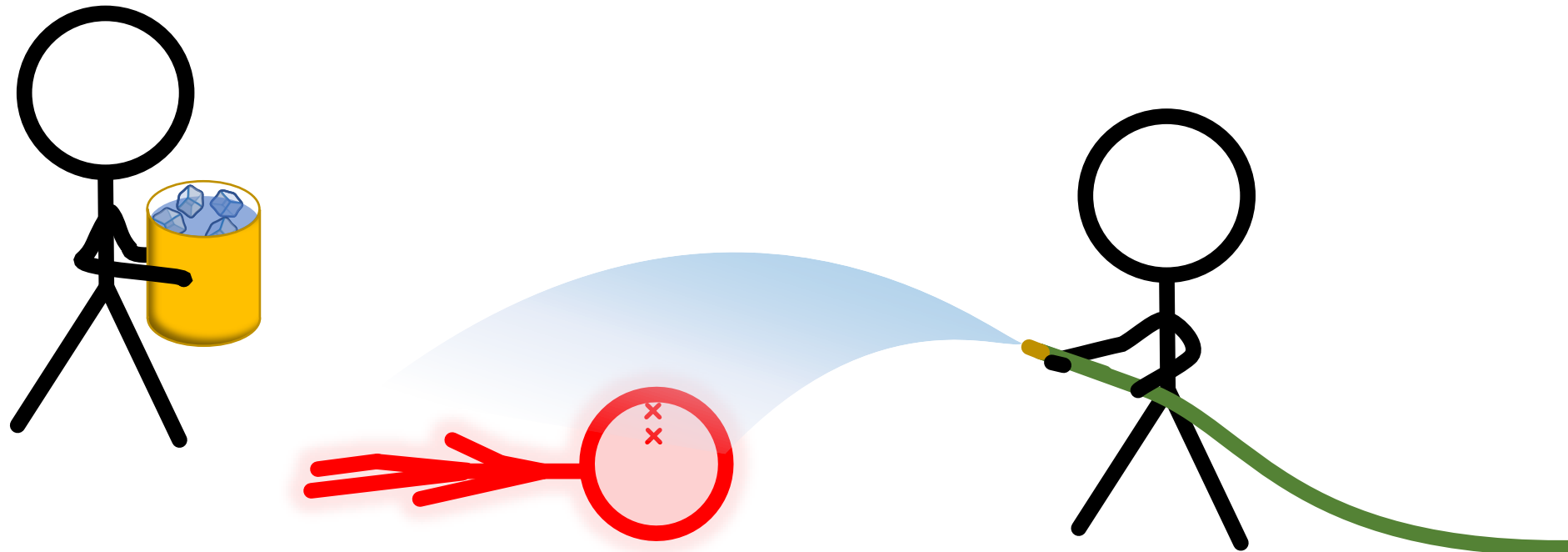
Heat Stroke – First-Aid

- This is **LIFE-THREATENING**
- Cool immediately!
- Call 911! Do it NOW!
- Cooling includes:
 - Immersion or spray of cold water
 - Ice packs wrapped in cloth in armpits and skin
 - Fanning
 - AC



Heat Injuries

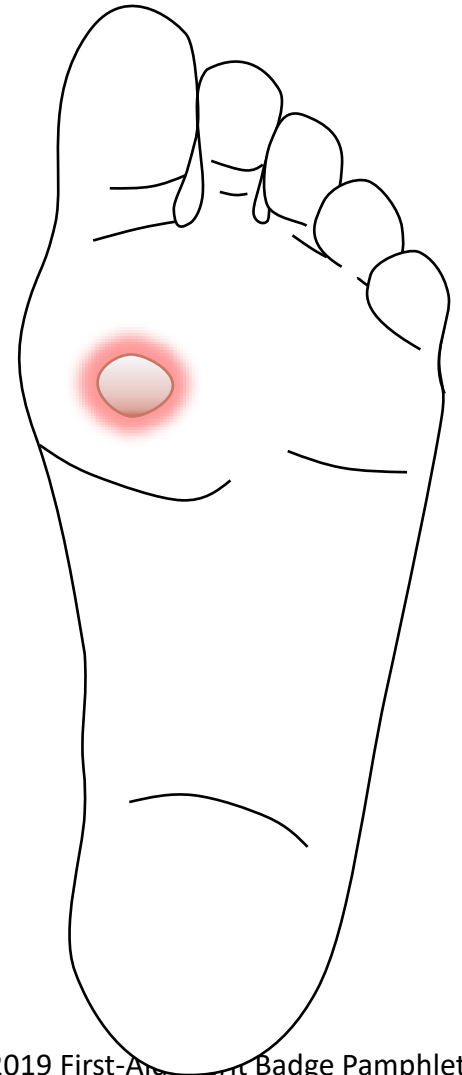
Heat Stroke – First-Aid



Minor Wounds and Injuries

Blisters on the Hand and Foot

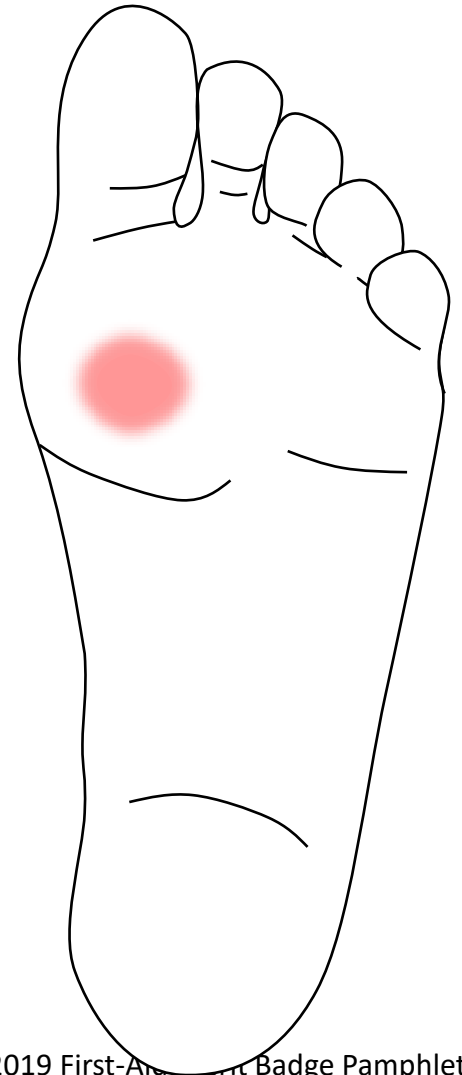
- Often referred to as “Friction Blisters”
- Blisters may form on hands if doing heavy or repetitive work
- Foot blisters are a common backpacking injury



Minor Wounds and Injuries

Blisters on the Hand and Foot – Hot Spot

- **Hot Spot** – tender area before blister begins to form
 - Stop immediately!
 - Treat this before it becomes a blister



Minor Wounds and Injuries

Blisters on the Hand and Foot – Hot Spot

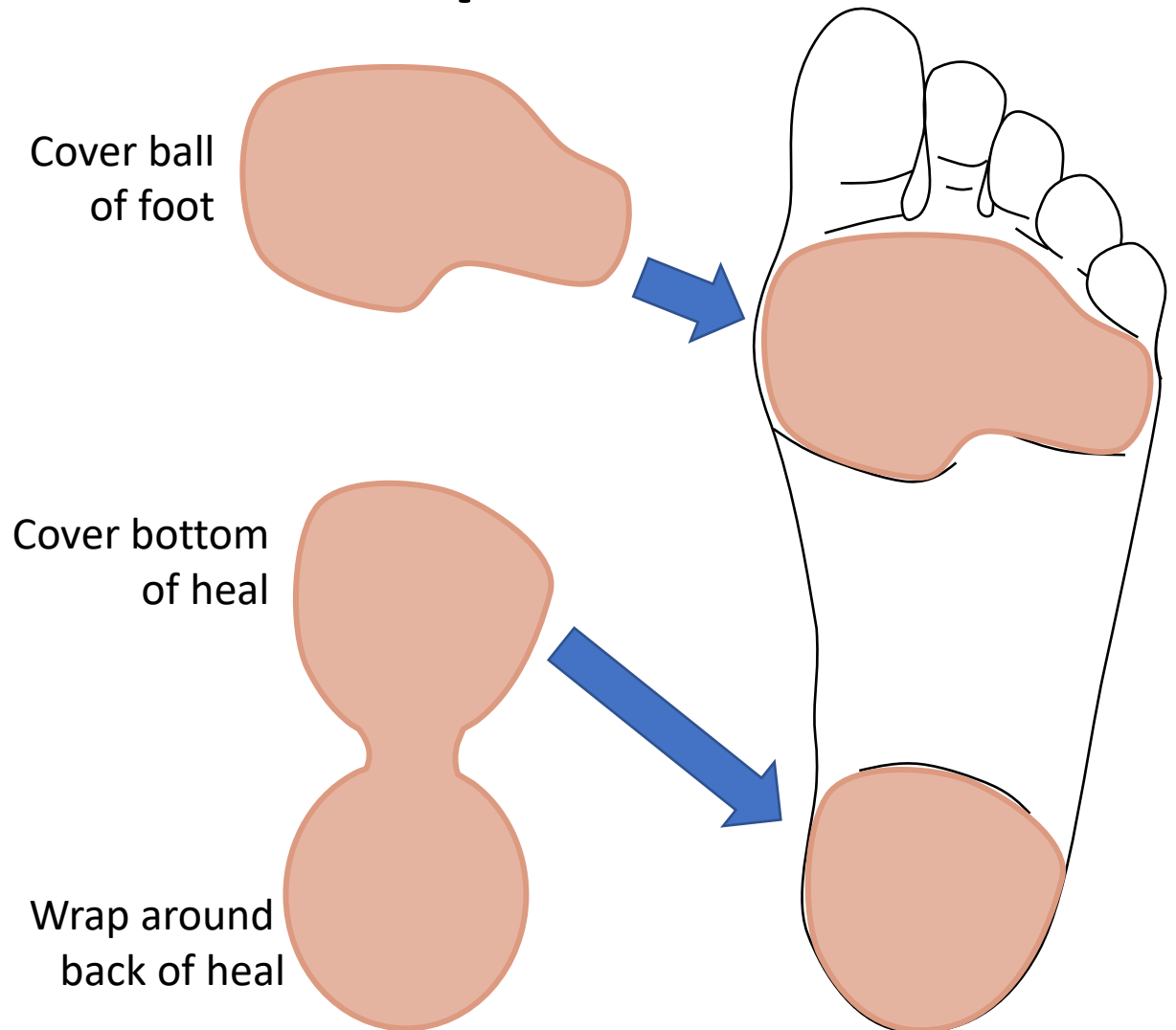
- Hot Spot First-Aid

Know your feet

Know your Hot Spots

Moleskin **BEFORE**
and prevent blisters

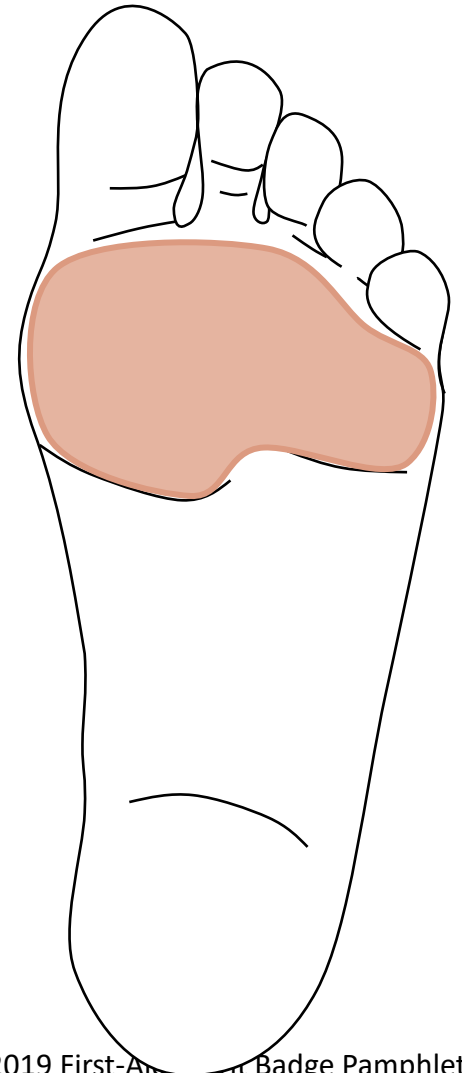
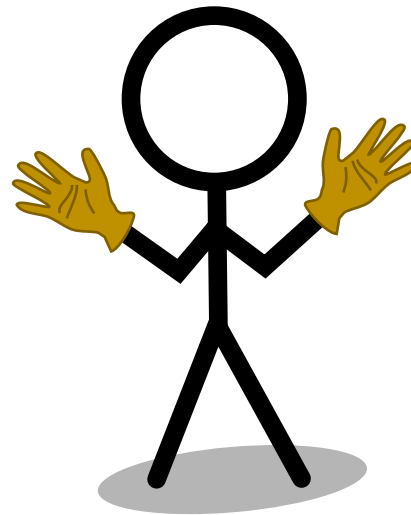
No Wrinkles!



Minor Wounds and Injuries

Blisters on the Hand and Foot

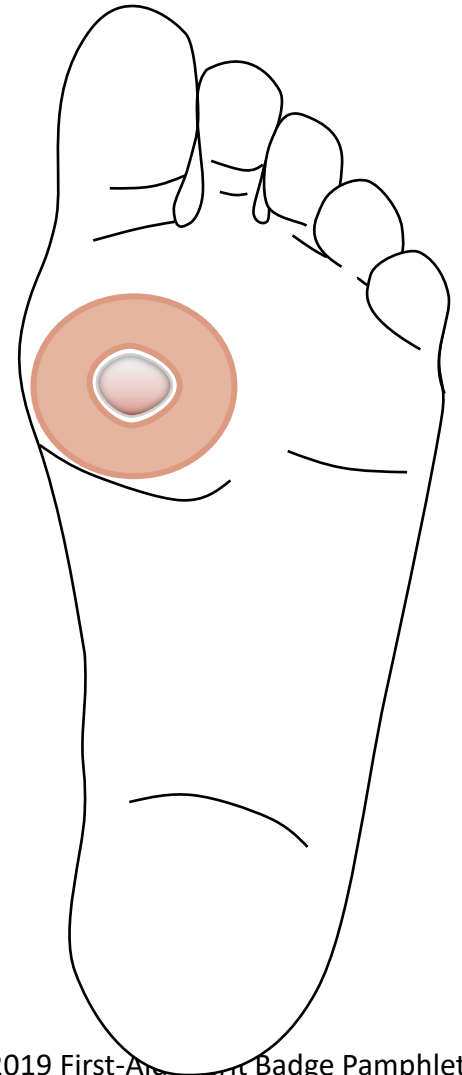
- **Prevention - Hand**
 - Wear gloves when working
- **Prevention - Foot**
 - Wear shoes or boots that fit
 - Change socks if become wet or sweaty
 - Treat Hot Spots early



Minor Wounds and Injuries

Blisters on the Hand and Foot

- **First-Aid**
 - Moleskin donut around blister
 - This reduces pressure on blister
 - Special blister products can help
 - SecondSkin
 - Blist-O-Ban





Minor Wounds and Injuries

Blisters on the Hand and Foot - Special

- **Expanding Blister**
 - If you must continue to walk with a blister, it may expand or rupture
 - At times, it will be better to preemptively drain it
 - This needs to be done as cleanly as possible
 - There is still a risk of infection as drainage creates an entrance through the skin

Minor Wounds and Injuries

Blisters – Drainage

- Clean, Decompress and Dress

Clean Area

- Soap and water is fine
- Betadine is better
- Wipe with alcohol

Sterilize Needle

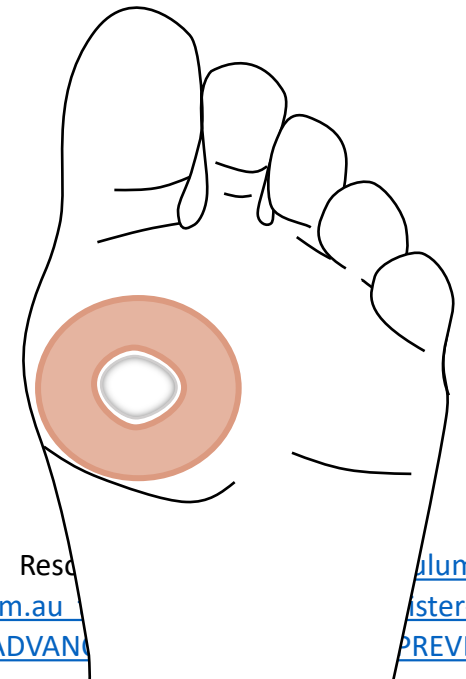
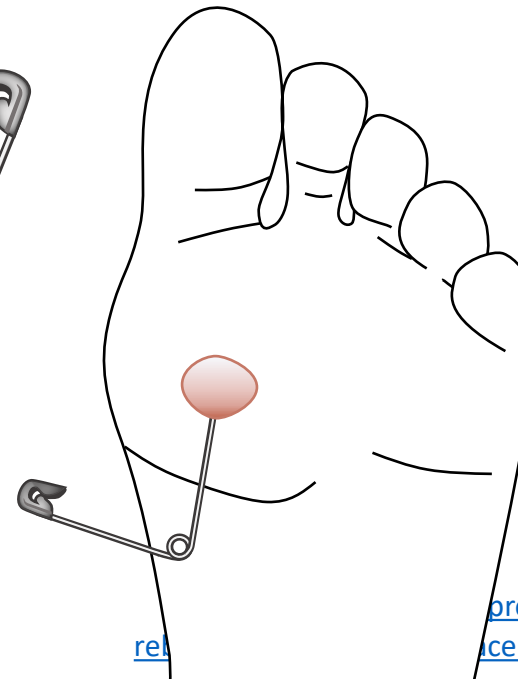
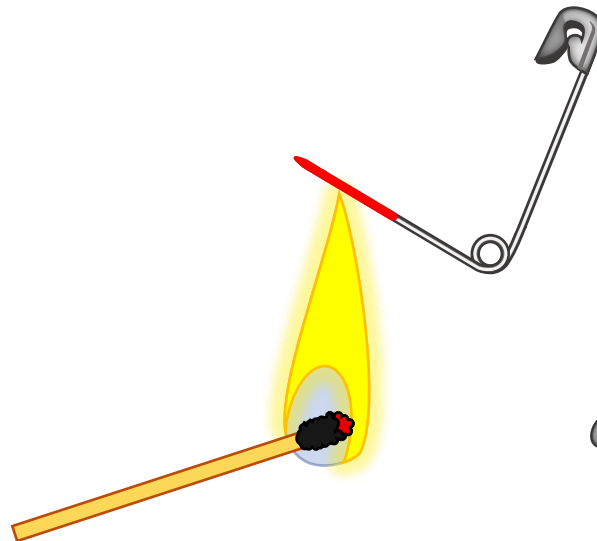
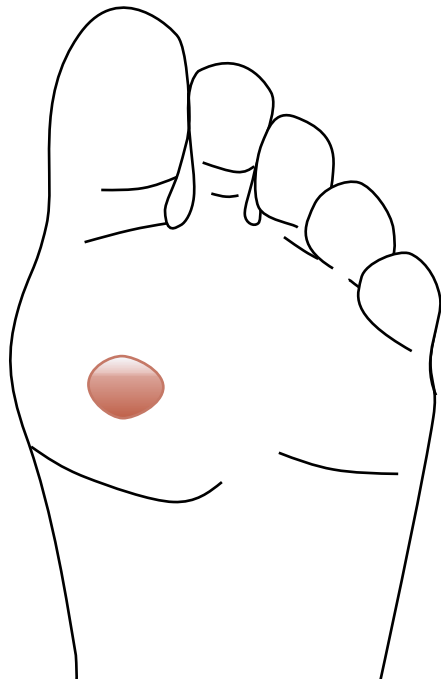
- Heat until red
(and allow to cool)
- or Use rubbing alcohol

Pierce Blister

- Pierce base of blister
- Make one or more holes
- Avoid Cutting with knife

Cover Blister

- Ideally first use Paper Tape
- then Tincture of Benzoin
- then Moleskin or Flex Tape



Resc

prevention.com.au

ice.com THE-ADVANCE

ulum June 2016

ster-prevention

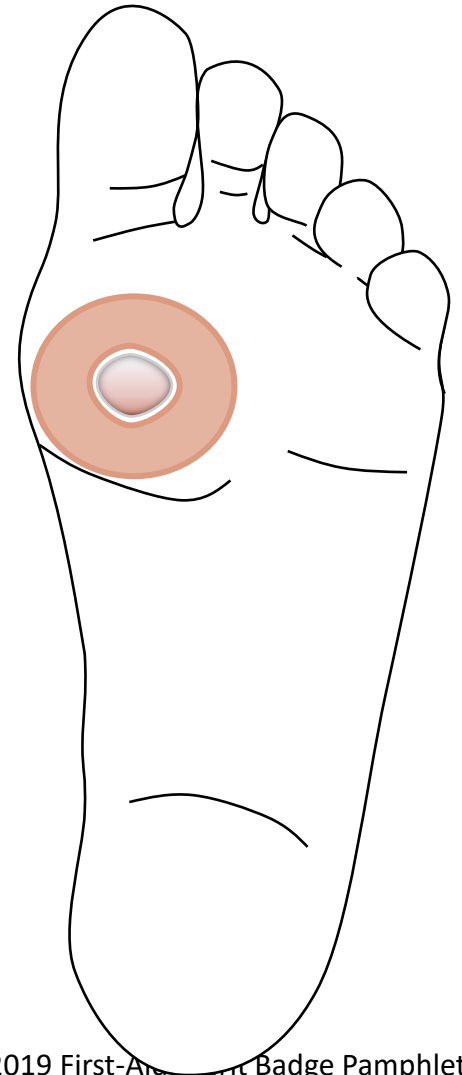
PREVENTION.pdf



Minor Wounds and Injuries

Blisters on the Hand and Foot - Special

- **Ruptured Blisters**
 - Blisters should be kept intact if possible
 - Ruptured blisters are at high risk of infections
 - **First-Aid** – keep them clean and treat as a cut

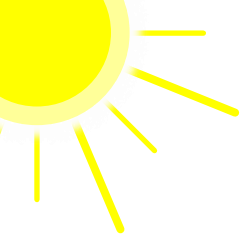




Minor Wounds and Injuries

Blisters on the Hand and Foot - Special

- **Blister or open wound of foot and Diabetes**
 - People with diabetes are at risk of severe complications
 - They should follow up with a medical provider if they have a wound on their foot



Sun Burns

Burns – Severity – 1st Degree Sunburn

- Only affects the outer most layer of skin
- **Symptoms**
 - Painful
 - Reddened skin

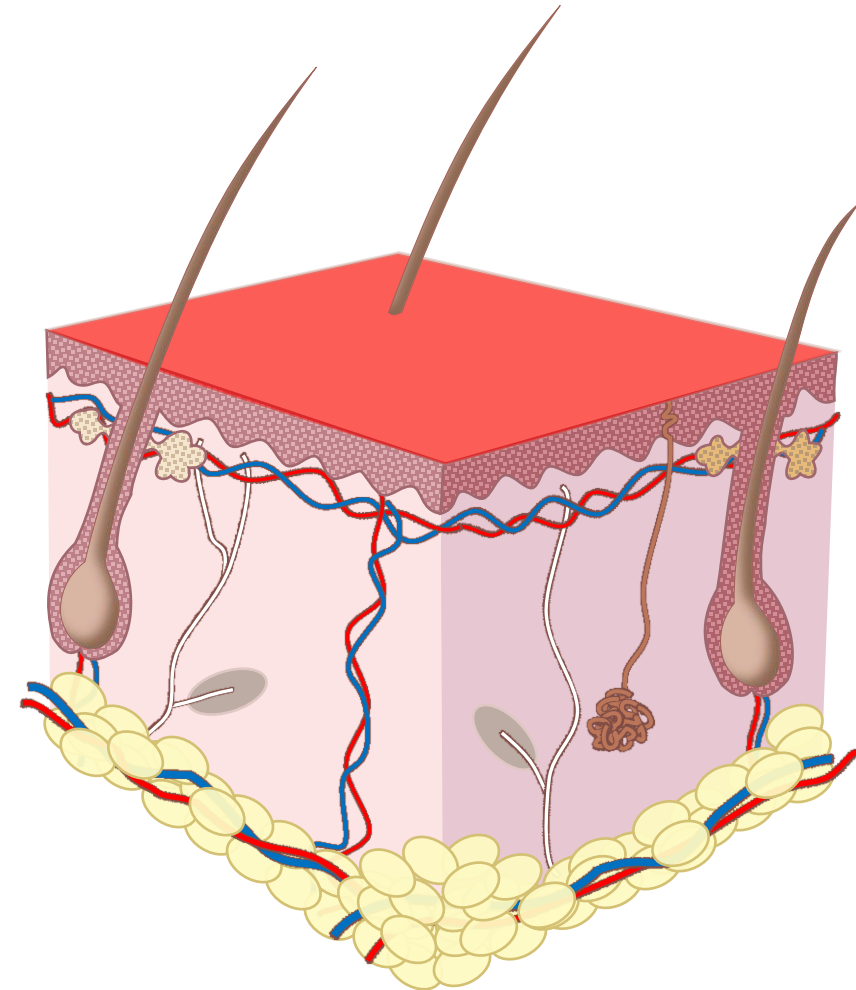
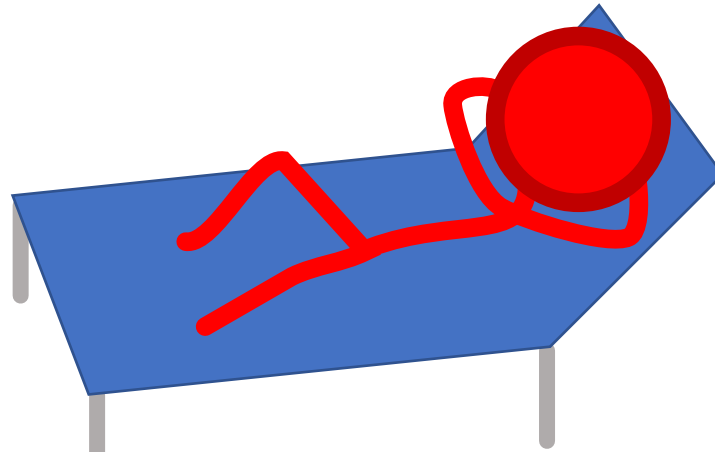


Image Source: U.S. Army Medical Department Center and School Fort
Sam Houston, TX 78234-6100 Wound Care Subcourse MD0576

Sun Burns

Burns – Severity – 1st Degree Sunburn

- **First-Aid**
 - Generally does not require medical treatment unless
 - Covers more than 20% body surface

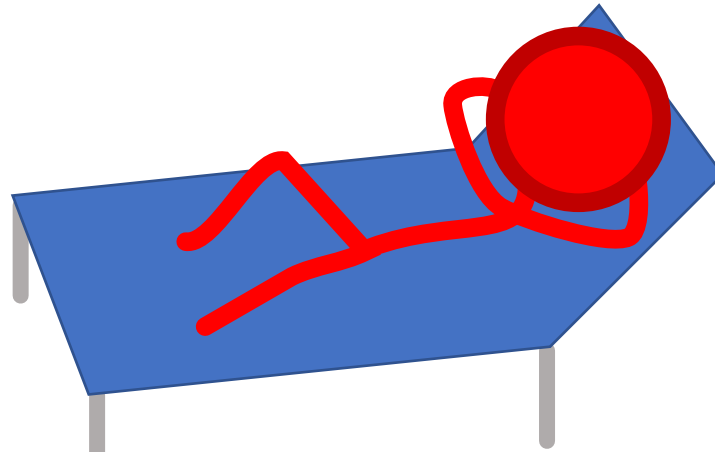
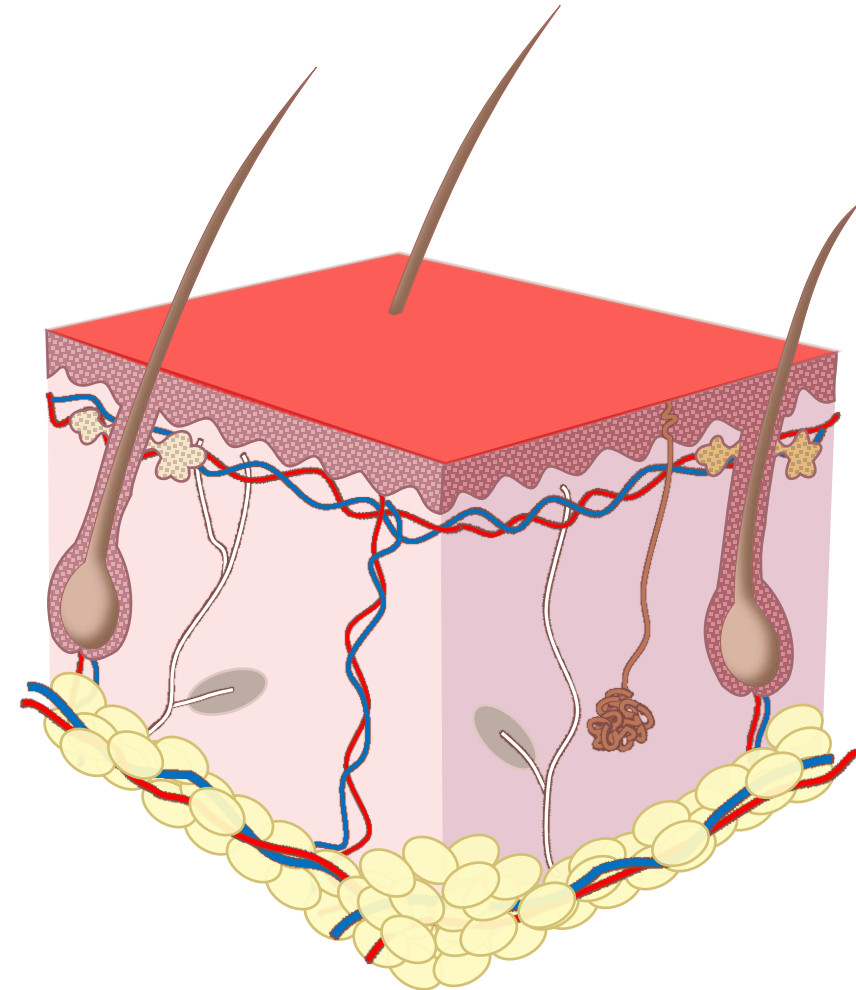


Image Source: U.S. Army Medical Department Center and School Fort
Sam Houston, TX 78234-6100 Wound Care Subcourse MD0576



Sun Burns

Burns – Severity – 1st Degree Sunburn

- **First-Aid**
 - Best Treatment
 - Avoidance and prevention
 - Cover exposed skin

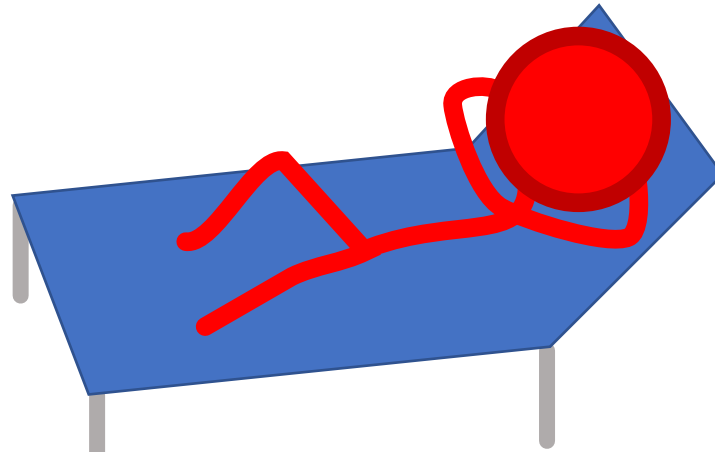
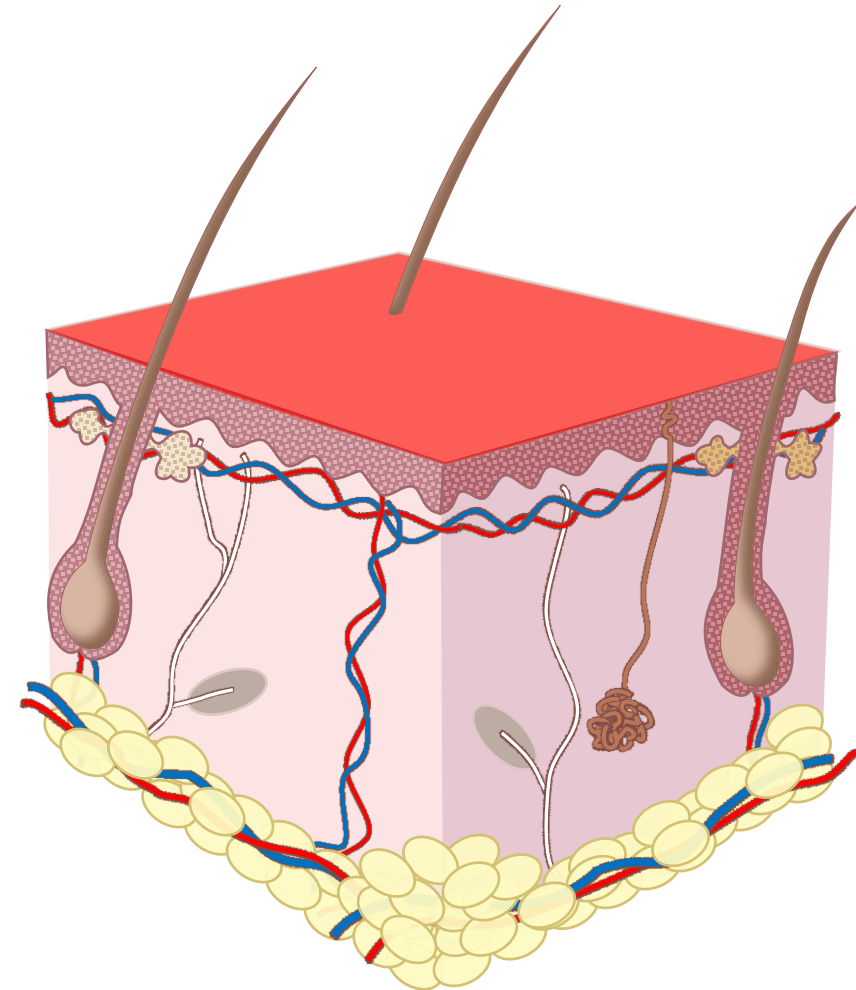


Image Source: U.S. Army Medical Department Center and School Fort
Sam Houston, TX 78234-6100 Wound Care Subcourse MD0576



Sprains and Strains



Sprains and Strains

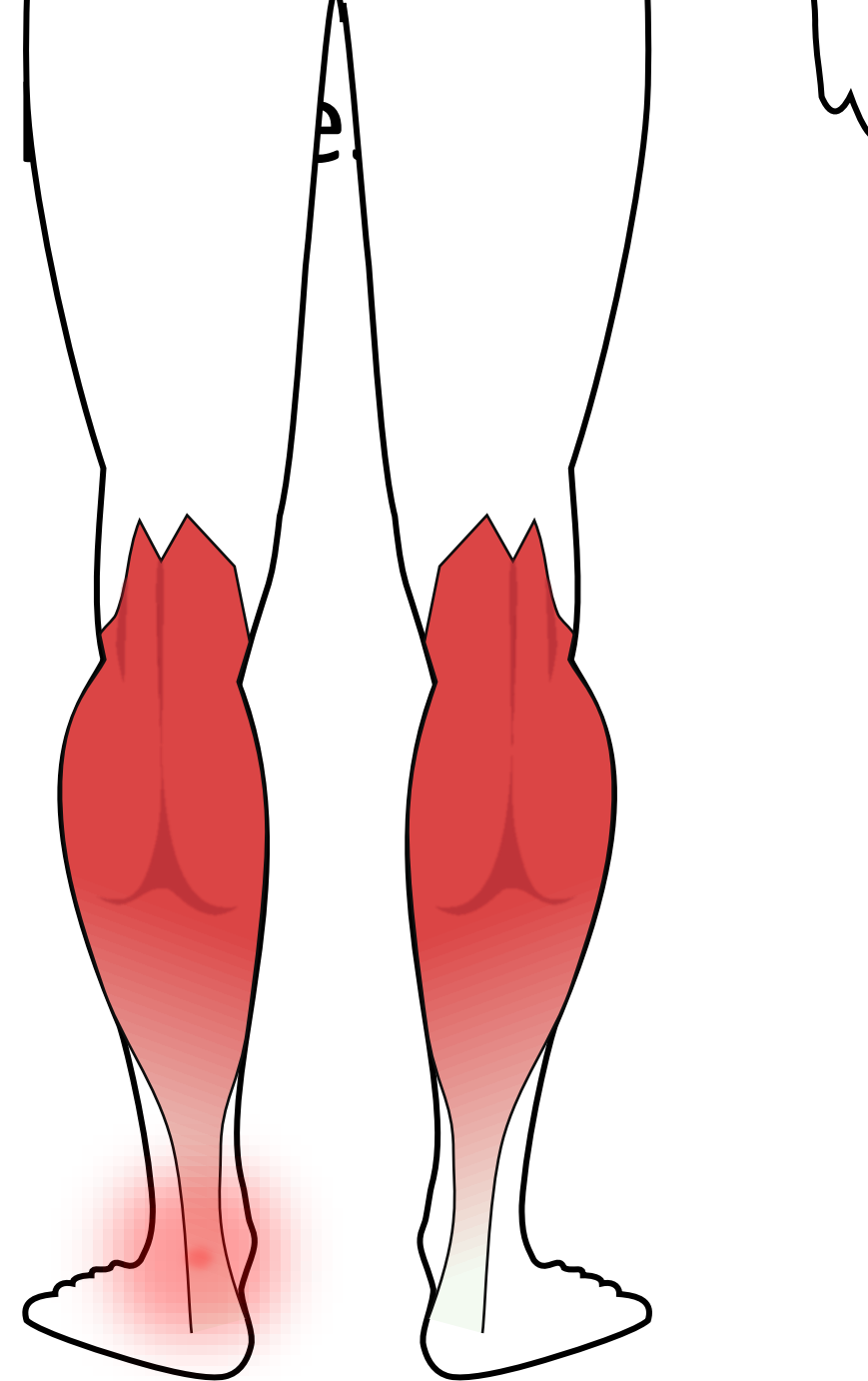
- **Sprains** are overstretched ligaments
 - bands that connect joints
 - Ankles
 - Wrists



Muscle, Joint and Bone

Sprains and Strains

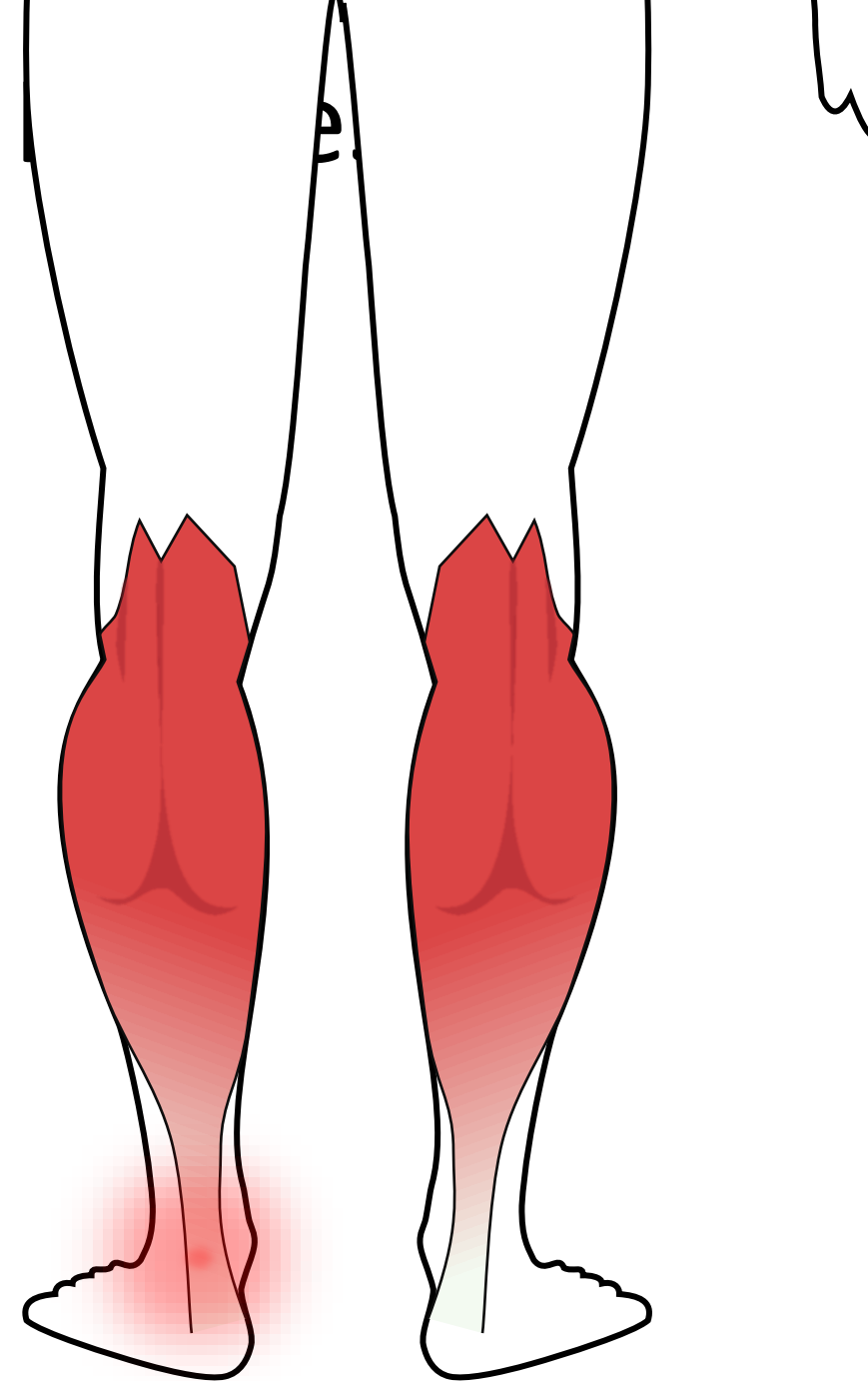
- **Strains** are overstretched tendons
 - bands that connect muscles
 - Lower back is a common site



Muscle, Joint and Bone

Sprains and Strains

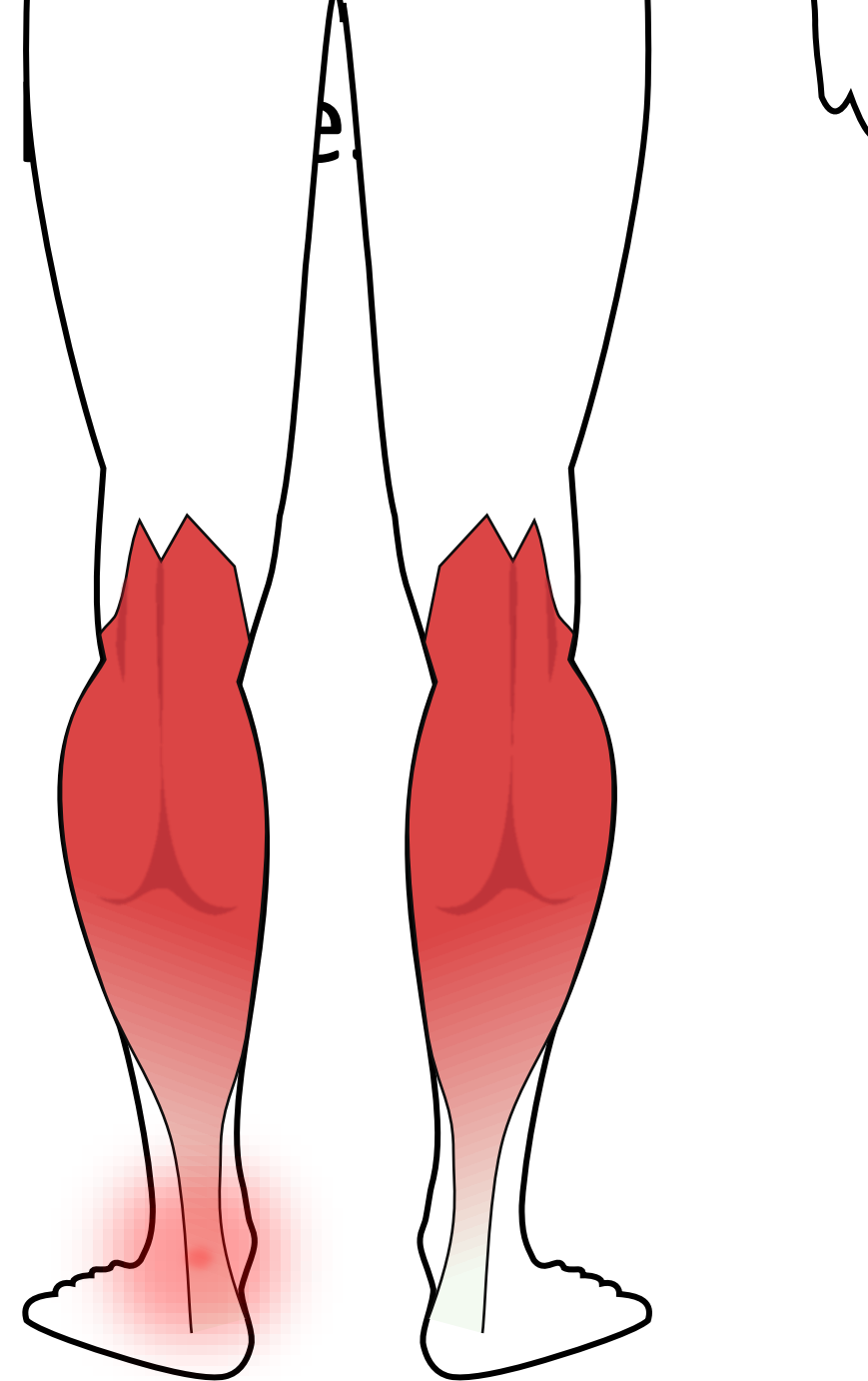
- Sprains and Strains are different
- but treated the same
- Minor injuries may only result in temporary mild discomfort
- More serious injuries may be disabling and may even need surgery



Muscle, Joint and Bone

Sprains and Strains

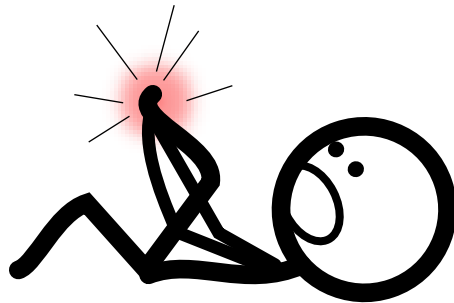
- **Prevention**
 - Avoid over twisting joints
 - Avoid over lifting



Muscle, Joint and Bone Injuries

Sprains and Strains

- **First-Aid**
 - Assume that any joint injury may also include a fracture
 - Take weight off the injured joint



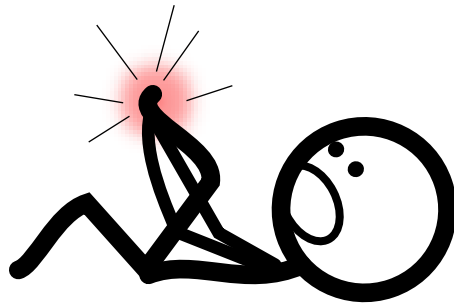
Muscle, Joint and Bone Injuries

Sprains and Strains

- **First-Aid**

- **RICE:**

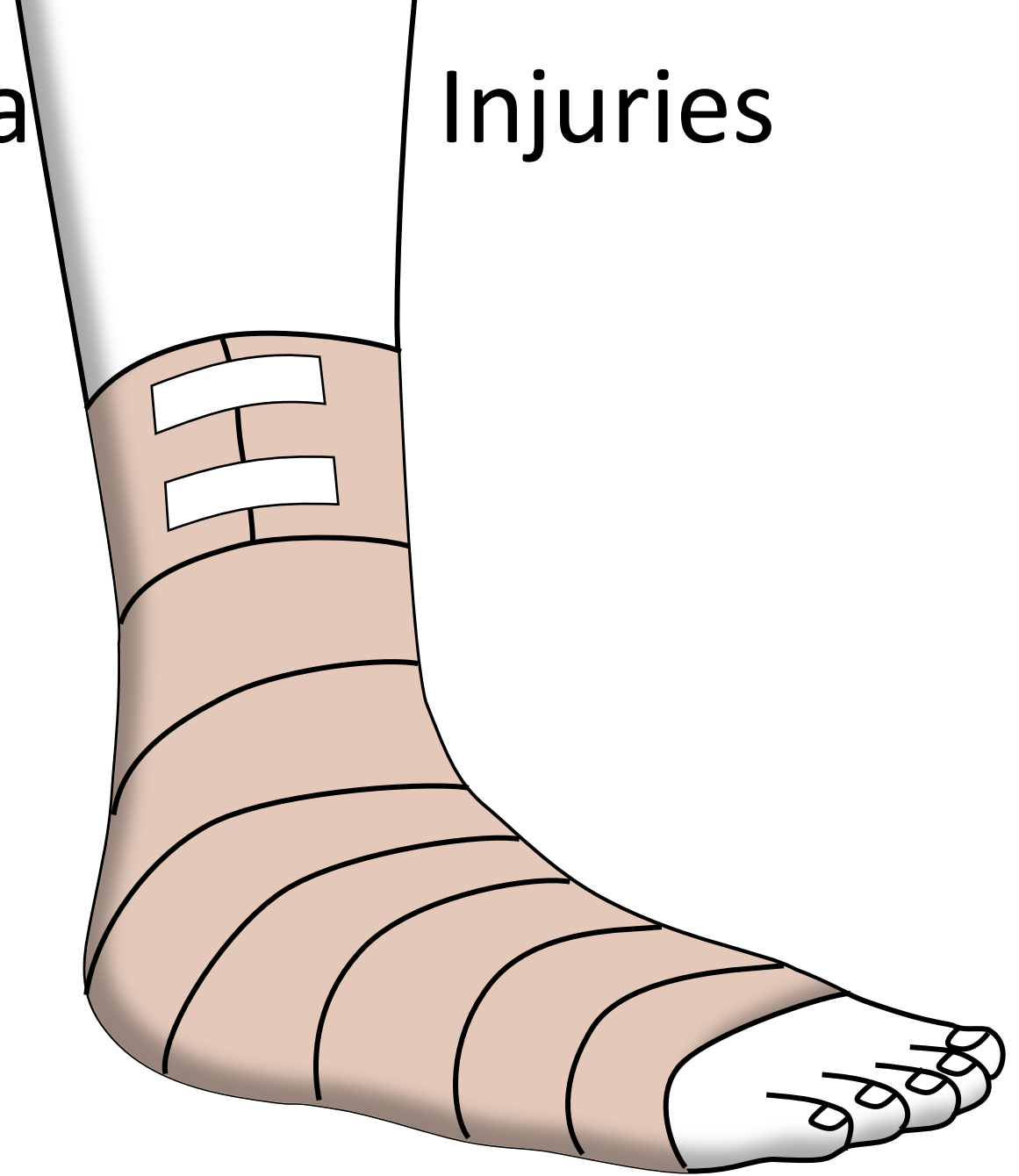
R	Rest	Stop or minimize use of joint
I	Ice	Use ice 20 minutes and repeat throughout day
C	Compression	Elastic bandage to reduce swelling
E	Elevation	Elevate injured area above level of heart if possible



Muscle, Joint and Injuries

Wrapping the Ankle

Demo or [Video](#)

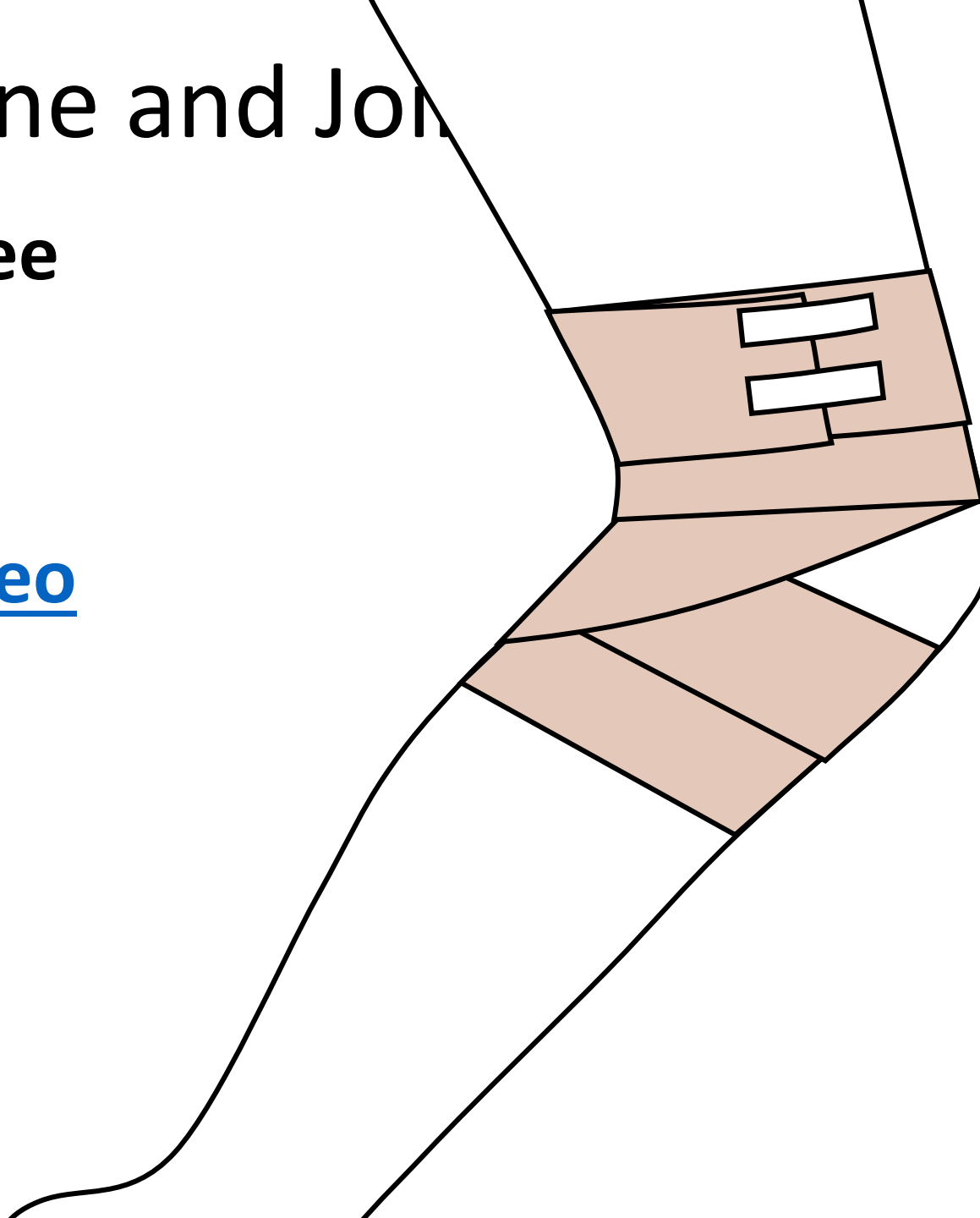




Bone and Joint

Wrapping the Knee

Demo or [Video](#)



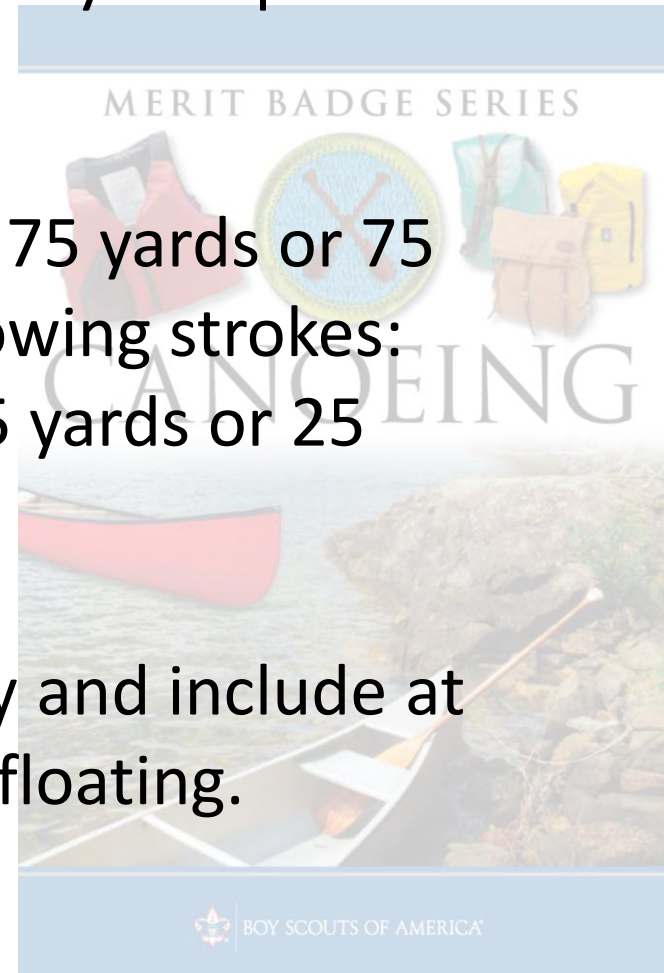
Canoeing Safety

Requirement 2 – Swim Test

Before doing the following requirements [3-13], successfully complete the BSA swimmer test.

Jump feet first into water over your head in depth, swim 75 yards or 75 meters in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards or 25 meters using an easy resting backstroke.

The 100 yards or 100 meters must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating.



Canoeing Safety

Requirement 5a – Life Jacket

Discuss with your counselor the characteristics of life jackets most appropriate for canoeing and tell why a life jacket must always be worn while paddling.



Canoeing Safety

Life Jacket - Personal Flotation Devices (PFD)

- PFD needs to we warn anytime you are on the water with a canoe



Type III

Source: [westmarine.com](https://www.westmarine.com)

Canoeing Safety

Life Jacket - Personal Flotation Devices (PFD)

- There are several types of PFDs



Type I

Source: kentsafetyproducts.com



Type II

Source: mustangsuvival.com



Type III

Source: westmarine.com



Type IV

Source: kentsafetyproducts.com

Canoeing Safety

Life Jacket - Personal Flotation Devices (PFD)

- Of these, the Type III is most comfortable for canoe use
 - Buckle or zipper in front
 - Allows for comfortable use of paddle



Type III

Source: [westmarine.com](https://www.westmarine.com)



Type III

Source: [nrs.com](https://www.nrs.com)



Type III

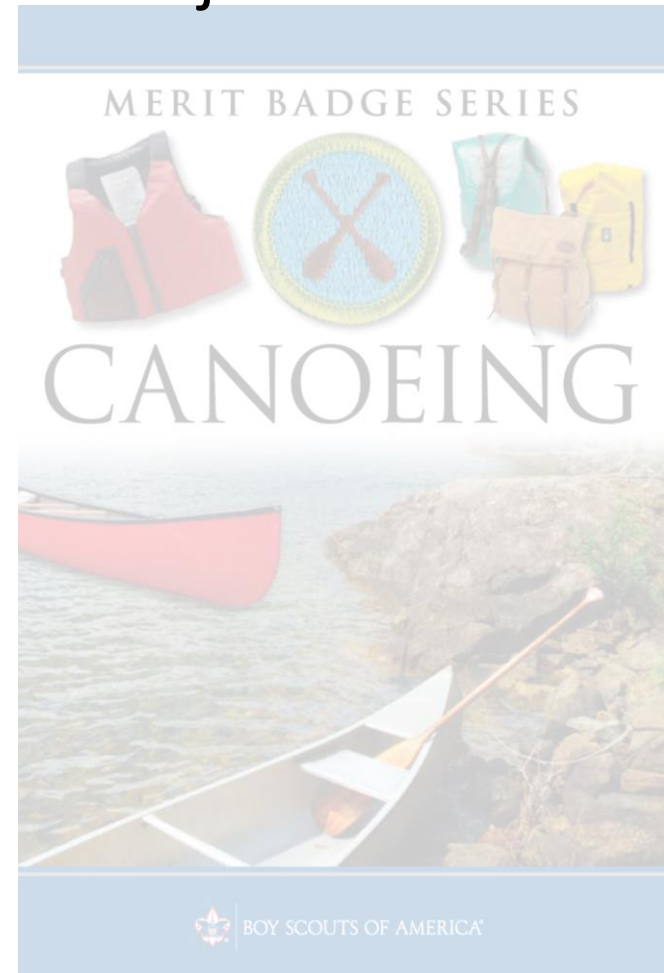
Source: [nrs.com](https://www.nrs.com)

Canoeing Safety

Requirement 5b – Life Jacket Demo

Demonstrate how to select and properly fit the correct size life jacket.

Test Fit of PDF



Canoeing Safety

Life Jacket - Personal Flotation Device Fit

- To be effective, a PFD must be fitted and worn properly
- Make sure it fits snugly
 - Side straps are adjusted to fit snugly
 - Ties are appropriately tied
 - Zippers are zipped
 - Buckles are fastened

Canoeing Safety

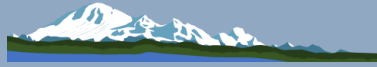
Life Jacket - Personal Flotation Device Fit

- Check the fit
 - **Shoulder Strap Test** with a Partner
 - Stand behind partner and firmly pull up both shoulder straps
 - If you can pull the shoulder straps up to ear level
 - Readjust PFD or
 - Try different style or size

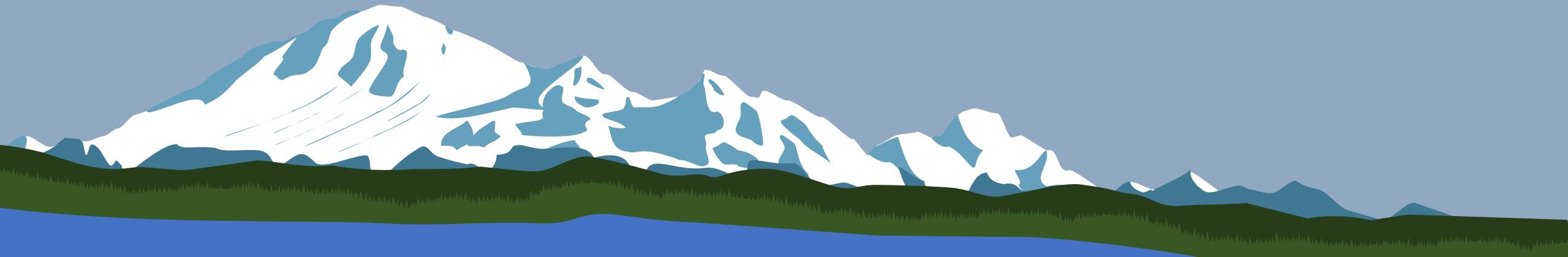
Canoeing Safety

Life Jacket - Personal Flotation Device Fit

- Check the fit
 - **In the Water Test**
 - Relaxing body and tilt your head back
 - Properly fitted/sized PFD will keep your chin well above water
 - If chin below water,
Readjust PFD or try one with a higher Buoyancy Rating



Types of Canoeing

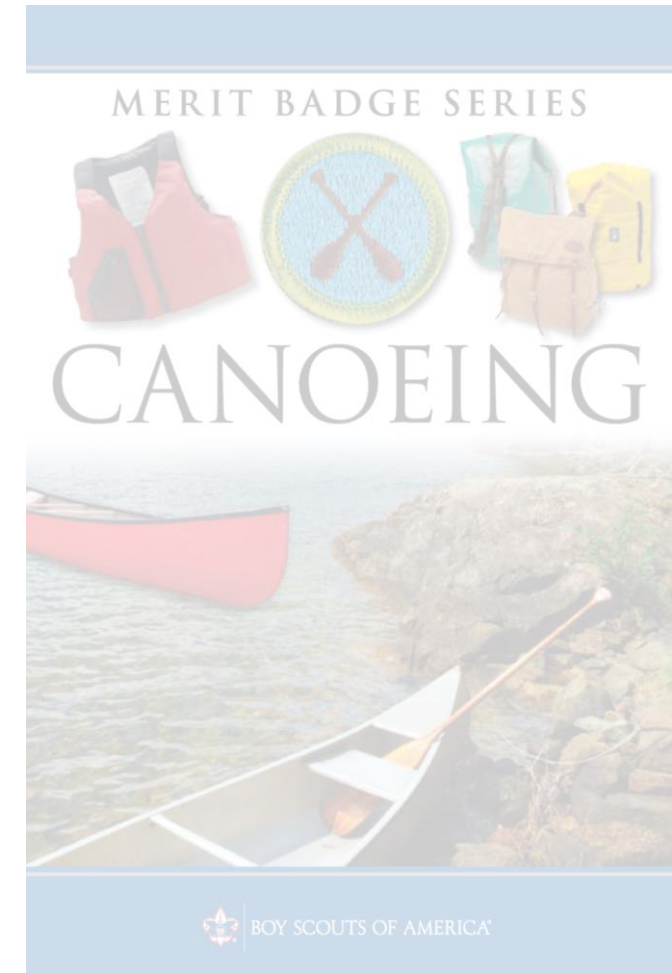


Types of Canoeing

Requirement 13 – Types of Canoeing

Discuss the following types of canoeing:

- a. Olympic canoe sprint
- b. Flatwater and river touring
- c. Outrigger
- d. Marathon
- e. Freestyle
- f. Whitewater
- g. Canoe poling



Types of Canoeing

Types of Canoeing – Olympic Canoe Sprint

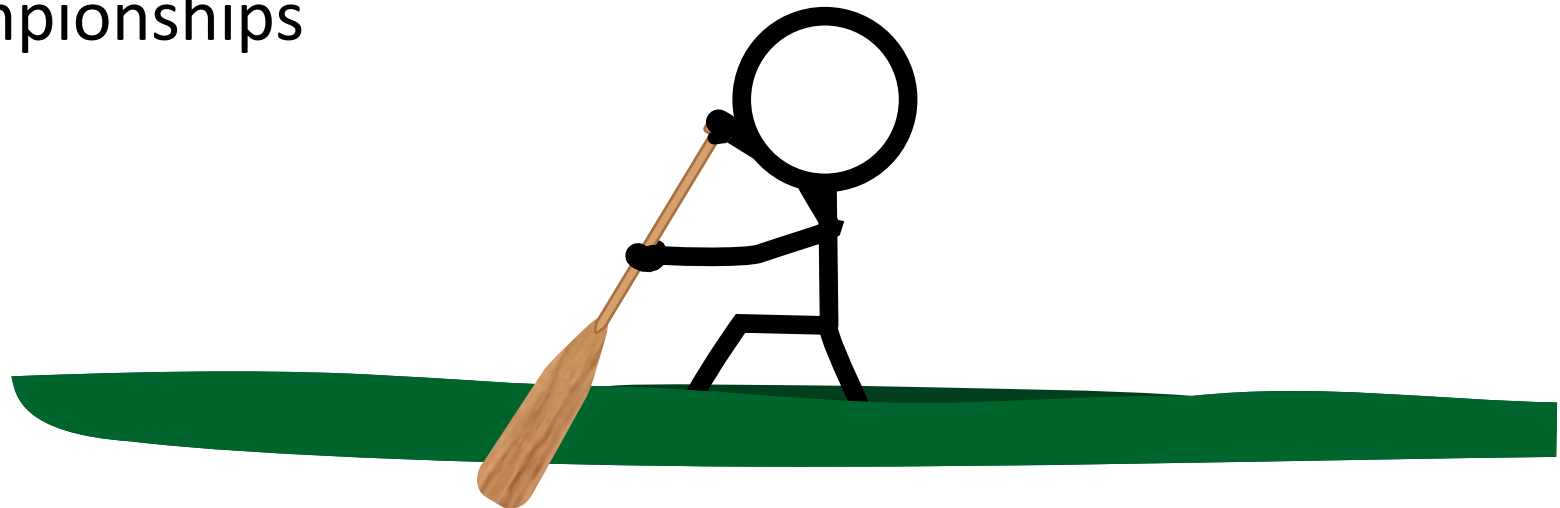
- Started as an exhibition sport in the 1924 Olympics in Paris
- Became official medaling sport in 1936 Olympics in Berlin
- Currently - Olympic Sprint Canoe races are
 - Straight 500 meters on calm water
 - Straight 1,000 meters on calm water



Types of Canoeing

Types of Canoeing – Olympic Canoe Sprint

- Annual events include
 - U.S. National Team Trials
 - U.S. National Championships
- Youths ages 15 to 18 can compete in
 - Junior National Championships
 - World National Championships



Types of Canoeing

Types of Canoeing – Olympic Canoe Sprint

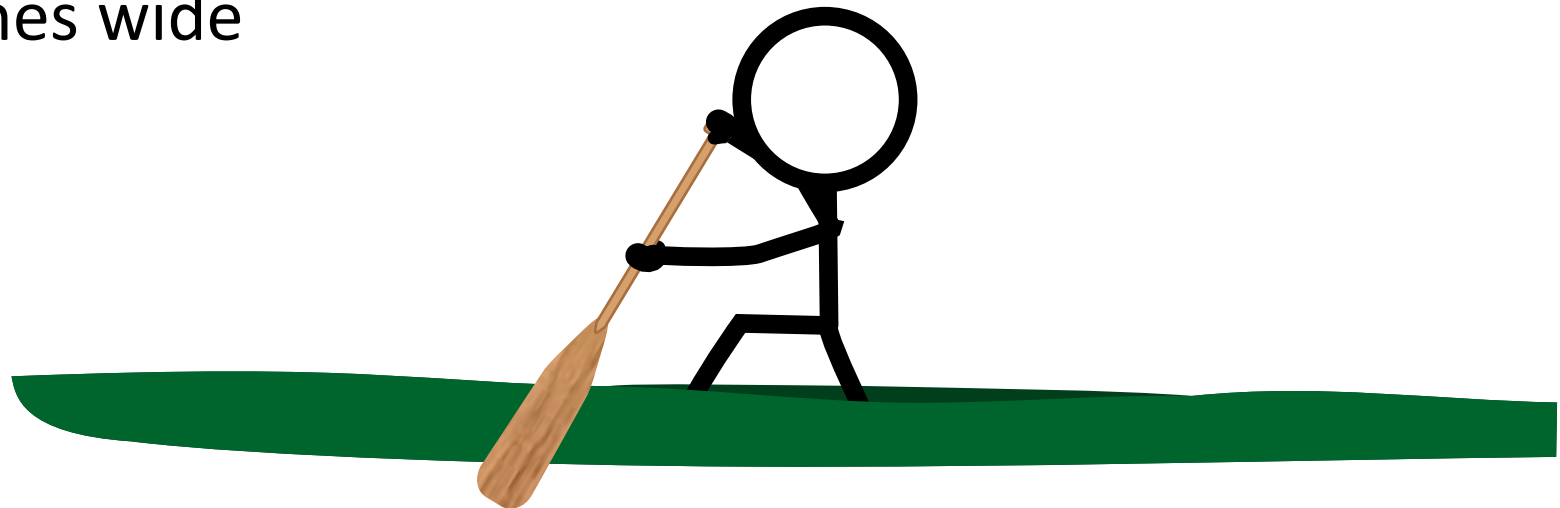
- Olympic canoe sprint use High-Kneeling Stance
 - Kneel on one knee on a platform in the boat
 - Extend the other leg in front of them



Types of Canoeing

Types of Canoeing – Olympic Canoe Sprint

- Olympic sprint canoes are
 - Long
 - Narrow
 - Diamond-shape
 - Tipsy because of narrow, high center of gravity design
- **C-1 Solo Canoe** is about
 - 17 feet long x 30 inches wide
 - Weighs 35 pounds
- **C-2 Tandem Canoe** is
 - 21 feet long
 - Weighs 44 pounds



Types of Canoeing

Types of Canoeing – Outrigger

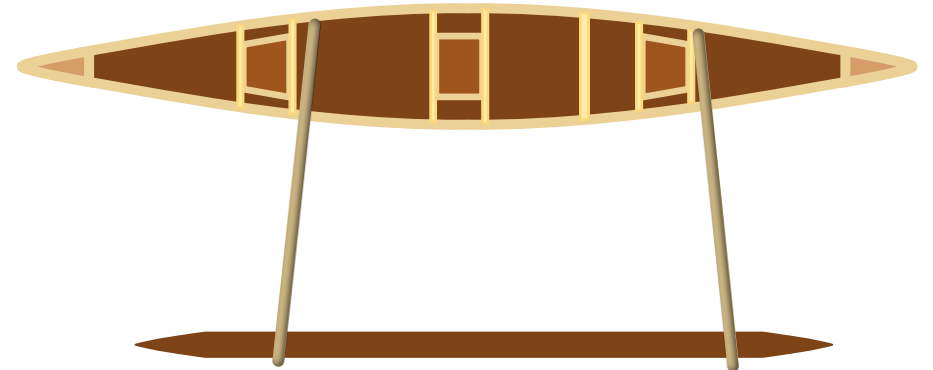
- Used in Pacific Islands for thousands of years
 - Originally carved from koa wood native to Hawaiian Islands



Types of Canoeing

Types of Canoeing – Outrigger

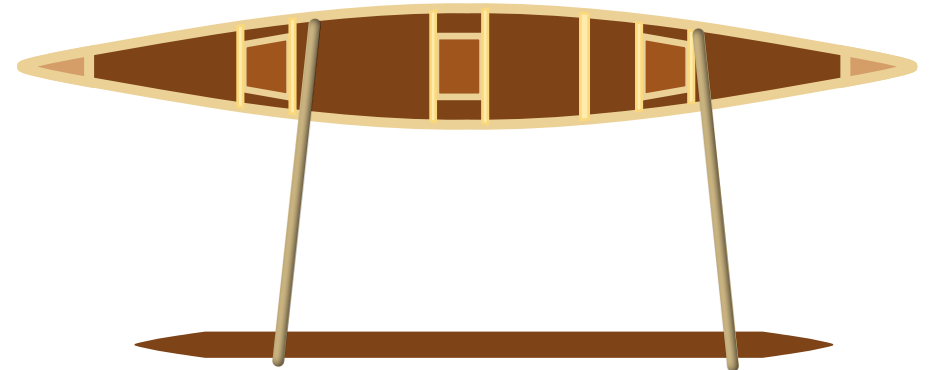
- Typically
 - 45 feet long x 18 inches wide
 - Can carry six people
 - Rounded hull
 - Outrigger extends 6 feet from the left side to steady the craft
- Modern fiberglass competition boats weigh a standard 400 pounds



Types of Canoeing

Types of Canoeing – Outrigger

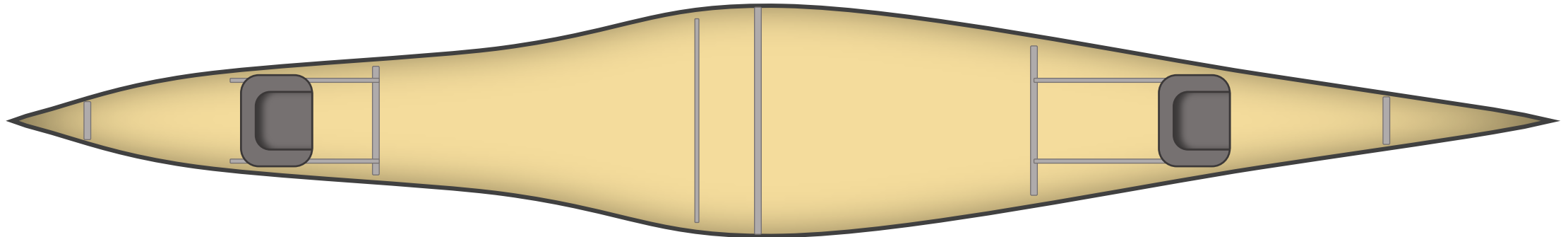
- Racing occurs
 - Marathons or sprints
 - Sprint is 500 to 3,000 meters
 - Marathon is 5 to 30 kilometers (3 to 18.6 miles)
 - Solo vs six-member team
- World-class teams can paddle at
 - One stroke per second
 - Average 10 miles per hour



Types of Canoeing

Types of Canoeing – Marathon

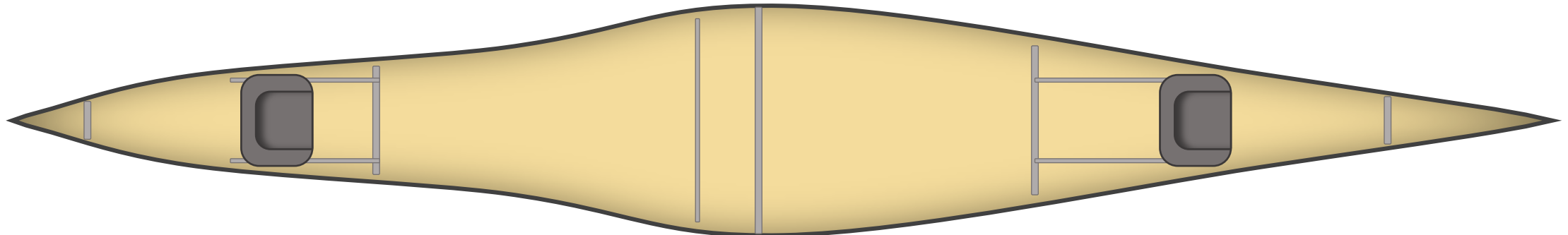
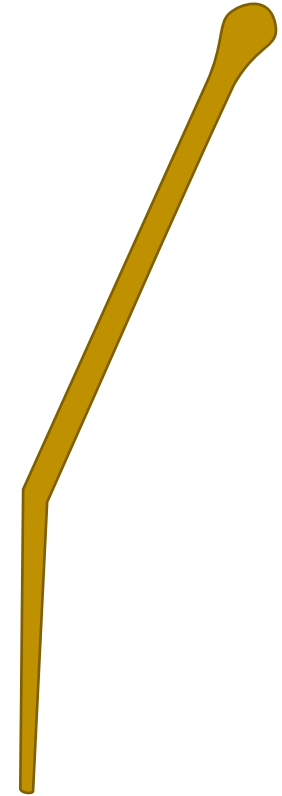
- Average distance is greater than 10 miles
 - Range from 5-100 miles
- Races held around the world



Types of Canoeing

Types of Canoeing – Marathon

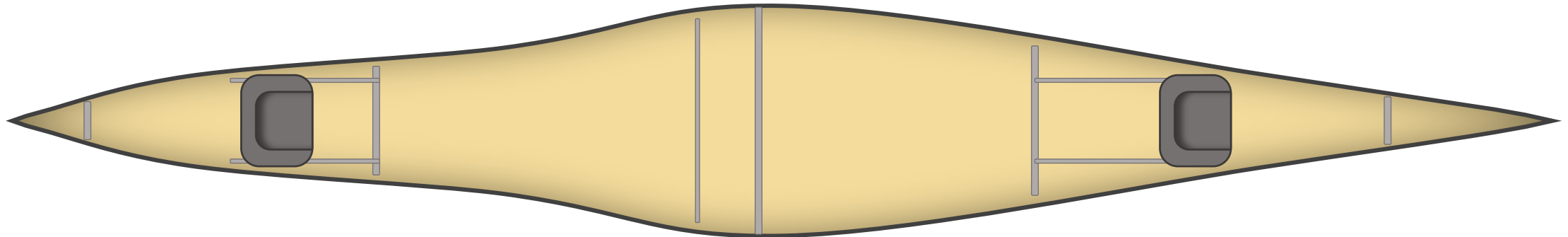
- Technique
 - Use bent-shaft paddles
 - Sit-and-Switch Paddling
 - 55 to 75 strokes per minute
 - Paddlers switch sides every 8-12 strokes
 - Stern paddler gives commands (“Hut!”)
 - Allows paddlers to alternate muscles
 - Doesn’t require J-strokes



Types of Canoeing

Types of Canoeing – Marathon

- Most racers are recreational canoeist with recreational canoes
- Serious racers use Specialized Marathon Canoes
 - Long and narrow to slice through water with minimal resistance
 - Sometimes made from fancy materials like graphite
 - Solo canoes have a lot of tumblehome (opposite of flare)
 - This makes paddling from the middle of the canoe easier



Types of Canoeing

Types of Canoeing – FreeStyle

- Similar to Figure Skating – but on a canoe
 - Perform to Music – popular or classical
 - Program is short and choreographed



Types of Canoeing

Types of Canoeing – FreeStyle

- Judged on
 - Compulsory moves
 - Execution
 - Degree of difficulty
 - Showmanship
 - Choreography
- National Freestyle Championships include
 - Solo competitions for men and women
 - Couples' competition

Types of Canoeing

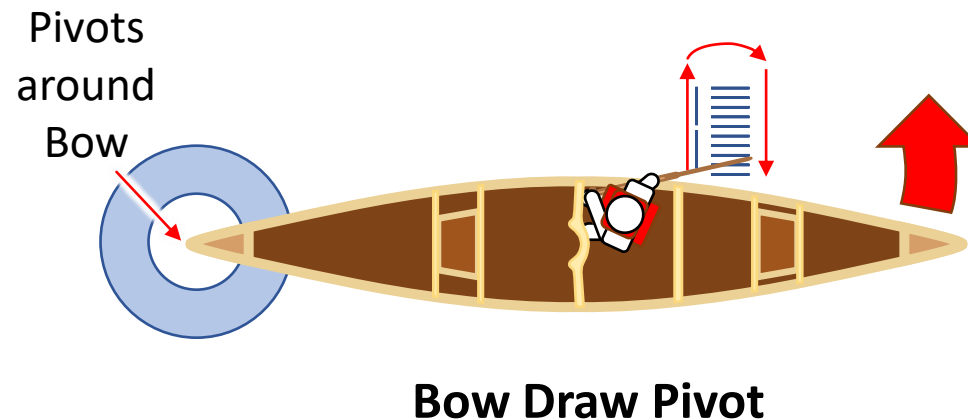
Types of Canoeing – FreeStyle

- Canoes are designed for
 - Freestyle maneuvers – involving a lot of turning
- Common canoe strokes are modified to fit freestyle moves
- Paddlers use kneeling position during competition

Types of Canoeing

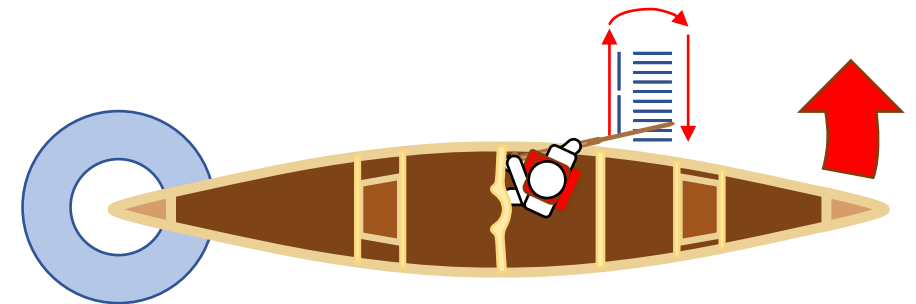
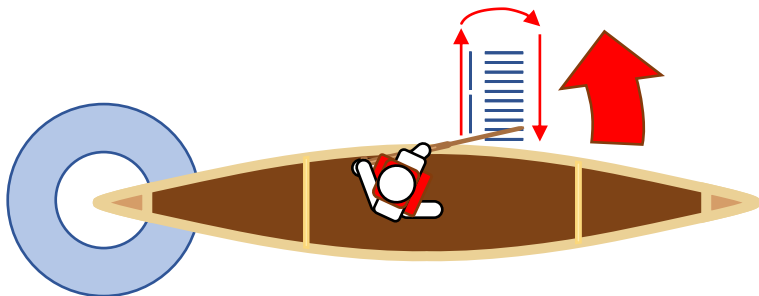
Types of Canoeing – FreeStyle vs Canadian Style

- Canadian Style has many similarities to Freestyle
 - Movement of canoe appears similar
 - FreeStyle paddlers move around a LOT in canoe
 - Canadian paddlers stay more or less stationary with canoe heeled



Types of Canoeing

	Freestyle	Canadian Style
Canoe	Short and narrow solo canoe	Tandem canoe with yoke or thwart in center
Paddling Station	High kneel or seated in center	Canoe stern front, low kneel behind center thwart
Pitch	Neutral and changes with maneuvers	Slight/moderate weight toward trailing end
Heel	Changes for side to side and to middle	Heeled to paddling side with minor adjustments
Movement	Moves forward and aft to lift ends	Stationary with small adjustments in heel + pitch
Paddle	Wide blade with long shaft	Long narrow blade with short shaft
Strokes	Forward catch, Braces and Static common	Continuous paddling with fewer static strokes
Cross Strokes	Cross strokes are common	Cross strokes are rare
Turns	Trailing end skidding over surface of water	Carving turns with trailing stem engaged



Types of Canoeing

Types of Canoeing – Whitewater

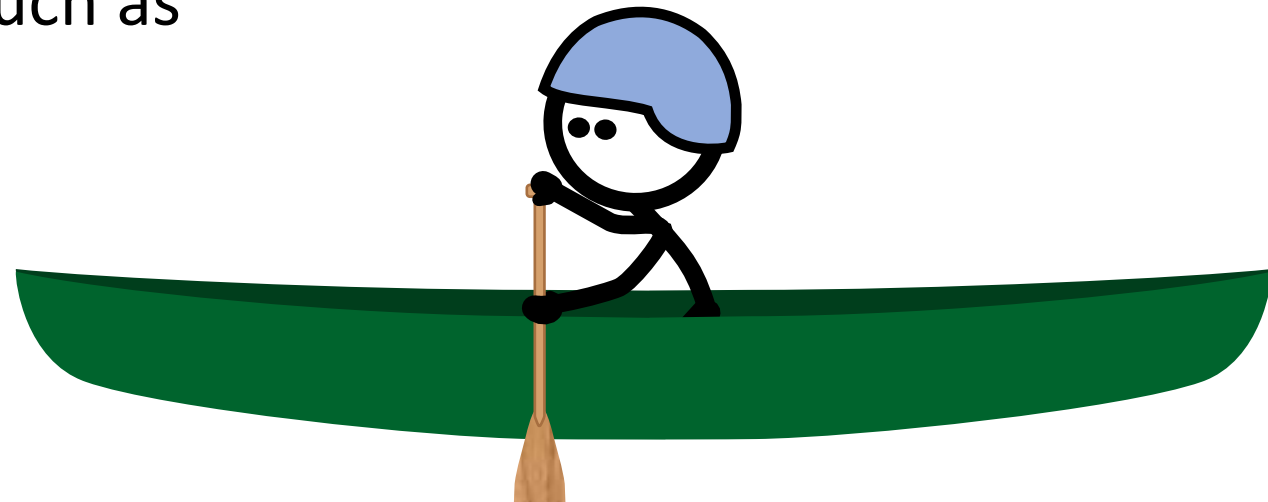
- Done on adequate water flowing in a river, stream, or creek
- Can be tremendously fun and rewarding
- Can be very dangerous and deadly



Types of Canoeing

Types of Canoeing – Whitewater

- Requires special training and experience
 - Sound stroke technique
 - Knowledge of how to use strokes at the right place and time
 - Must know how to read a river
 - What different kinds of waves mean
 - How waves affect the canoe
 - Able to recognize hazards such as
 - Undercut rocks
 - Submerged trees
 - Strainers
 - Ledges
 - Waterfalls



Types of Canoeing

Types of Canoeing – Whitewater

Scouts should attempt whitewater paddling only under the direct supervision of a **properly trained and council-approved whitewater specialist** who is a qualified supervisor as outlined in the Safety Afloat guidelines.

Class I or II river is adequate for most Scouting whitewater experiences. Only very experienced paddlers with proper rescue training, advanced technical skills, and adequate supervision should attempt Class III rivers.

Types of Canoeing

Types of Canoeing – Whitewater

- Specialized Canoes
 - Solo canoes can be as short as 10 feet
 - Tandem canoes range from 15-17 feet
 - Highly maneuverable while quite stable
 - Solo boats fitted with saddles for sitting
 - For more stable kneeling position
 - Most boats have flotation bags
 - Bags provide buoyancy and prevent water from filling up canoe
- Straightshaft paddle is generally preferred

Types of Canoeing

Types of Canoeing – Whitewater

- Several types of whitewater canoeing competitions
 - Whitewater slalom racing
 - Rivers or constructed whitewater courses
 - Maneuver through gates set up along the course
 - Two Olympic Whitewater Slalom medal events
 - Numerous national and international competitions
 - Rodeo
 - Perform moves while surfing a wave or spinning in a hole
 - Wild-Water Racing
 - 3-5-mile stretches of class III to class IV white water

Types of Canoeing

Types of Canoeing – Canoe Poling

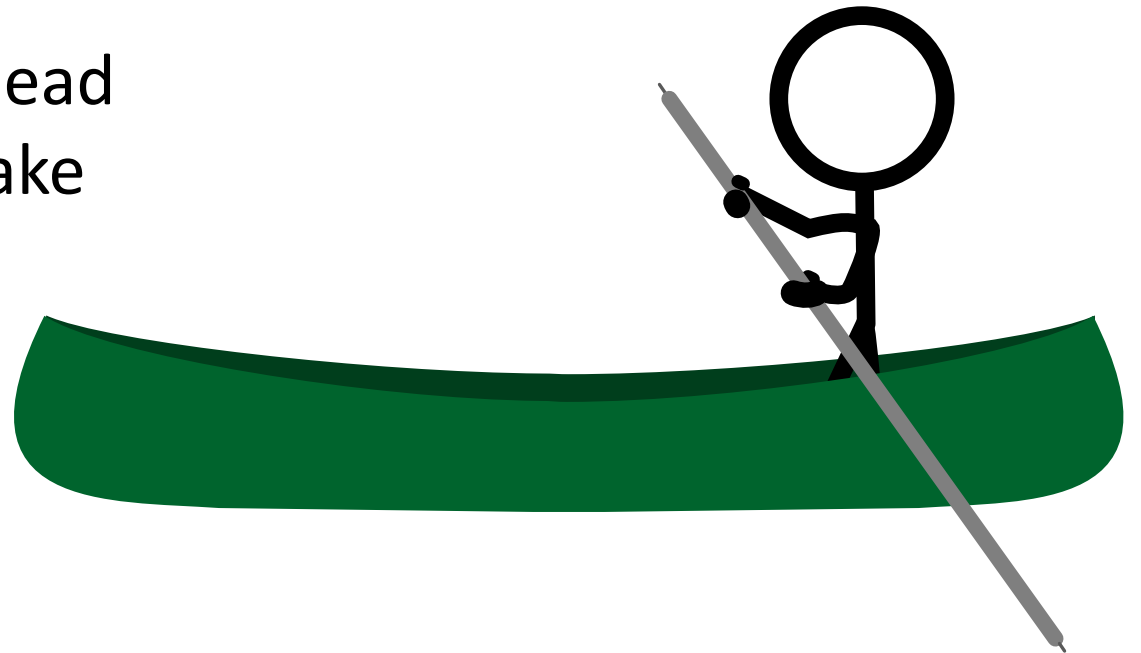
- Uses a pole to propel, slow and maneuver a canoe
- Generally done in a standing position in canoe
- Traditional method in some areas
- Better than paddling in weedy areas



Types of Canoeing

Types of Canoeing – Canoe Poling

- **Poling**
 - Use long pole to propel canoe upriver by pushing pole back
 - Micro-corrections used to steer/position canoe
- **Snubbing**
 - Tip of the pole is positioned ahead
 - Snub tip off river bottom to brake



Types of Canoeing

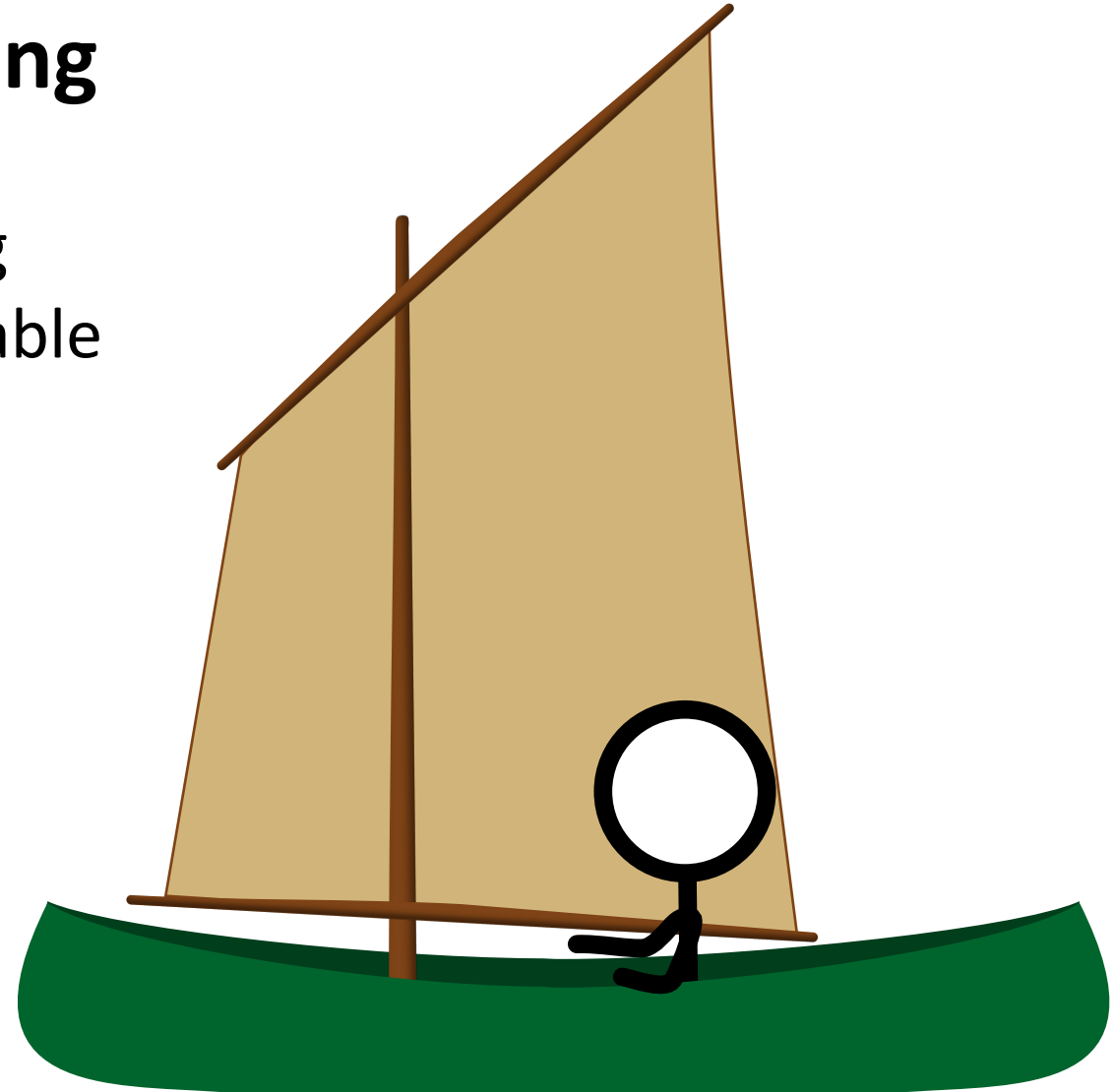
Types of Canoeing – Canoe Poling

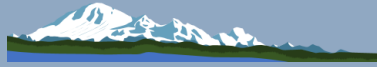
- A pole can be as simple as a long stick
- An idea pole is
 - 11-12 feet long
 - 1.5 inches in diameter
 - Can be Aluminum or
 - Wood should be
dense, straight, knot-free with parallel grain, strong, and flexible
 - A short 2-inch spike at ends will grab river bottoms with gravel beds

Types of Canoeing

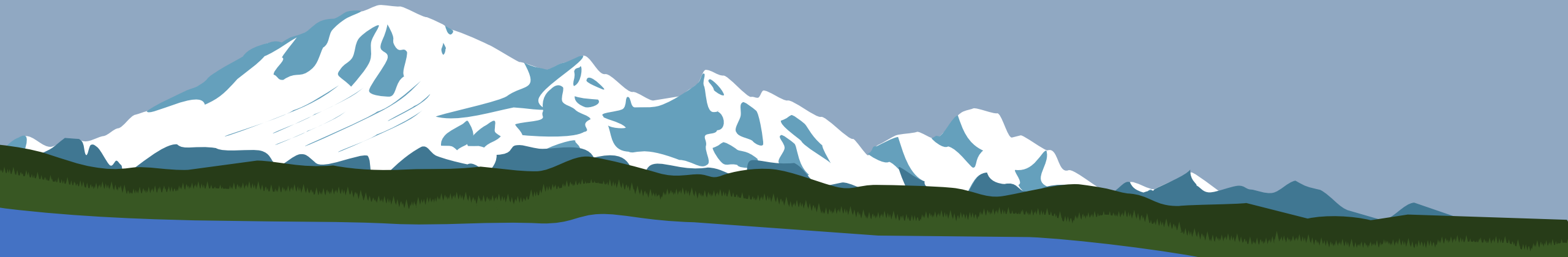
Types of Canoeing – Canoe Sailing

- Organized sport for over 100 years
- Canoes are generally 13-18.5 feet long
- Commercial kits and designs are available





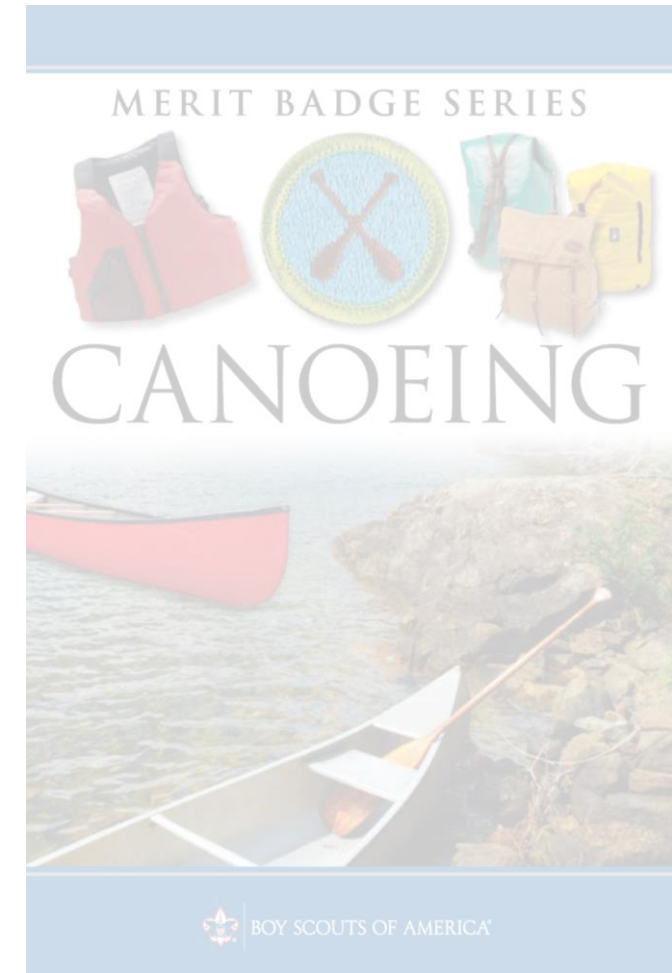
Canoeing Basics



Canoeing Basics

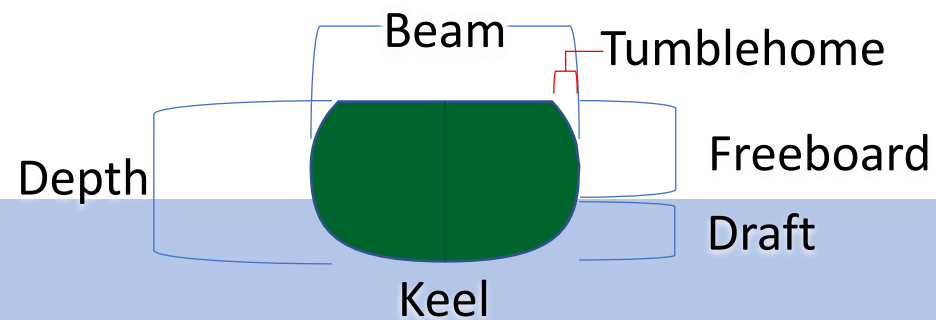
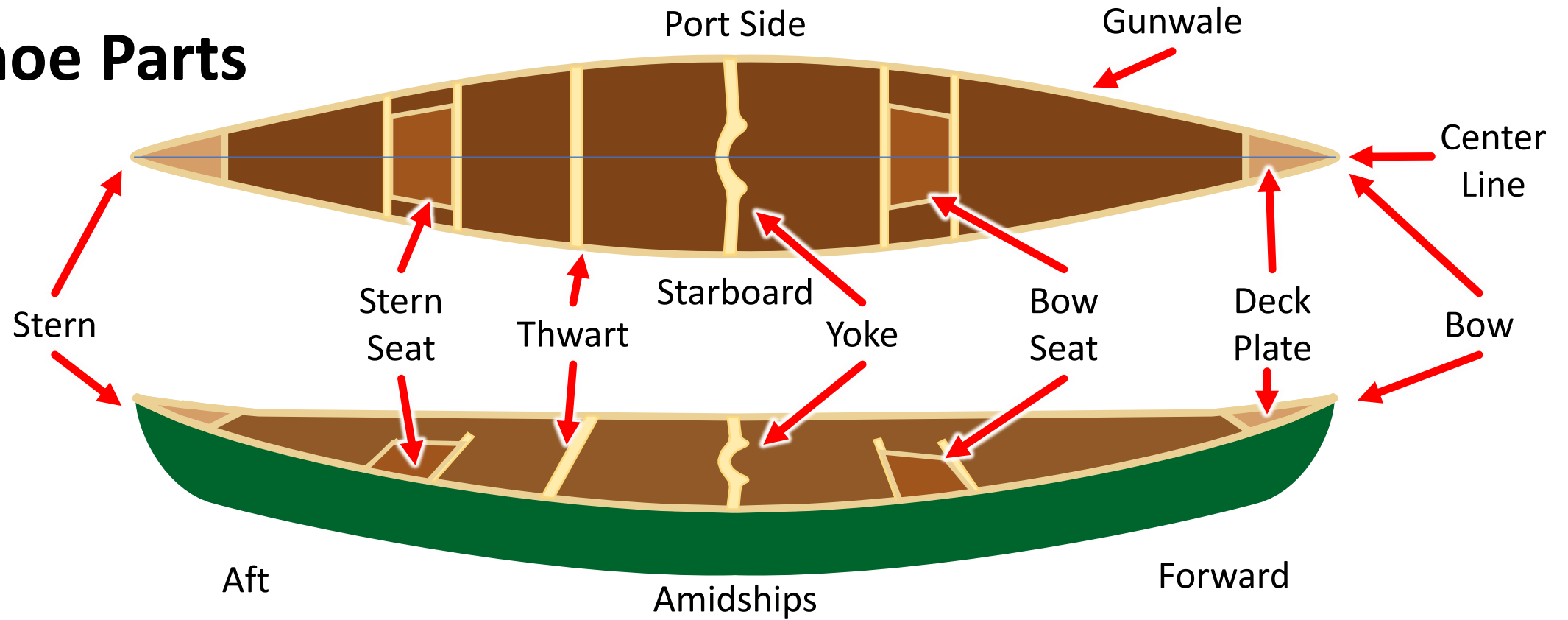
Requirement 3a – Canoe Parts

Name and point out the major parts of a canoe.



Canoeing Basics

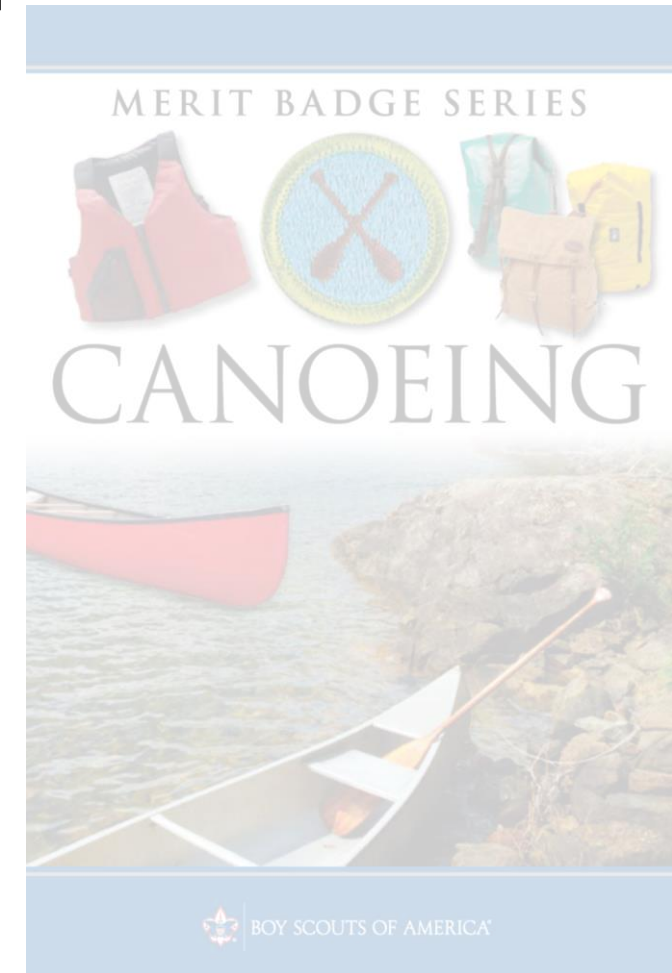
Canoe Parts



Canoeing Basics

Requirement 3b – Canoe Size

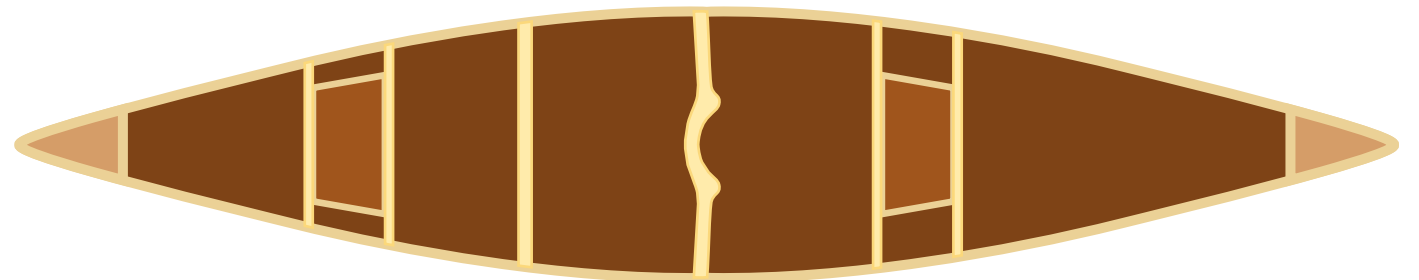
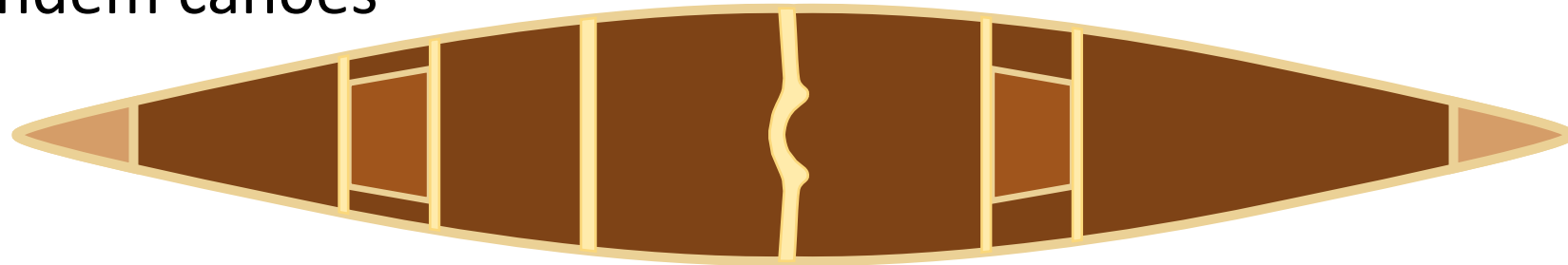
Describe how the length and shape of a canoe affect its performance.



Canoeing Basics

Canoe Size – Length

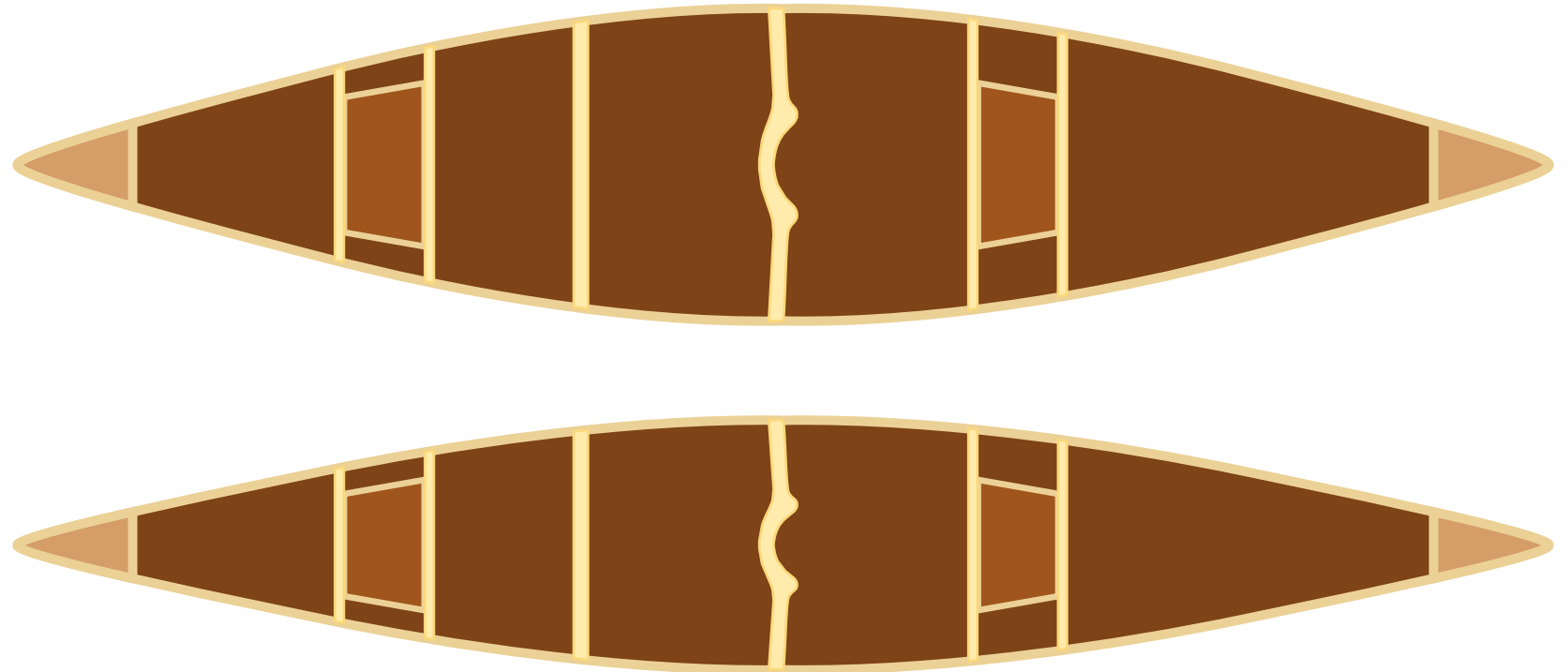
- Longer Canoe
 - Glides farther with each stroke
 - Carries more gear
 - 16-18' good for tandem canoes
- Shorter Canoe
 - Easier to turn
 - 14-16' good size for solo canoes



Canoeing Basics

Canoe Size – Width

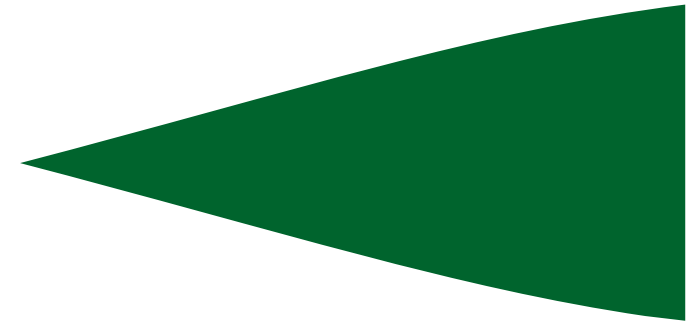
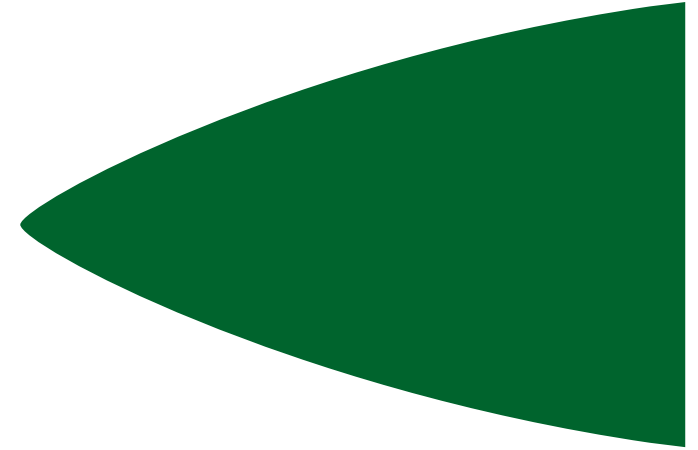
- Wider Canoes
 - Carries more gear
 - Most stable



Canoeing Basics

Canoe Size – Bow Width

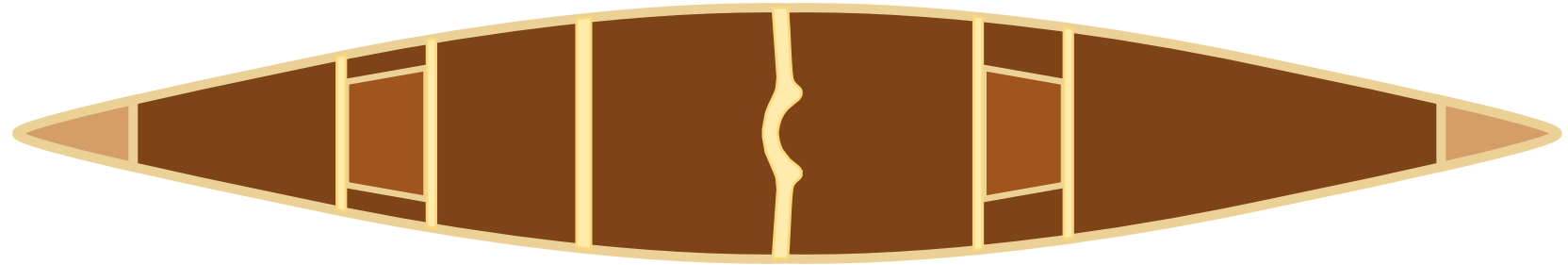
- **Wider Bow** (Blunt Entry)
 - More easily navigates waves and rapids
 - Deflects rocks
- **Narrow Bow** (Pointy Entry)
 - Cuts through water like a knife



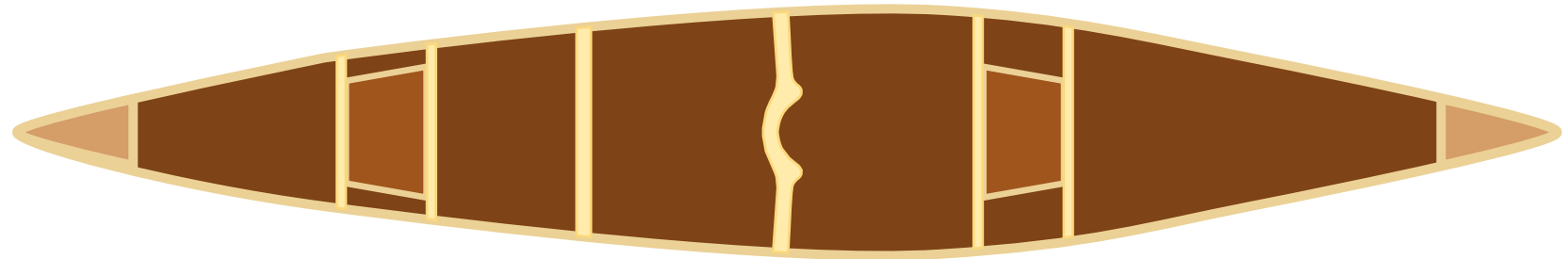
Canoeing Basics

Canoe Size – Symmetry

- **Symmetrical Canoe**
 - Bow and Stern look identical
 - Easier to maneuver backwards



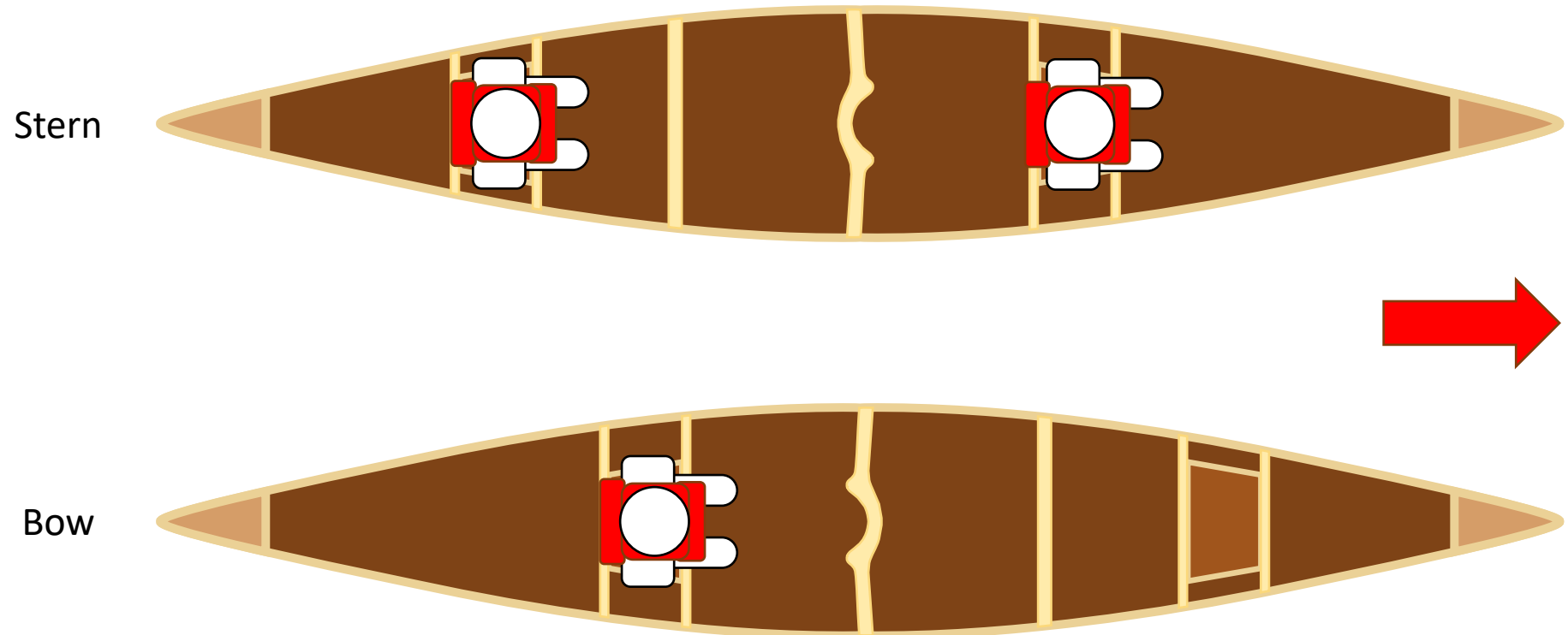
- **Asymmetrical Canoe**
 - The Slice through the water better
 - Increased speed



Canoeing Basics

Canoe Size – Symmetry

- **Symmetrical Canoe**
 - Symmetrical Canoes allow you to paddle backwards if canoeing solo



Canoeing Basics

Canoe Size – Depth

- **Taller Sides**
 - Carry more gear
 - Prevents waves to washing into canoe
 - More vulnerable to wind
- **Shorter Sides**
 - Better resistance to wind
 - More likely to take on water if windy or water is choppy



Canoeing Basics

Canoe Bow Shape

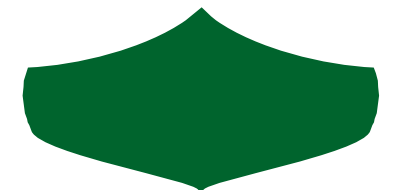
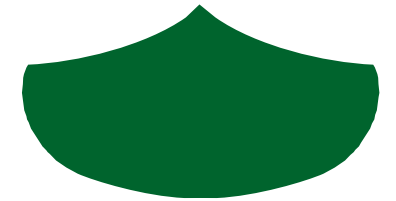
- **Plumb (Straight) Stem**
 - Tracks better
 - Goes faster
- **Raked (Slanted) Stem**
 - Prevents waves from splashing in canoe
- **Recurved Stem**
 - Classic shape



Canoeing Basics

Canoe Hull Shape

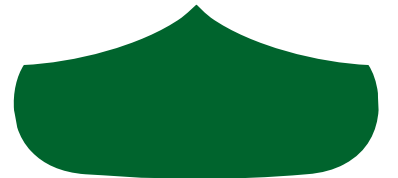
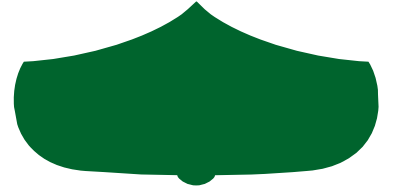
- **Flat Bottom**
 - Easier to turn
 - Better initial stability (not tipsy)
- **Rounded Bottom**
 - Easier to lean
 - Good secondary stability (better leanability)
- **V-Shaped**
 - Compromise between flat and rounded



Canoeing Basics

Canoe Keel

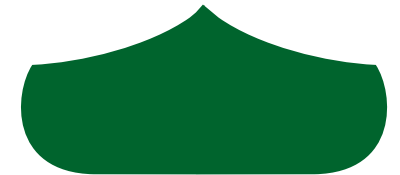
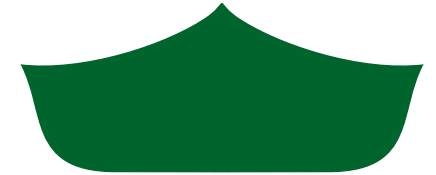
- **Keel**
 - Add Forward/Aft rigidity
 - Limits “Oil Canning” (flex)
 - Helps track a little (go straight)
 - May add some protection to certain canoes (canvas)
 - Catches on obstacles
 - Lines up canoe to small extent in current
- **No Keel**
 - Easier to clear obstacles
 - Easier to go perpendicular to current
 - Preferred for River Canoes



Canoeing Basics

Canoe Side Shape

- **Flared Sides**
 - Deflect waves better
 - Use in whitewater canoes
- **Tumblehome**
 - Easier to paddle efficiently



Canoeing Basics

Canoe Rocker

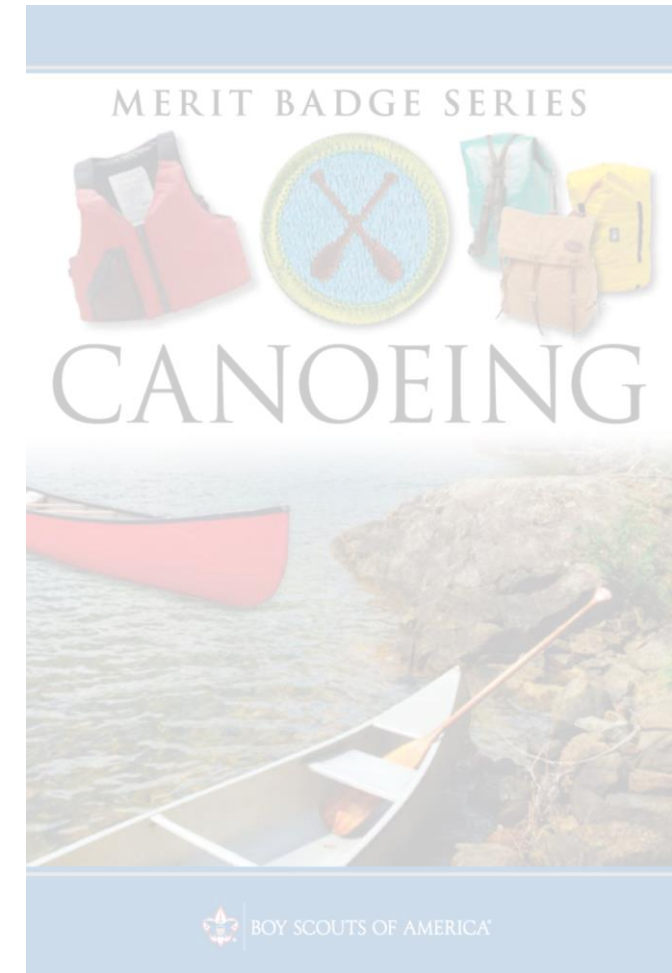
- **Lots of Rocker**
 - Whitewater
 - Easy to turn
 - Poor tracking
- **Minimal Rocker**
 - Flatwater
 - Great tracking
 - Turns poorly



Canoeing Basics

Requirement 3c – Canoe Material

Discuss the advantages and disadvantages of the different materials used to make canoes.



Canoeing Basics

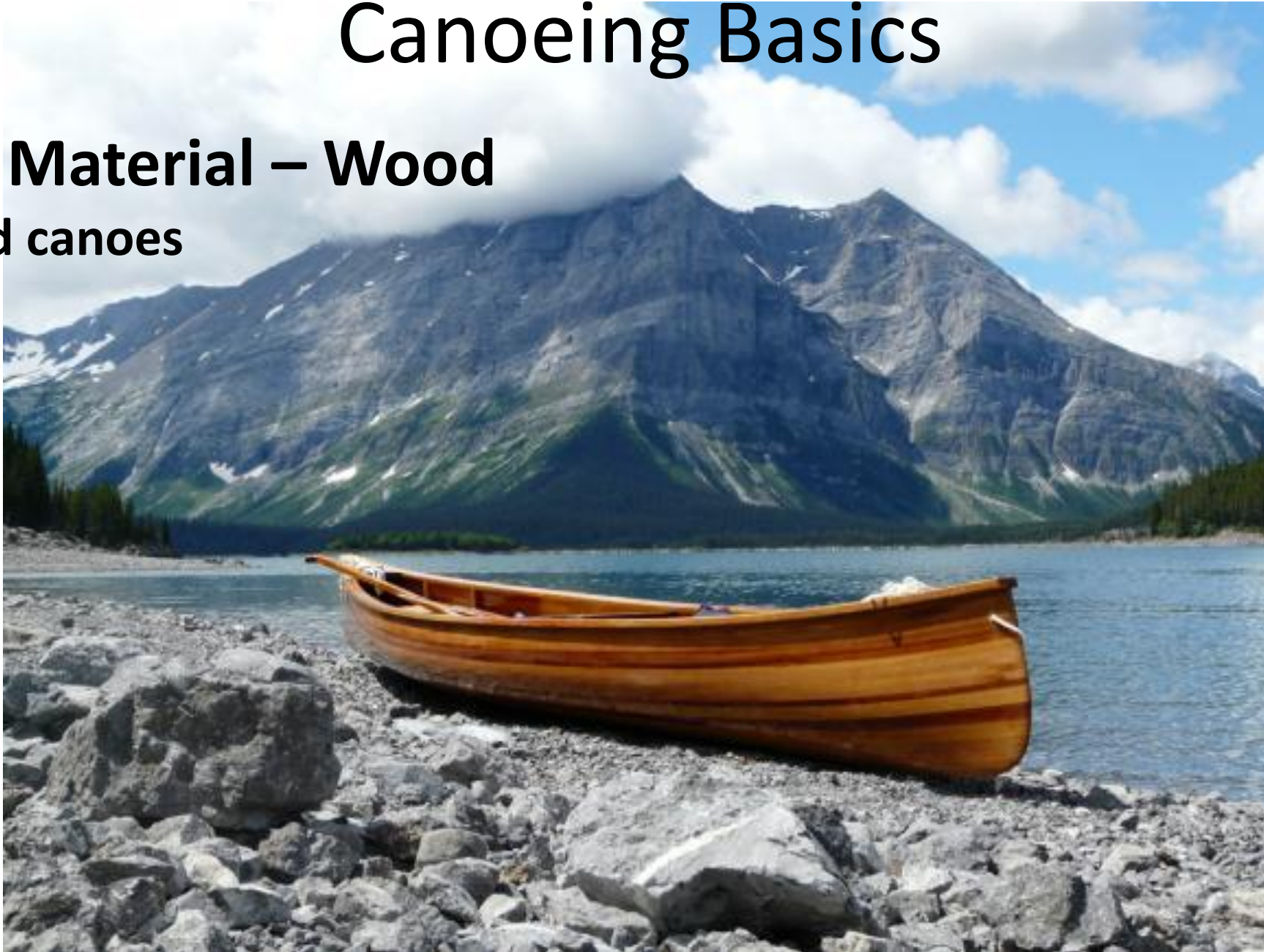
Canoe Material

- Canoes can be made from several materials
 - Wood
 - Wood-canvas
 - Aluminum canoes
 - Fiberglass
 - Kevlar
 - Polyethylene
 - Laminates

Canoeing Basics

Canoe Material – Wood

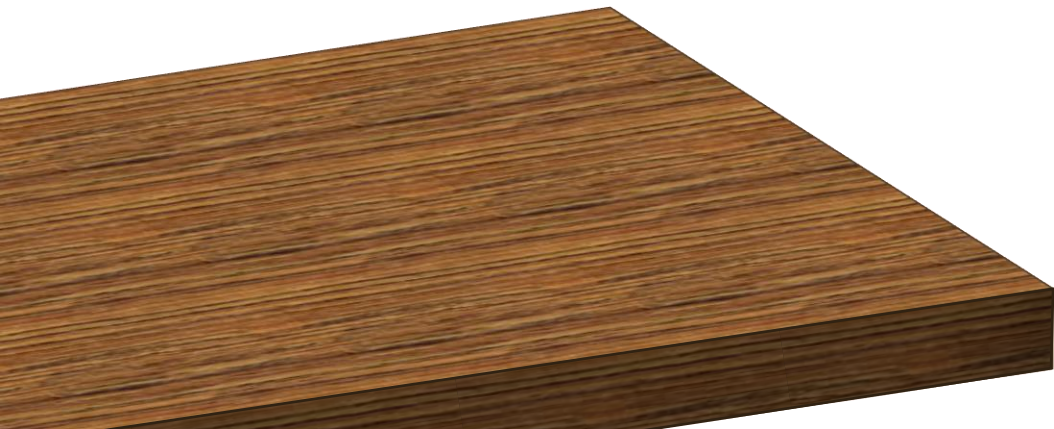
- Wood canoes



Canoeing Basics

Canoe Material – Wood

- **Wood Canoes**
 - Can be works of art by skilled craftsmen
 - Made from a variety of wood
 - Cedar
 - Birch
 - Ash
 - Can be lightweight – depending on wood used



Canoeing Basics

Canoe Material – Wood

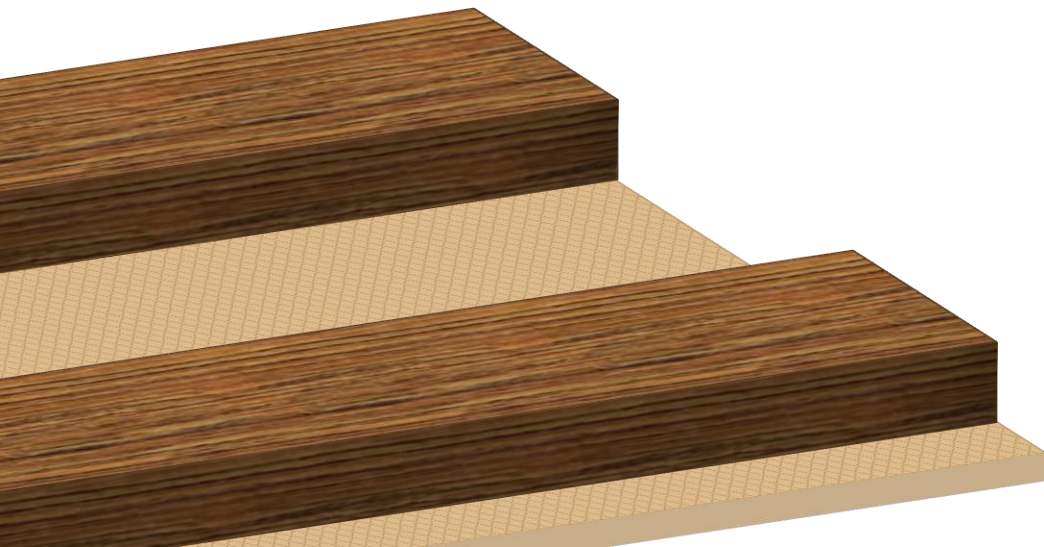
- **Wood Canoes**
 - Some use a fiberglass skin or coat



Canoeing Basics

Canoe Material – Wood

- **Wood-Canvas Canoes**
 - Uses a wooden frame that is covered with treated canvas
 - Boats are easy to repair
 - Require a lot of care and maintenance, including careful storage



Canoeing Basics

Canoe Material – Aluminum

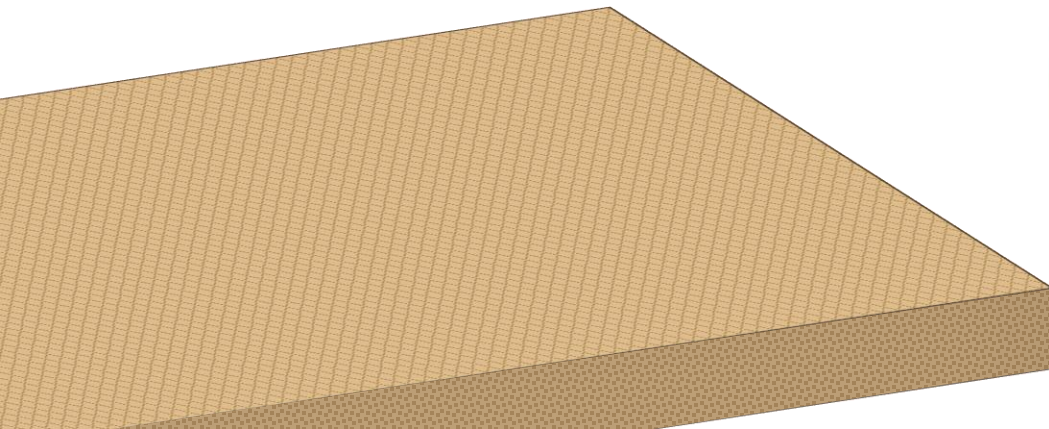
- **Aluminum Canoes**
 - Durable and relatively inexpensive
 - commonly used at many summer camps
 - Withstands hard use
 - Get hung up on rocks in shallow passages
 - Noisy on the water
 - Only canoes that can be stored outdoors for long periods without suffering damage from weather or ultraviolet light



Canoeing Basics

Canoe Material – Composite

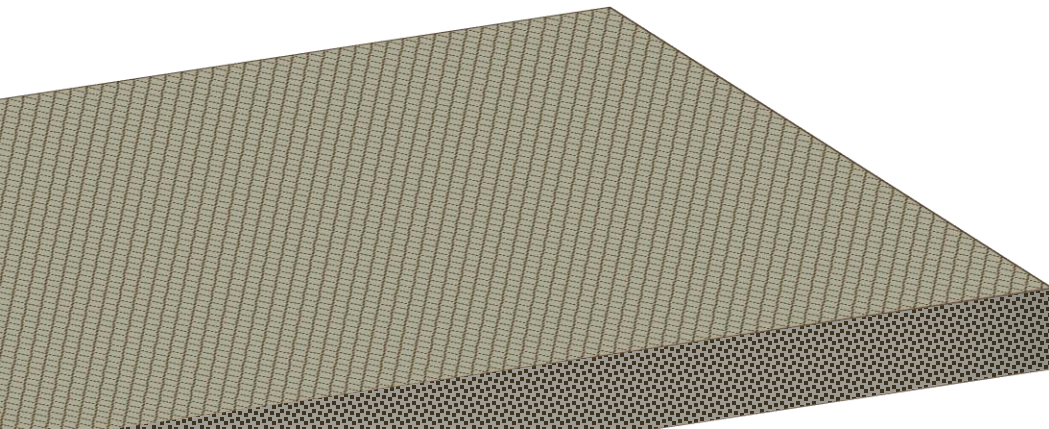
- **Fiberglass Canoes**
 - Sturdy
 - Glide over rocks easily
 - Vary widely in weight, quality, and price
 - Fiberglass can be formed into many different hull shapes
 - Many different designs based on canoeing activity
 - Fiberglass canoes are easy to repair



Canoeing Basics

Canoe Material – Composite

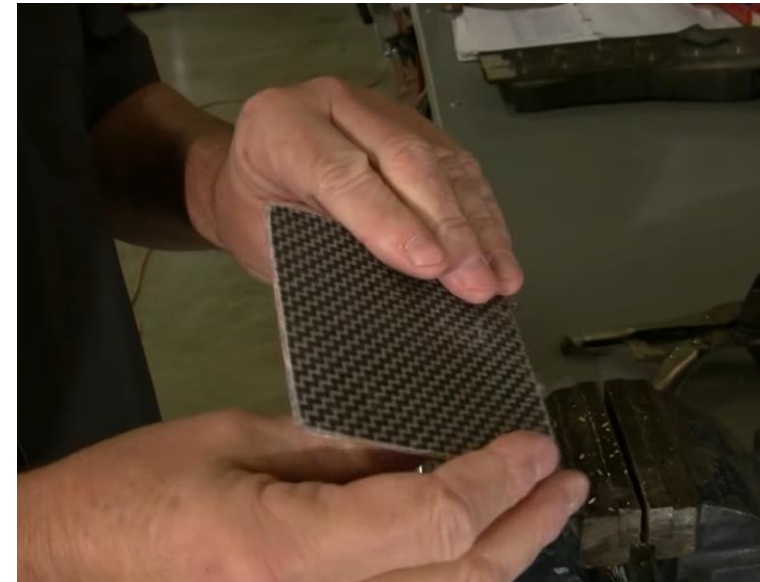
- **Kevlar (Aramid) Canoes**
 - Similar to Fiberglass
 - Constructed from aramid ballistic fabric
 - Easy to repair
 - Allows for construction of ultralight canoes
 - Expensive
 - Often are finished with a low-maintenance resin gel coat



Canoeing Basics

Canoe Material – Composite

- **TuffStuff**
 - Composite made of basalt and Innegra fibers
 - Basalt fiber is made of melted basalt rock
 - Innegra is a fiber consisting mostly of polypropylene
 - Infused with high impact vinylester resin
 - Doesn't fracture/crack like fiberglass or Kevlar
 - Heavier than Kevlar
 - Compared to polyethylene
 - Comparable durability
 - Tuffstuff is MUCH more expensive
 - Expedition quality is almost as heavy poly

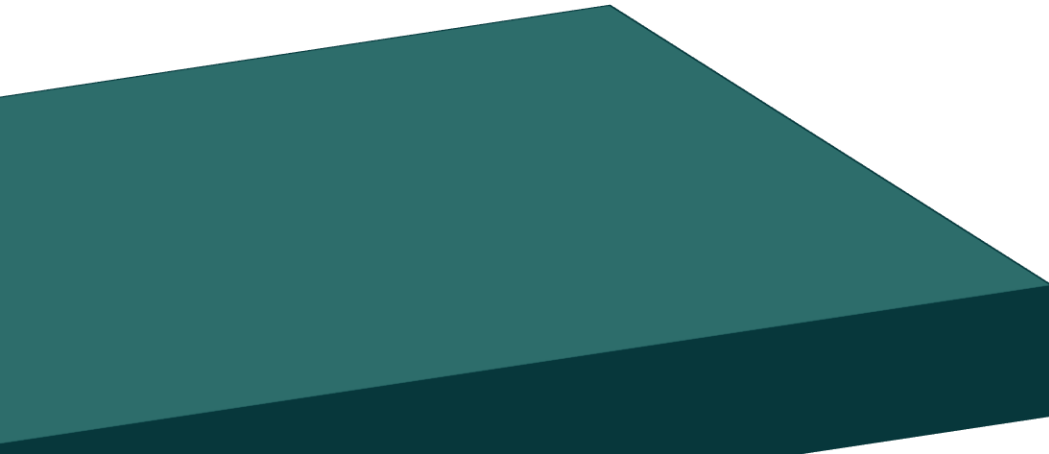


Canoeing Basics

Canoe Material – Plastic

- **Polyethylene Canoes**

- Tough, inexpensive, and reliable
 - Great value for what you pay
- Flexy
 - Return to their original shape when banged or dented
 - Some are reinforced with aluminum tubing to limit hull flex
- Can take a lot of abuse – often used for whitewater



Canoeing Basics

Canoe Material – Plastic

- **Polyethylene Canoes**
 - **LOT** heavier than other canoe materials
 - Tears or holes are difficult to repair
 - Repairable with heat and plastic welding
 - Warp in the sun
 - Must be supported properly when stored
 - Avoid storing in sun

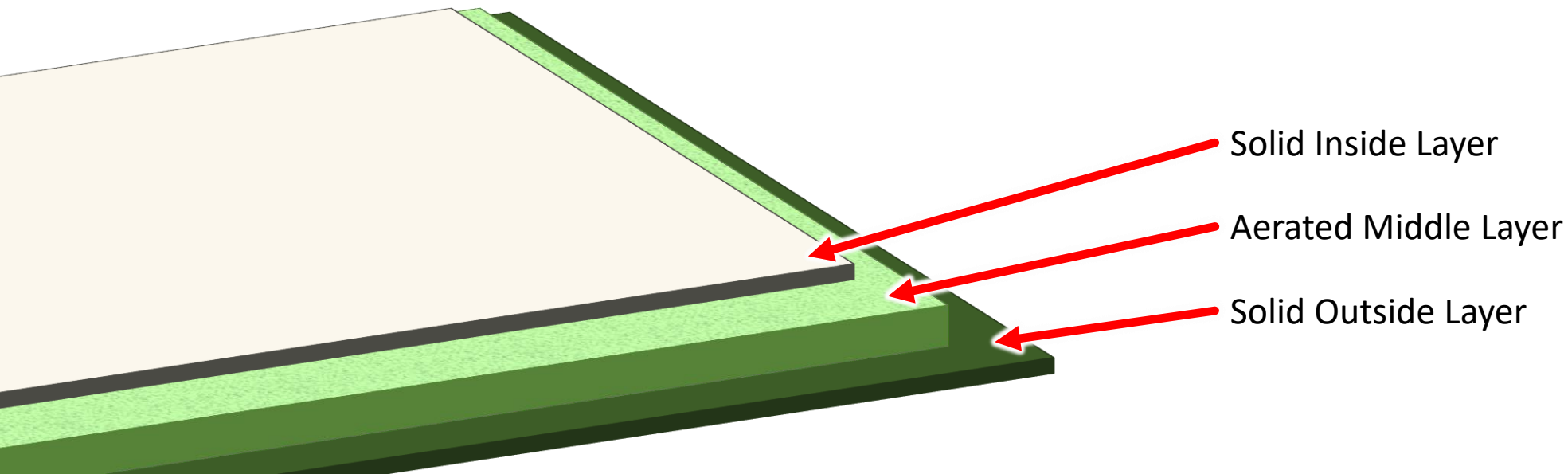


Storing unsupported in sun causes The Sag
This affects performance in water

Canoeing Basics

Canoe Material – Triple Layer Polyethylene

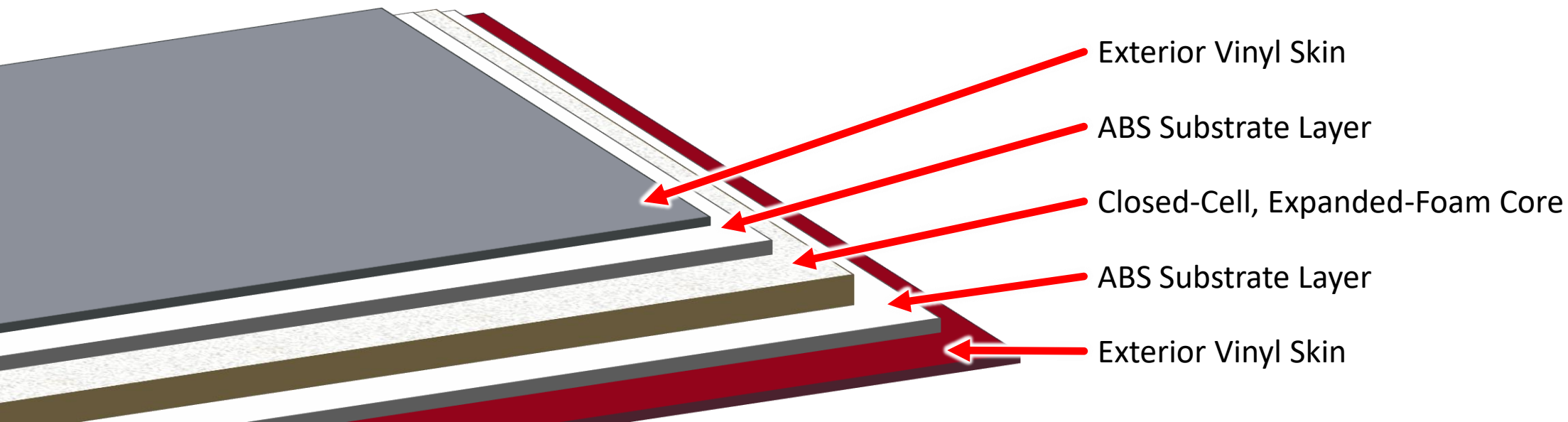
- **Triple Layer Polyethylene**
 - Stiffer than single layer polyethylene
 - More affordable than other laminates
 - Much heavier than other laminates
 - Difficult to repair



Canoeing Basics

Canoe Material – Laminate

- **Royalex Canoes**
 - Acrylonitrile butadiene styrene
 - Tough, rigid plastic
 - Stronger and more flex than aluminum, fiberglass, polyethylene



Canoeing Basics

Canoe Material

- **Royalex Canoes**
 - Nearly indestructible (but NOT Scoutproof)
 - Return to their original shape if bent or dented
 - Repairs are seldom needed
 - If repair is needed - they can be difficult to do
 - Choice of many experienced paddlers for running rapids and embarking on extended expeditions
 - 2013 PolyOne purchased Spartech and rights to Royalex
 - Production was closed due to lack of demand
 - Prices for Royalex Canoes skyrocketed
 - New Royalex Canoes are no longer made

Canoeing Basics

Canoe Material

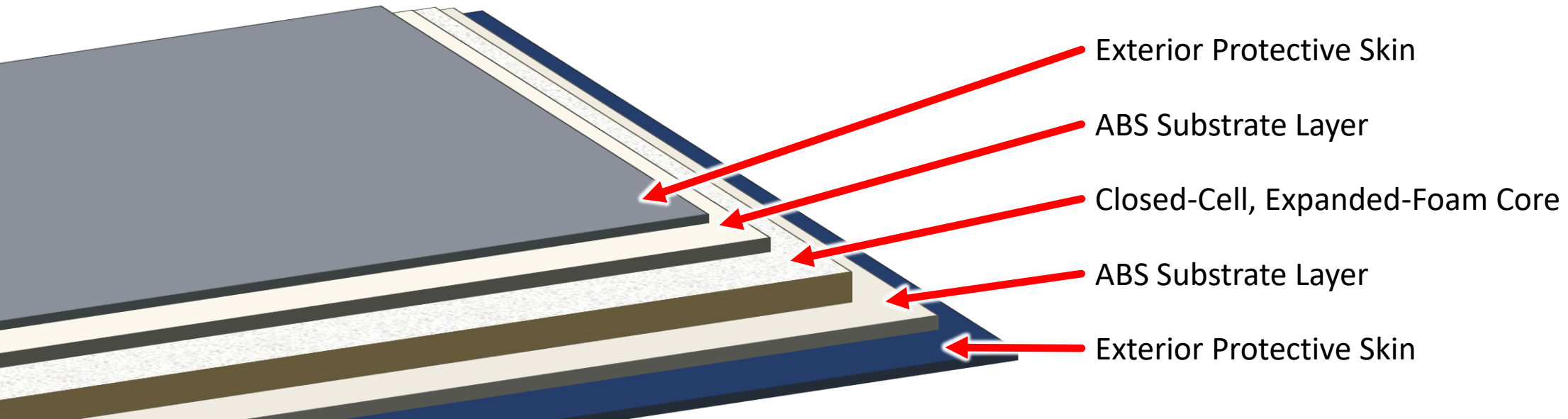
- **Royalex Canoes**
 - Old Town Pack Canoe
 - 33-pound solo canoe
 - Discontinued



Canoeing Basics

Canoe Material – Laminate

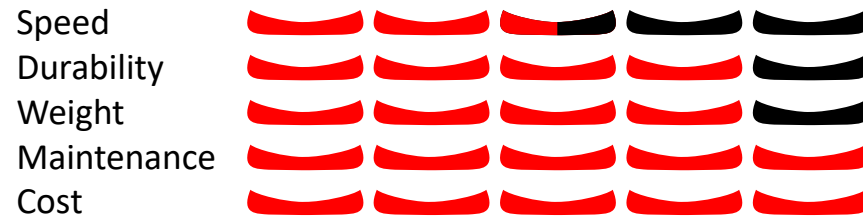
- **T-Formex** – Similar to Royalex
 - High tech ABS plastic laminate
 - Foam in middle provides floatation and rigidity
 - Vinyl protects foam and adds more structural
 - Proprietary outer layer for abrasion and UV resistance



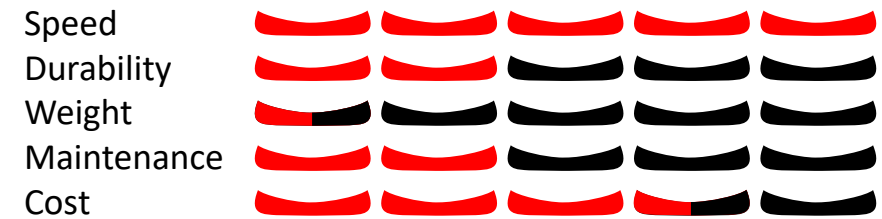
Canoeing Basics

Canoe Material

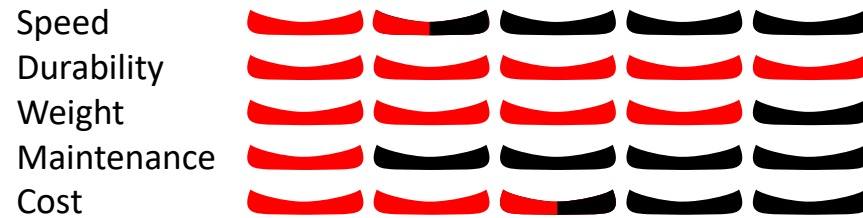
Wood



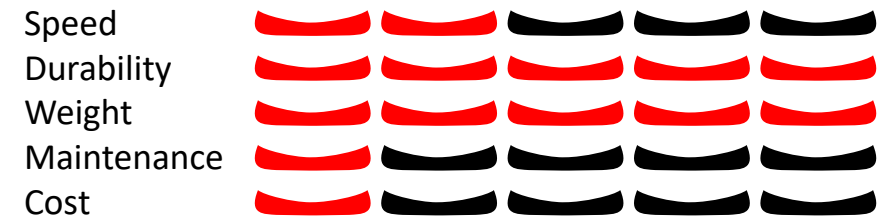
Kevlar



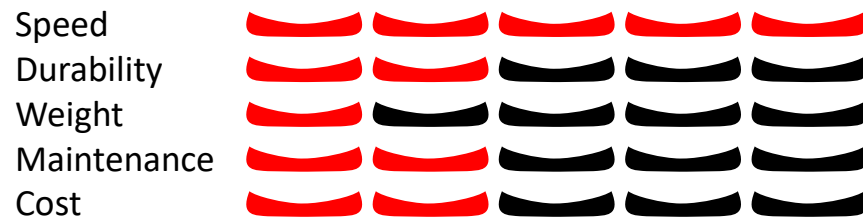
Aluminum



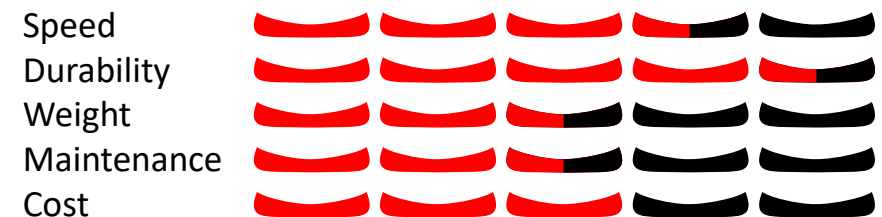
Polyethylene



Fiberglass



Laminates

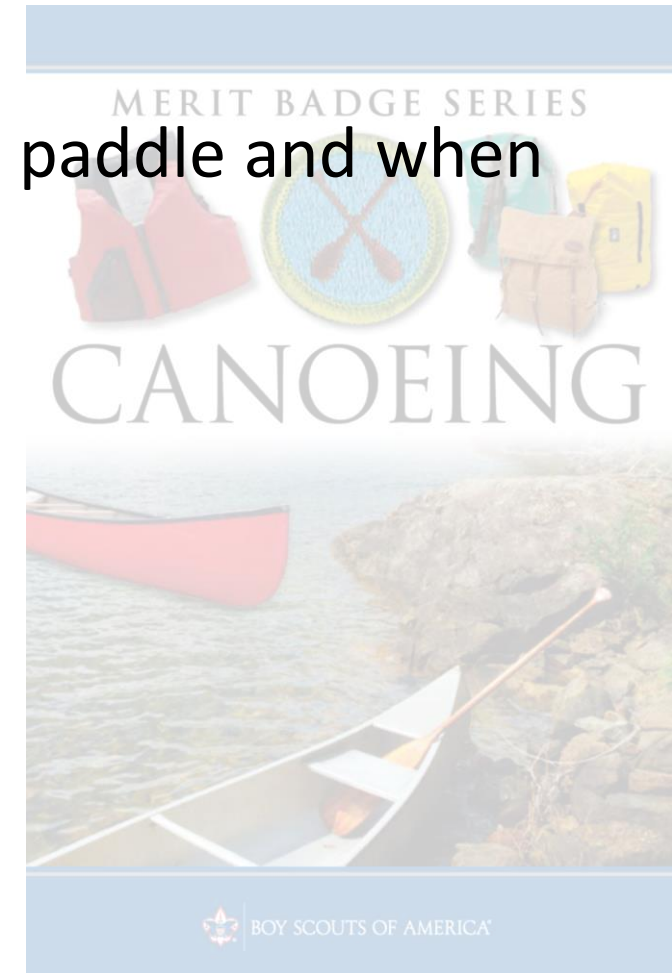


Canoeing Basics

Requirement 4a – Paddle

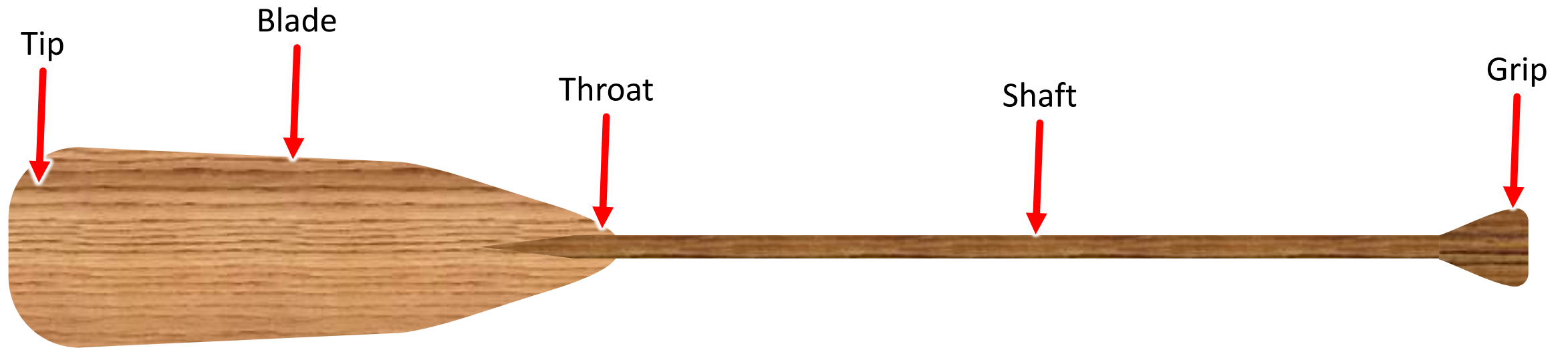
Name and point out the parts of a paddle.

Explain the difference between a straight and bent-shaft paddle and when each is best used.



Canoeing Basics

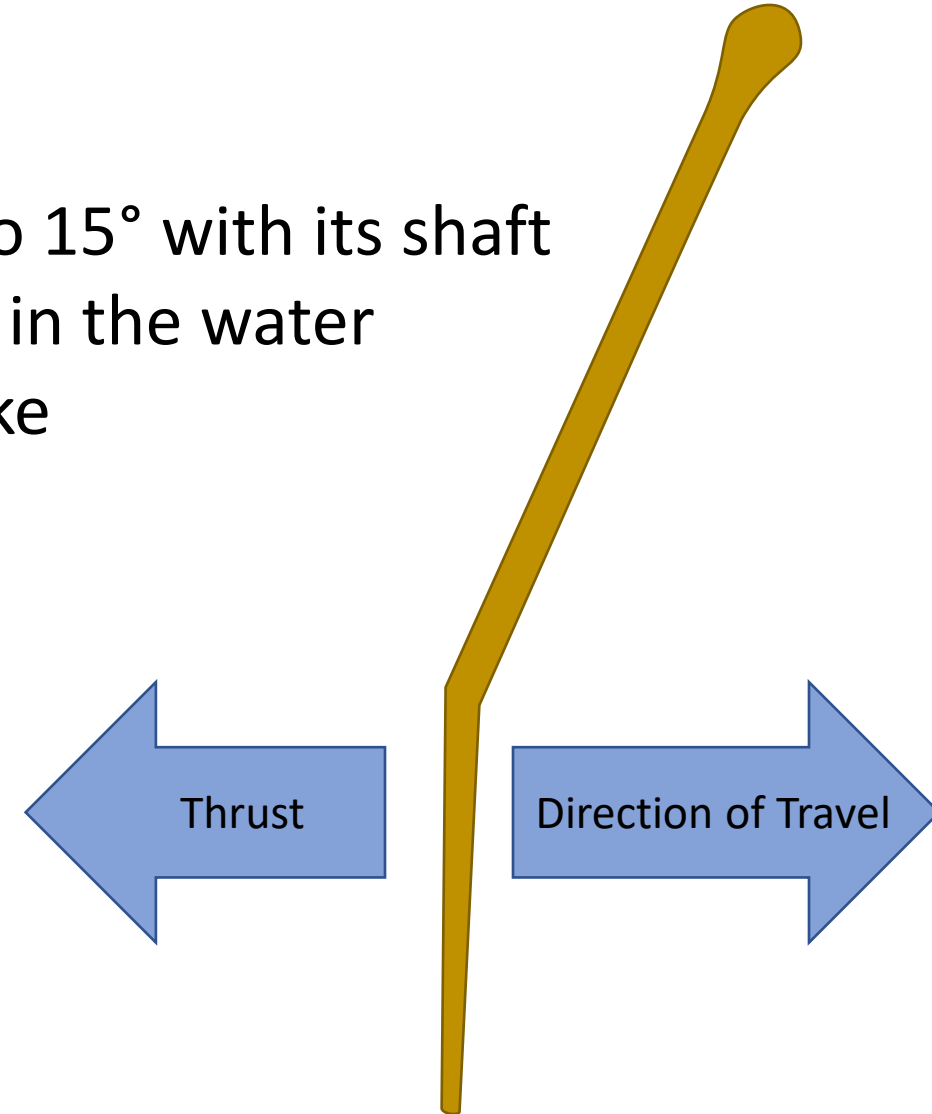
Paddle



Canoeing Basics

Paddle

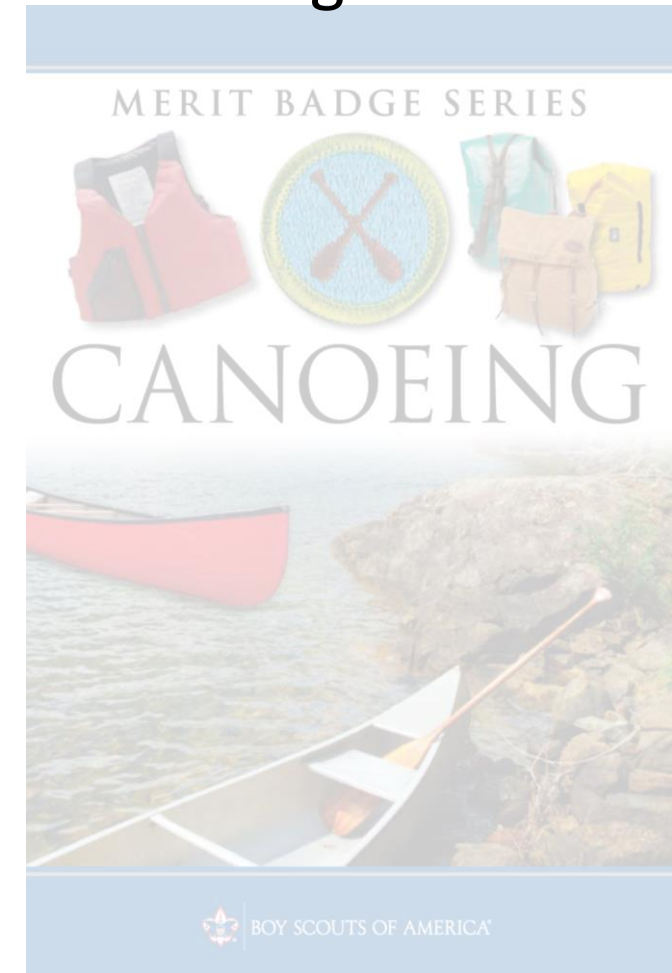
- Bent-Shaft Paddle
 - Blade of a paddle bent at an angle of up to 15° with its shaft
 - Prolong the time that the blade is vertical in the water
 - Improves efficiency at the end of the stroke
 - More difficult to make turning strokes



Canoeing Basics

Requirement 4b – Paddle Size

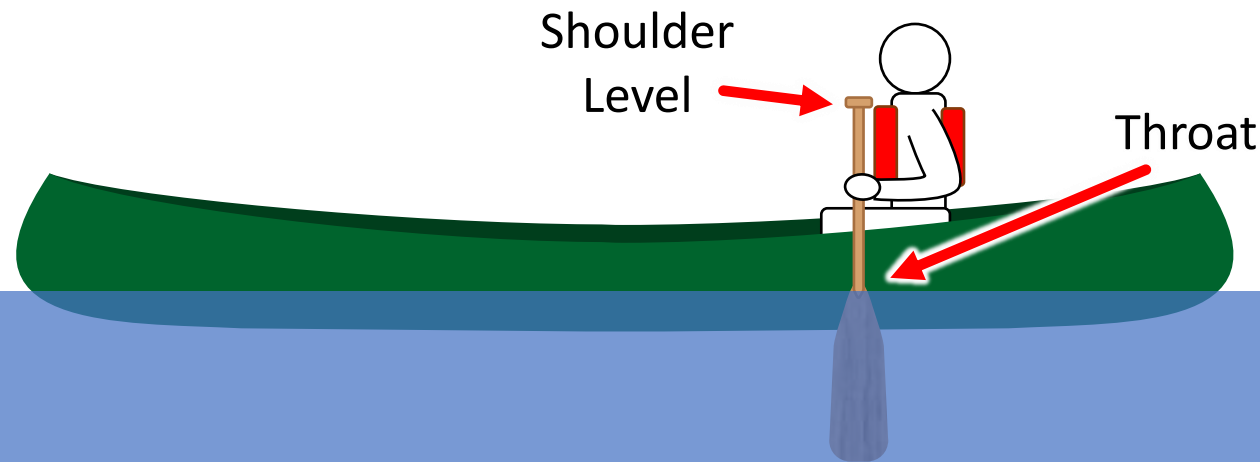
Demonstrate how to size correctly a paddle for a paddler in a sitting position and a kneeling position.



Canoeing Basics

Paddle Sizing – On Water

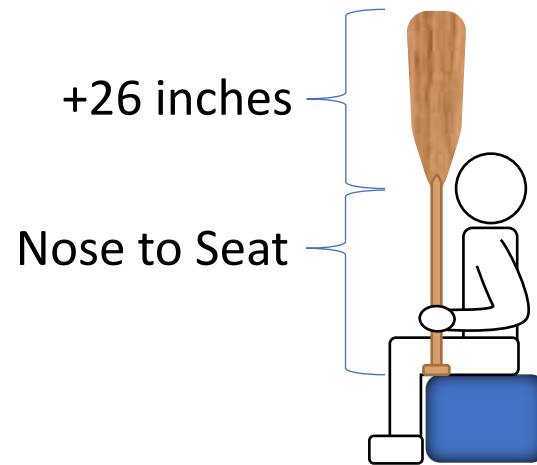
- Place the blade in the water up to the throat
- Keep the paddle vertical in the water
- Grip should be between your shoulder and your chin for a proper fit



Canoeing Basics

Paddle Sizing – On Land – Seated

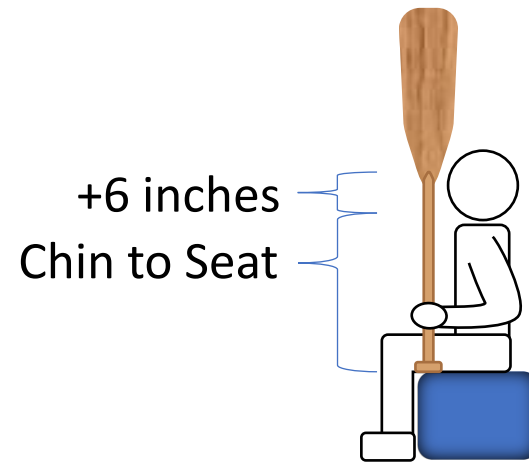
- **Seated – Paddle Measurement**
 - Measure seat to nose
 - Add 26 inches
- Consider adding 2 inches if solo or stern seated



Canoeing Basics

Paddle Sizing – On Land – Seated

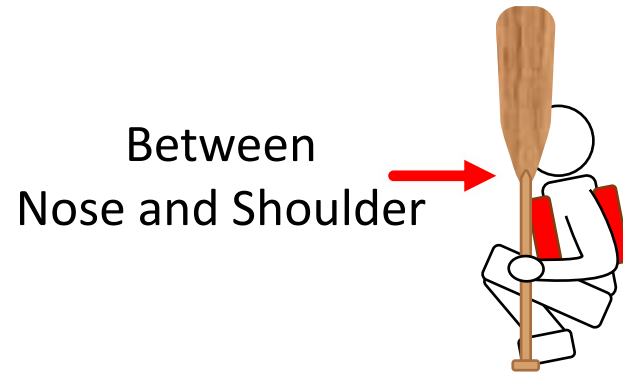
- **Seated – Shaft Measurement**
 - Measure chin to seat
 - Add 6 inches



Canoeing Basics

Paddle Sizing – On Land – Seated

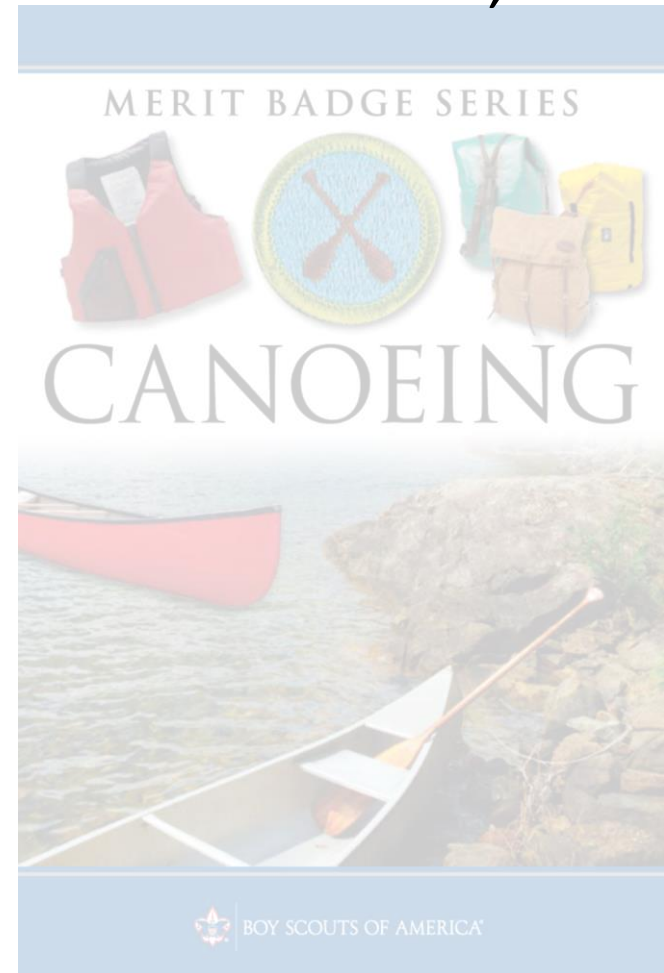
- **Crouch**
 - About height you would be above the water if in canoe
- Put the grip on the ground
- Throat of the paddle should be between your shoulder and nose



Canoeing Basics

Requirement 6 – Care of Equipment

Discuss with your counselor the general care and maintenance of canoes, paddles, and other canoeing equipment.



Canoeing Basics

Care of Equipment – Wash

- Wash off gear after use and allow to dry
 - Salt corrodes metal fasteners
 - Freshwater can create nasty odors
 - Microorganisms can be transported between bodies of water

Canoeing Basics

Care of Equipment – Inspect

- Inspect all gear before storage
 - Identify items that need to be replaced
 - Restock first aid gear
 - Repair items before next use
 - Some gear need periodic treatment
 - Wood need water-resistant treatment
 - Textiles may need UV protective treatment

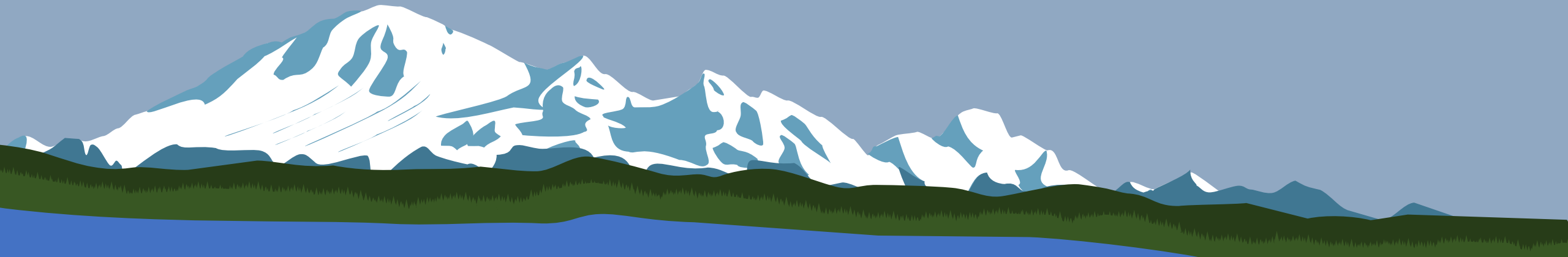
Canoeing Basics

Care of Equipment – Storage

- Empty out food from storage bins
 - Yuk!
- Store in cool and dry area protected from the sun
- Keep wood gunwales off the ground



Canoeing Hands On

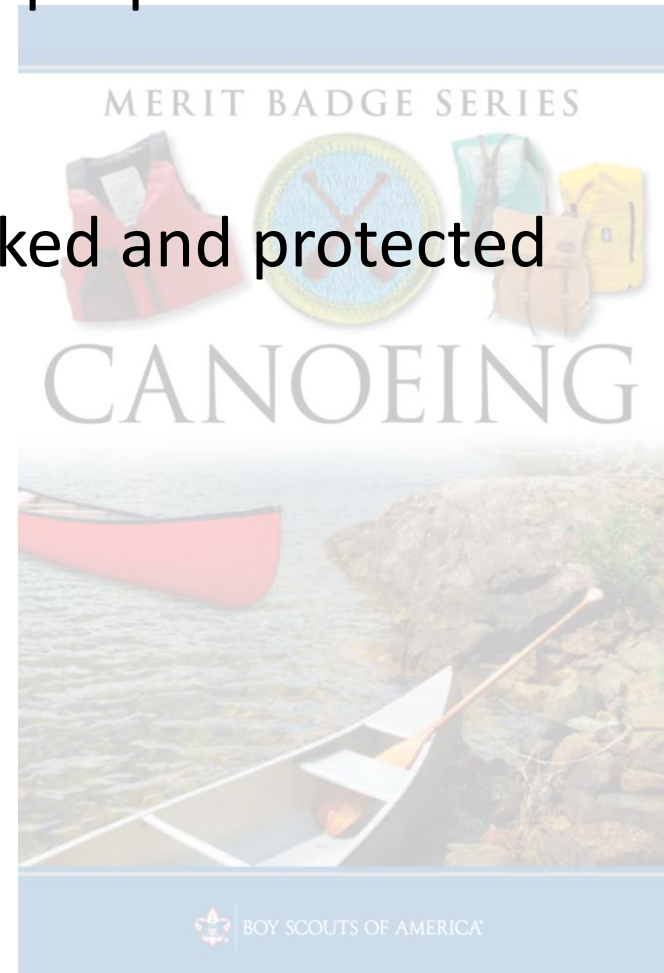


Canoeing Hands On

Requirement 7a – Packing Equipment

Discuss what personal and group equipment would be appropriate for a canoe camping trip.

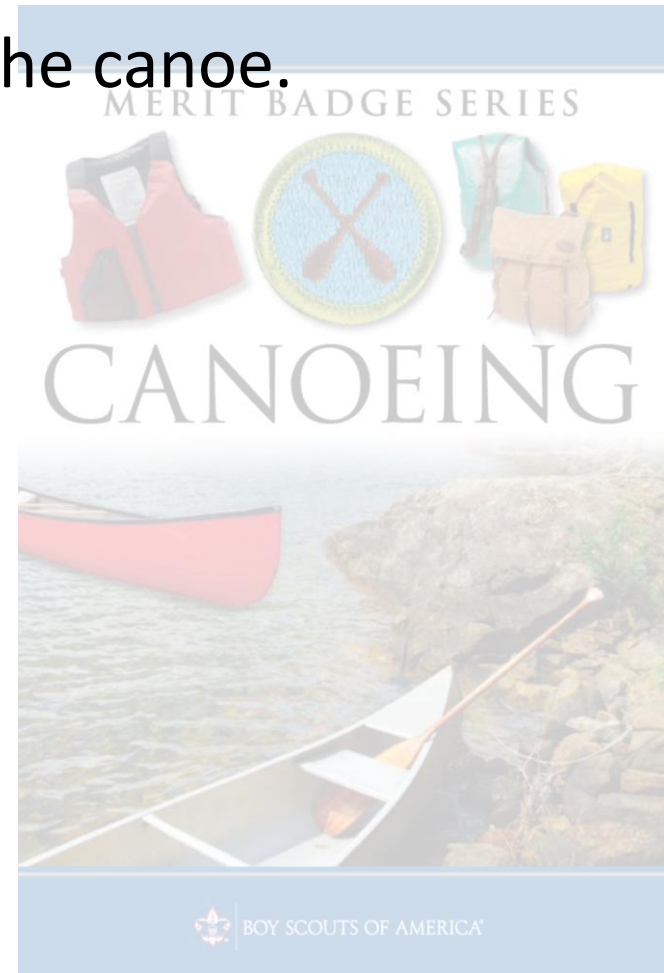
Describe how personal and group equipment can be packed and protected from water.



Canoeing Hands On

Requirement 7b – Load and Secure Containers

Using the containers and packs from requirement 7a, demonstrate how to load and secure the containers and other equipment in the canoe.



Canoeing Hands On

Packing Equipment

- Don't overpack
 - Per U.S. Coast Guard - capacity of boat is when loaded until
 - 6 inches of freeboard
the distance between the water surface and the gunwales
 - Canoe should be "Trim"
 - Balance in water End to End
 - Balanced in water Side to Side
 - If not Trim, will be unstable in water

Canoeing Hands On

Packing Equipment – Waterproofing

- Waterproof Gear
 - Drybags
 - Barrels and Buckets
 - Hard Cases
 - Trashbags



Canoeing Hands On

Packing Equipment – Waterproofing



Canoeing Hands On

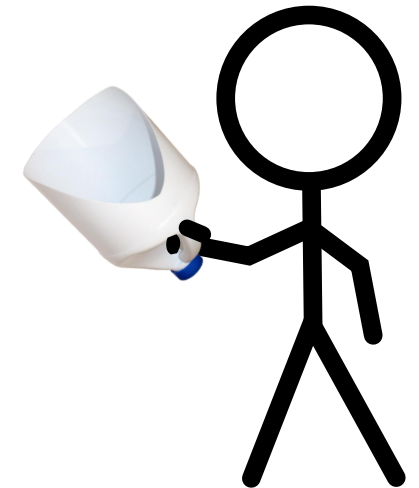
Packing Equipment

- Secure all Items
 - Why
 - Avoid losing gear over sides
 - Avoid losing everything if canoe capsizes
 - Use ropes – NOT bungies
 - Forces of water on gear can be significant
 - Bungee cords stretch and gear may find its way out

Canoeing Hands On

Packing Equipment – Basic Canoe Essentials

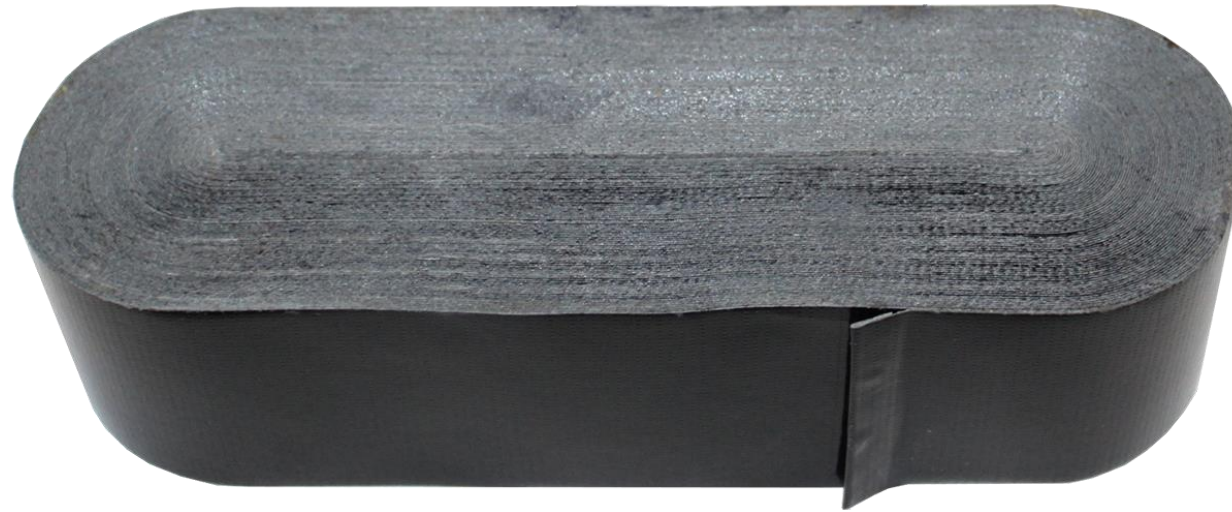
- Paddle
- Personal Floatation Device
- Emergency Kit
 - Bailer – often made from a bleach or milk jug
 - 50' buoyant heaving line
 - Flashlight
 - Mirror
 - Whistle
- Duct Tape



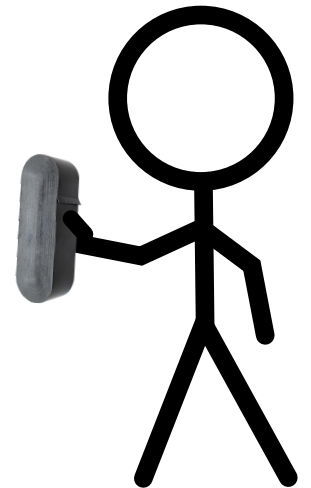
Canoeing Hands On

Packing Equipment – Basic Canoe Essentials

- Duct Tape
 - So many uses!



Duct Tape
Center cardboard removed
Flattened to pack better



Canoeing Hands On

Packing Equipment – Basic Essentials

- Pocketknife
- Flashlight
- First-aid kit
- Trail food
- Extra clothing
- Matches and fire starters
- Rain gear Sun protection
- Water bottle
- Map and compass



Canoeing Hands On

Packing Equipment – Personal Overnight Camping Gear

- Long synthetic-blend or wool pants (no cotton jeans or sweatpants)
- T-shirts
- Long-sleeved shirt
- Underwear
- Socks (medium-weight wool or thin polypropylene ones)
- Warm wool or fleece pullover or jacket (no cotton sweatshirts)
- Rain gear with hooded jacket
- Hooded parka or coat
- Gloves
- Shoes with nonslip tread that can get wet and will dry quickly
- Sneakers or light running shoes to wear in camp
- Hat with a brim in summer; woolen cap for cold weather
- Swimming trunks*
- Personal toiletries (comb, lip balm, toothbrush, toothpaste, metal mirror, medications)
- Small towel and washcloth
- Insect repellent
- Mesh head net to ward off insects from your face

Canoeing Hands On

Packing Equipment – Personal Overnight Camping Gear

- Sunglasses with eyeglass strap
- Personal utensils (bowl, plate, cup, spoon)
- Sleeping bag or bedroll in waterproof stuff bag
- Ground cloth
- Sleeping pad
- Water bottle
- Water treatment tablets or filter system
- Biodegradable soap
- Flashlight with extra batteries and bulb
- Water-resistant watch
- Whistle
- Butane lighter or matches stored in a waterproof container
- Fire starters
- Paper and pen or pencil
- Emergency coins
- Camera (waterproof it!)

Canoeing Hands On

Packing Equipment – Group Equipment

- Tents with poles, ground cloths, lines, and stakes
- Dining fly with lines and stakes
- Nylon cord (50 feet)
- Butane lighter or matches stored in waterproof container
- Toilet paper
- Backpacking stoves and fuel
- Cook kit (pots, pans, spatula, large spoon, ladle, plastic sheets)
- Cleanup kit (biodegradable soap, sanitizing rinse agent such as bleach, scouring pads, trash can liners, toilet paper in plastic bag)
- Repair kit (duct tape, thread, needles, safety pins)
- Group extras (tongs, camp shovel, saw or ax, collapsible water container, grill, lantern)

- Don't forget to pack at least one extra paddle

- In bear country, a bear-proof container is needed

Canoeing Hands On

Requirement 7c – Secure a Canoe

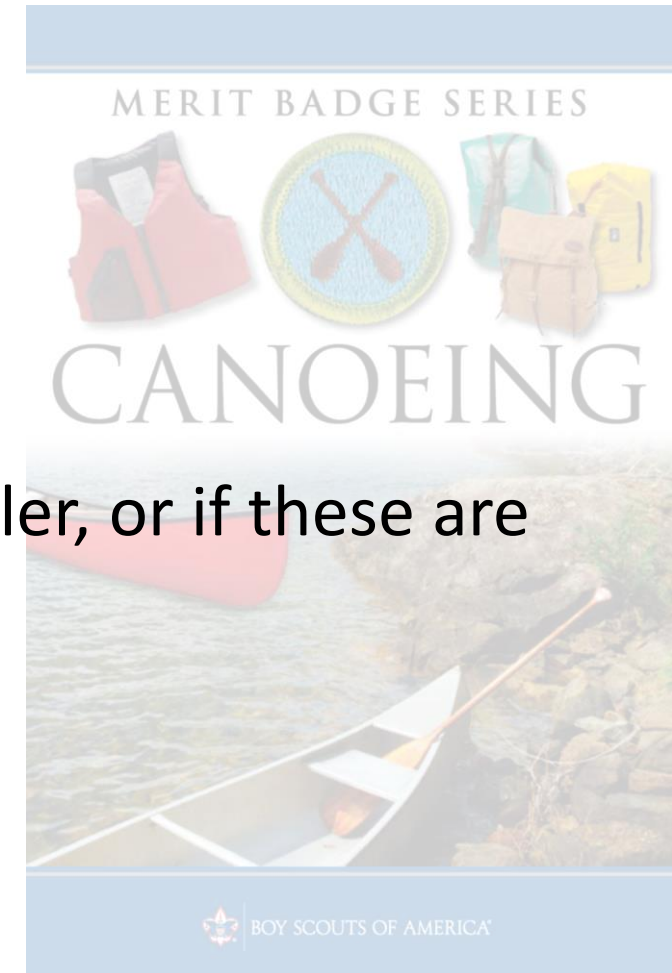
Using appropriate knots, including a:

Trucker's hitch

Tautline hitch

Bowline

demonstrate how to secure a canoe to a vehicle or a trailer, or if these are not available, a rack on land.



Canoeing Hands On

Secure a Canoe



youtube.com/watch?v=Gq2c6ispgFE

Canoeing Hands On

Secure a Canoe

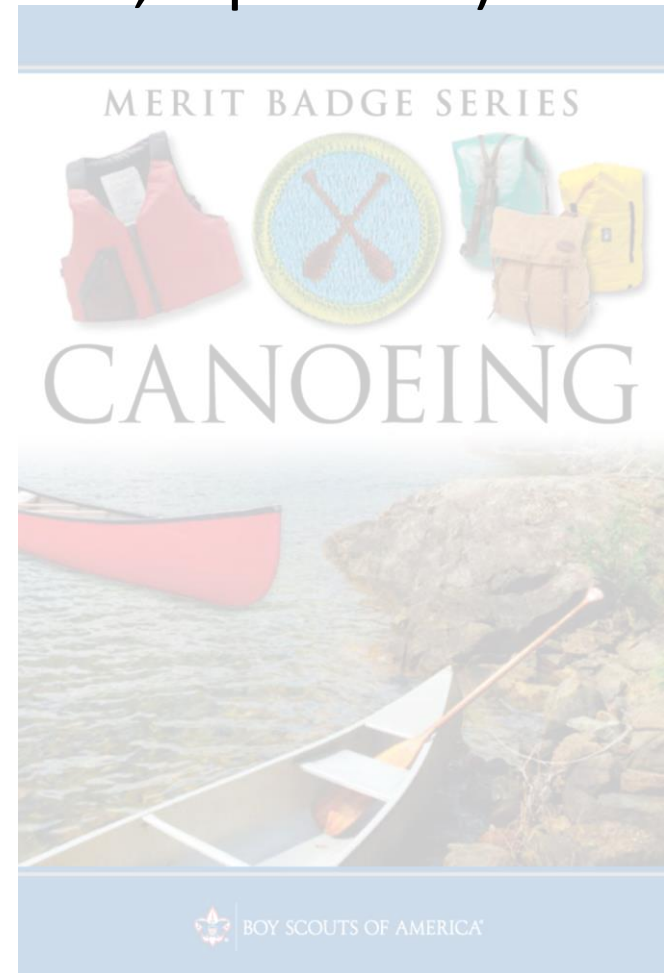


youtube.com/watch?v=3uJ9wWLfDa4

Canoeing Hands On

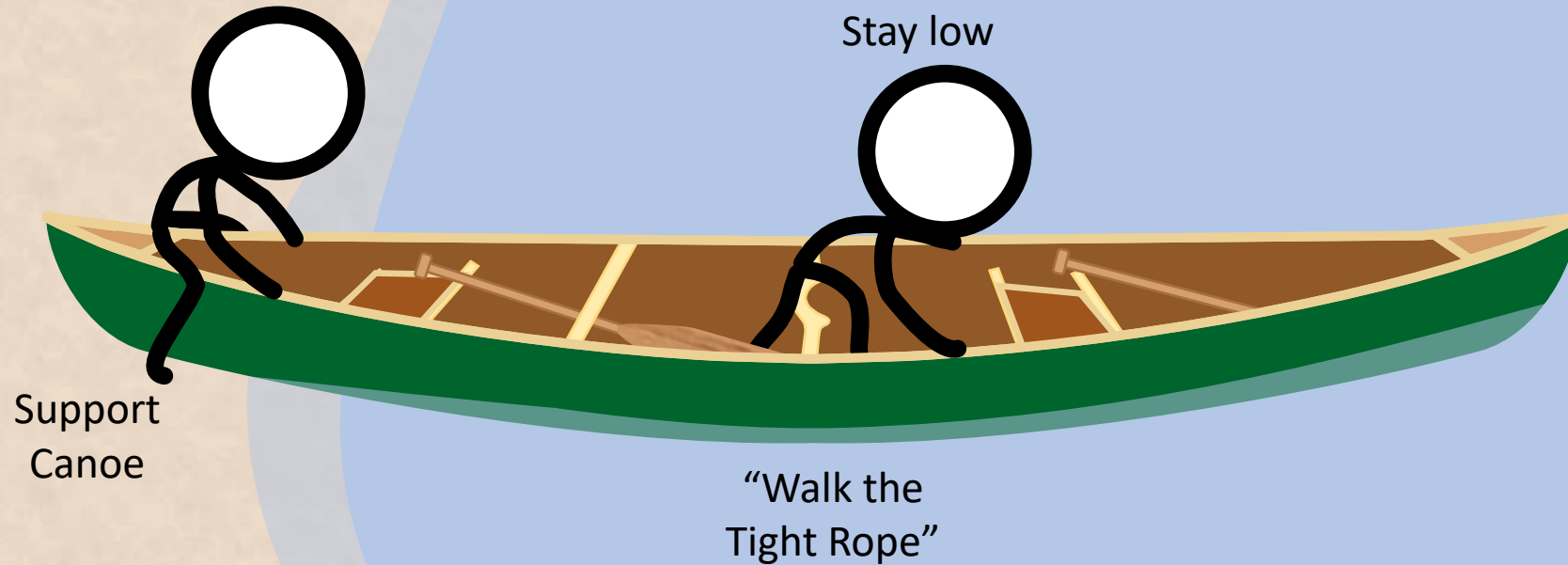
Requirement 8a – Launch a Tandem Canoe

Safely carry and launch the canoe from a dock or shore (both, if possible).



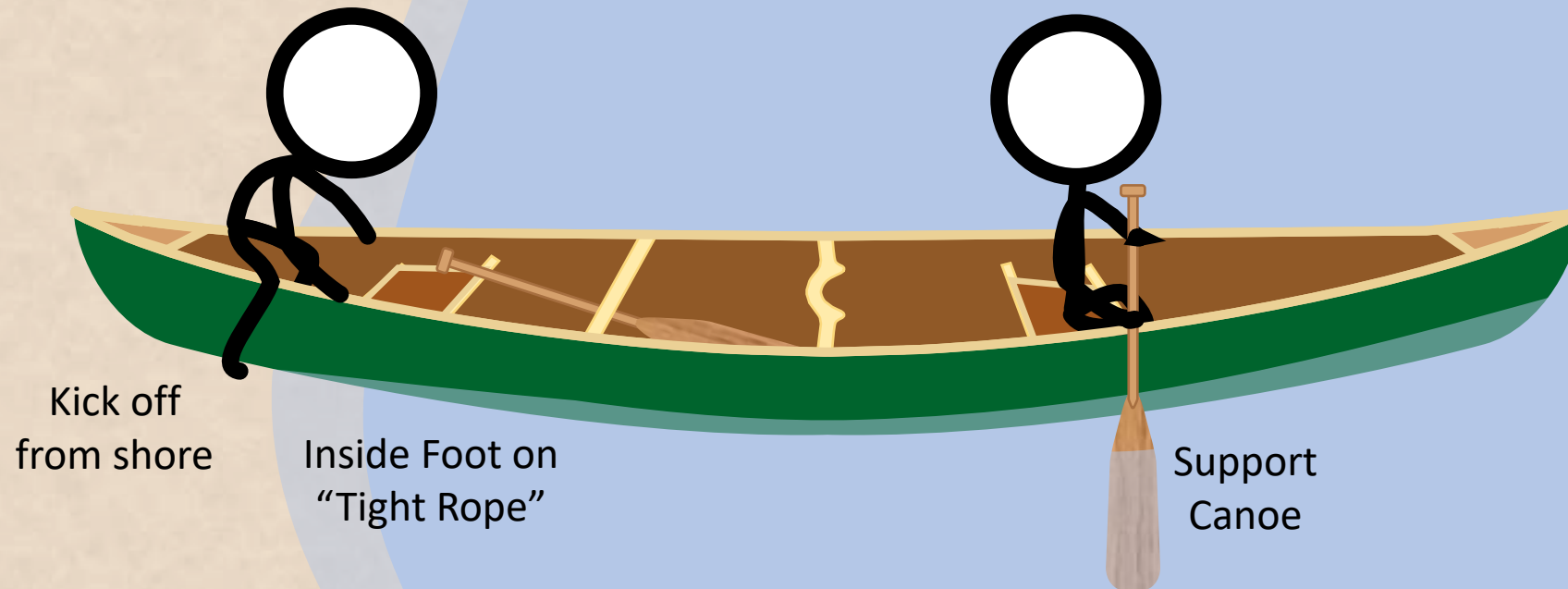
Canoeing Hands On

Launch a Tandem Canoe



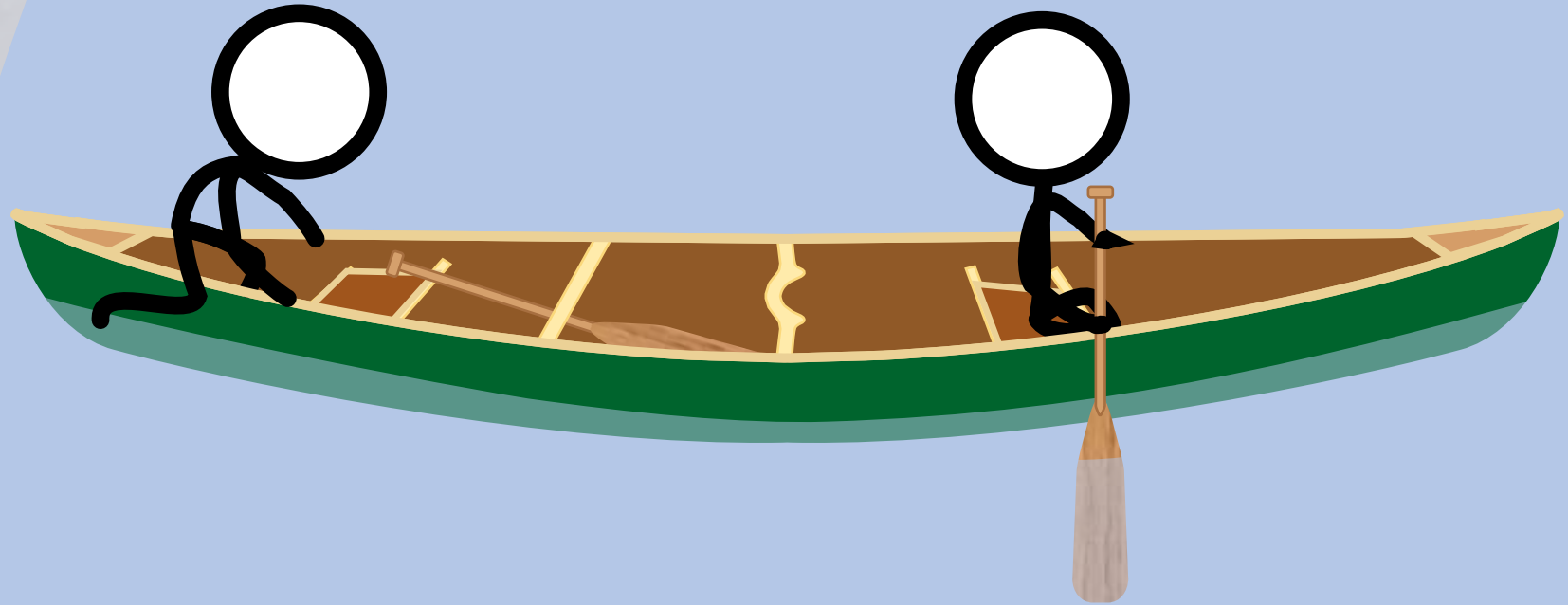
Canoeing Hands On

Launch a Tandem Canoe



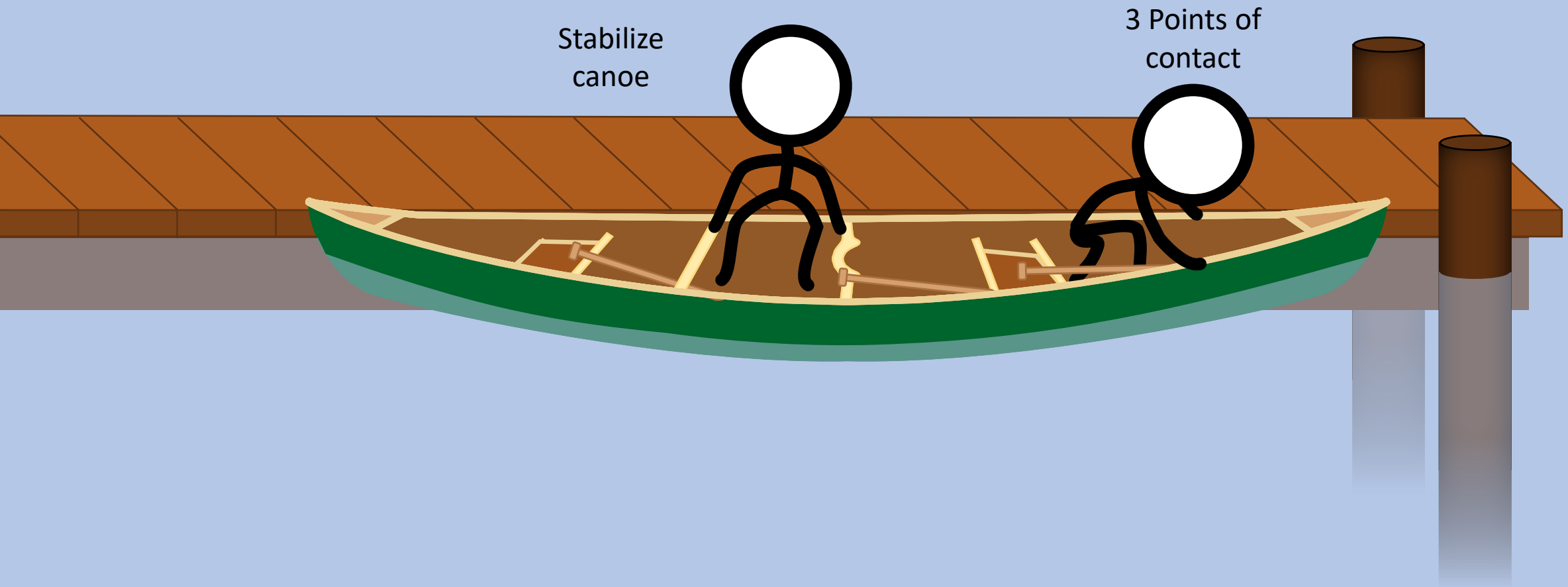
Canoeing Hands On

Launch a Solo Canoe



Canoeing Hands On

Launch a Tandem Canoe from a Dock



Canoeing Hands On

Requirement 8b – Land a Tandem Canoe

Safely land the canoe on a dock or shore (both, if possible) and return it to its proper storage location.



Canoeing Hands On

Launch & Land a Canoe



www.youtube.com/watch?v=NzHOfEq4GIM

Canoeing Hands On

Launch & Land a Canoe



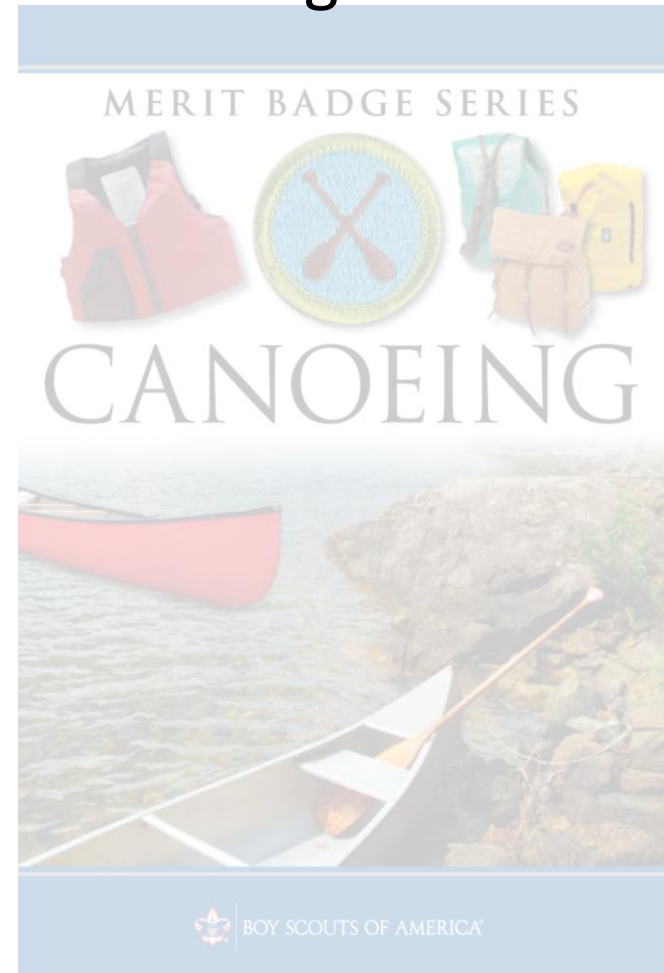
www.youtube.com/watch?v=6xRWA9S0LEM

Canoeing Hands On

Requirement 12a – Solo – Launch

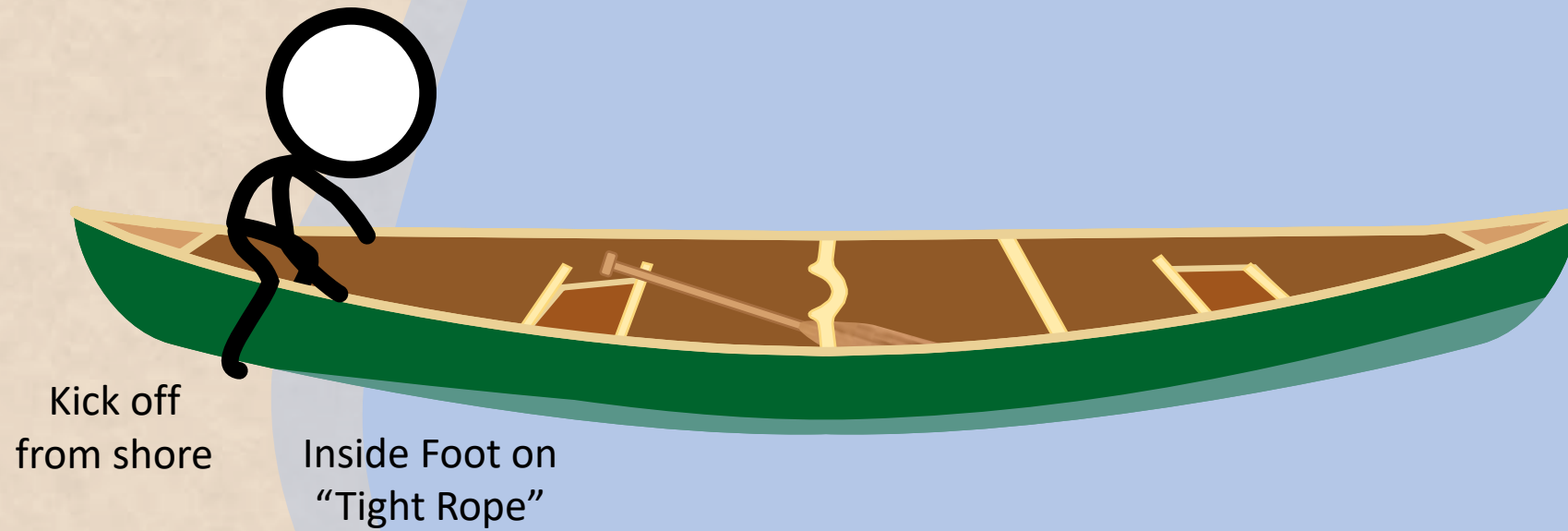
Use a properly equipped canoe to demonstrate solo canoe handling:

Launch from shore or a pier (both, if possible).



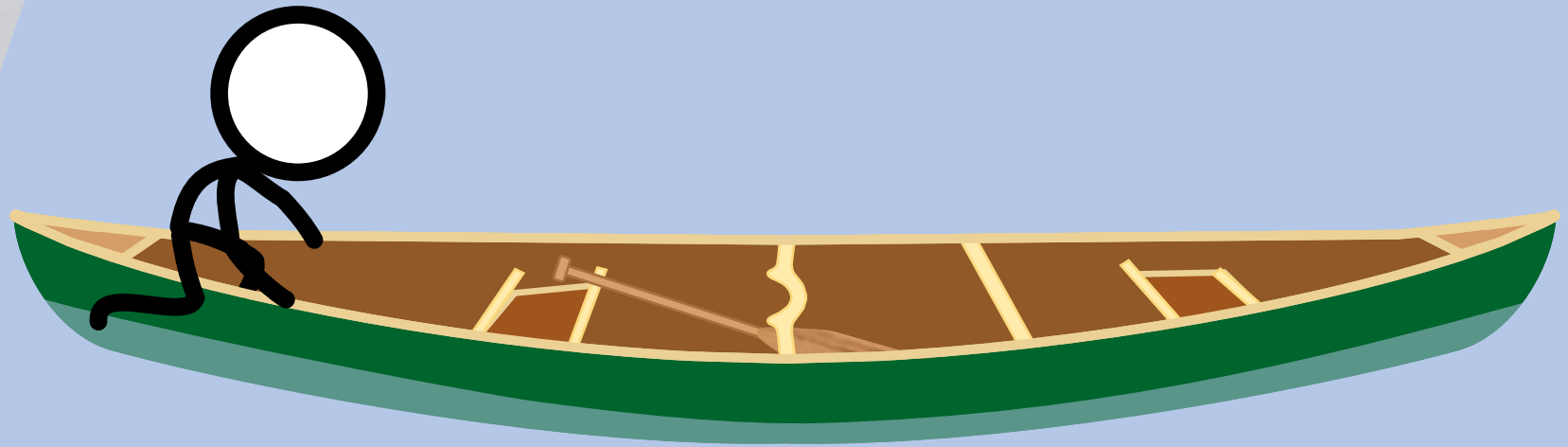
Canoeing Hands On

Launch a Canoe Solo



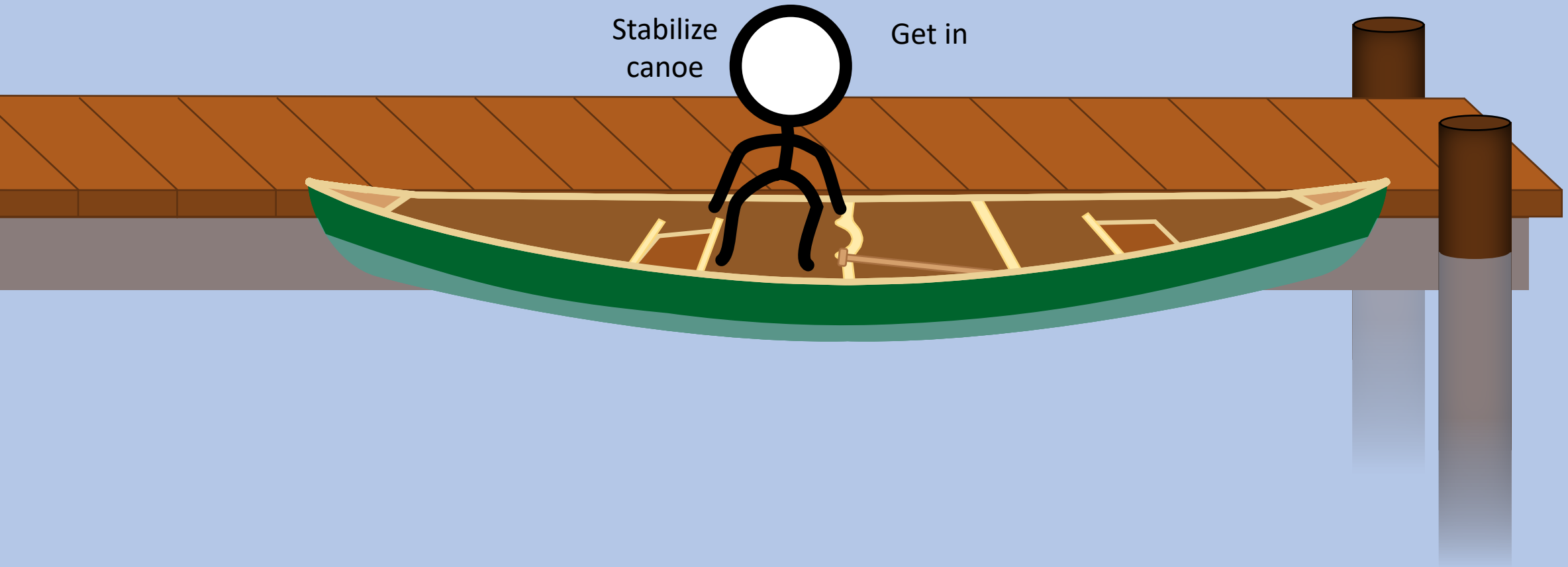
Canoeing Hands On

Launch a Canoe Solo



Canoeing Hands On

Launch a Canoe from a Dock Solo



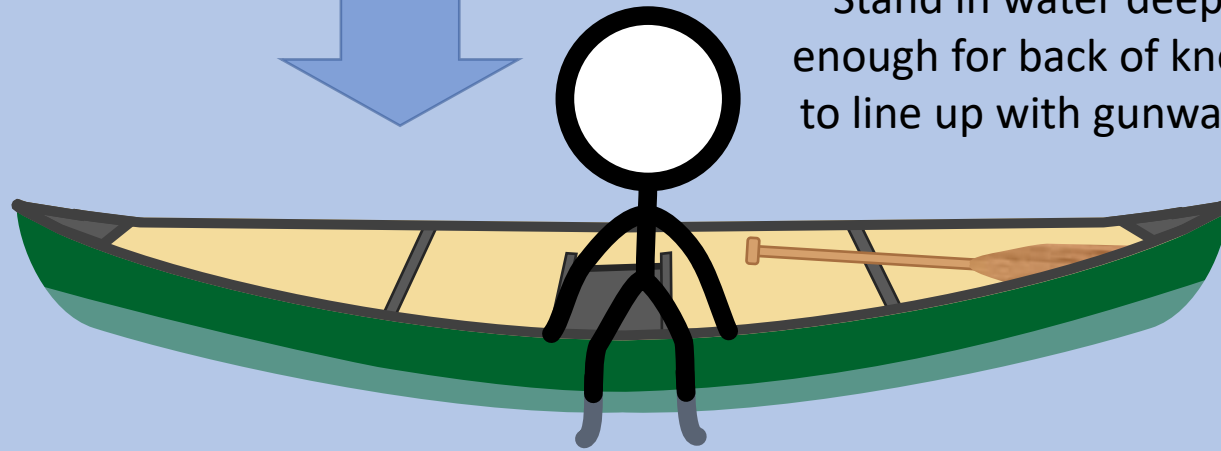
Canoeing Hands On

Launch an Ultralight Canoe

If water is flowing,
position canoe upstream



Stand in water deep
enough for back of knee
to line up with gunwale



Sit back into canoe

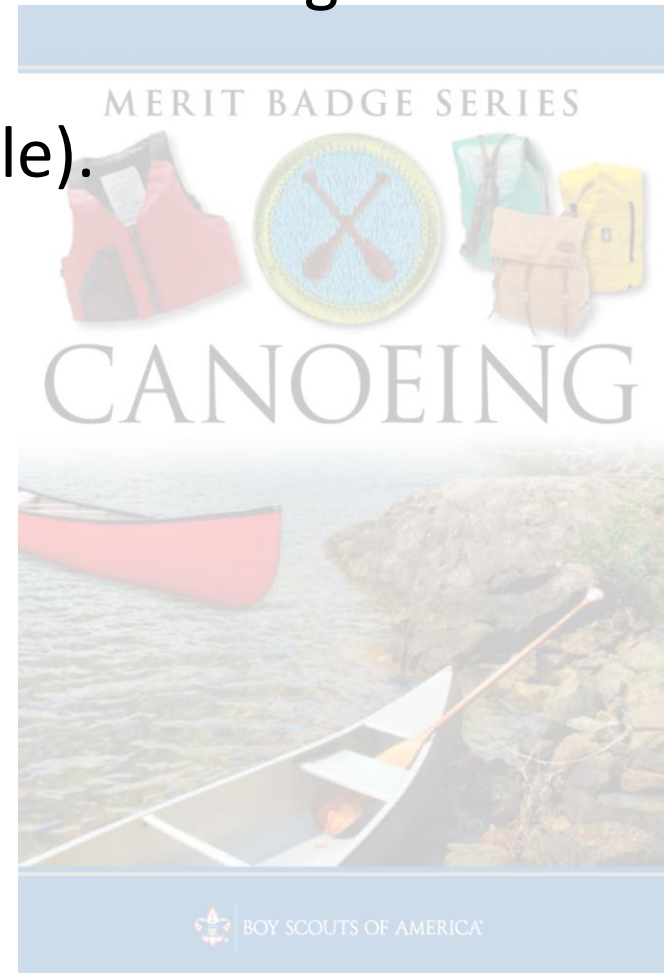
Canoeing Hands On

Requirement 12d – Solo – Landing

Use a properly equipped canoe to demonstrate solo canoe handling:

Make a proper landing at a dock or shore (both, if possible).

Store canoe properly (with assistance, if needed).



Canoeing Hands On

Launch & Land a Canoe – Solo

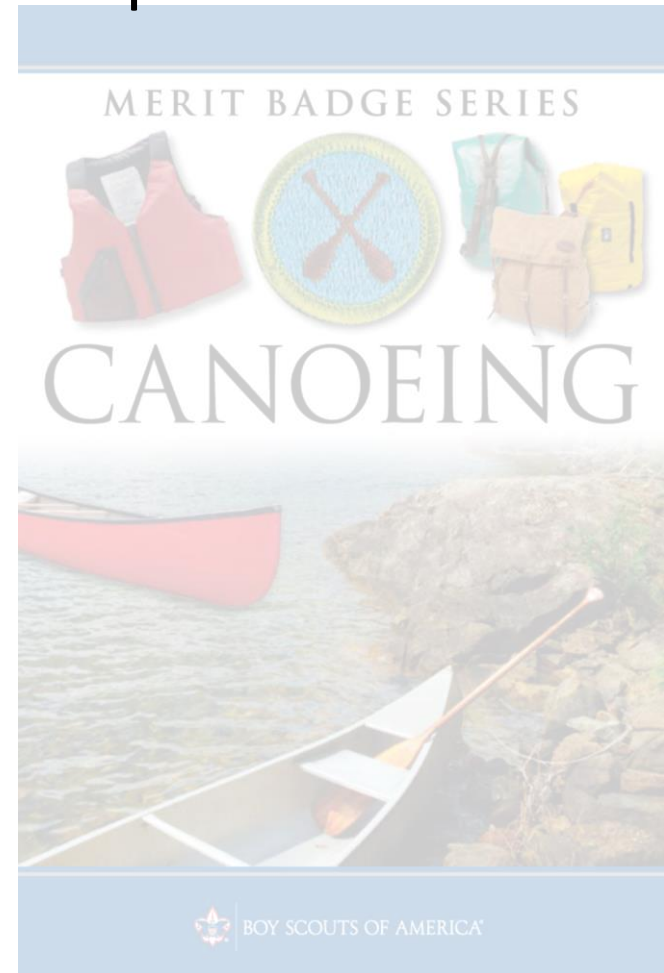


www.youtube.com/watch?v=zRNSCkudcn4

Canoeing Hands On

Requirement 8c – Kneeling and Sitting

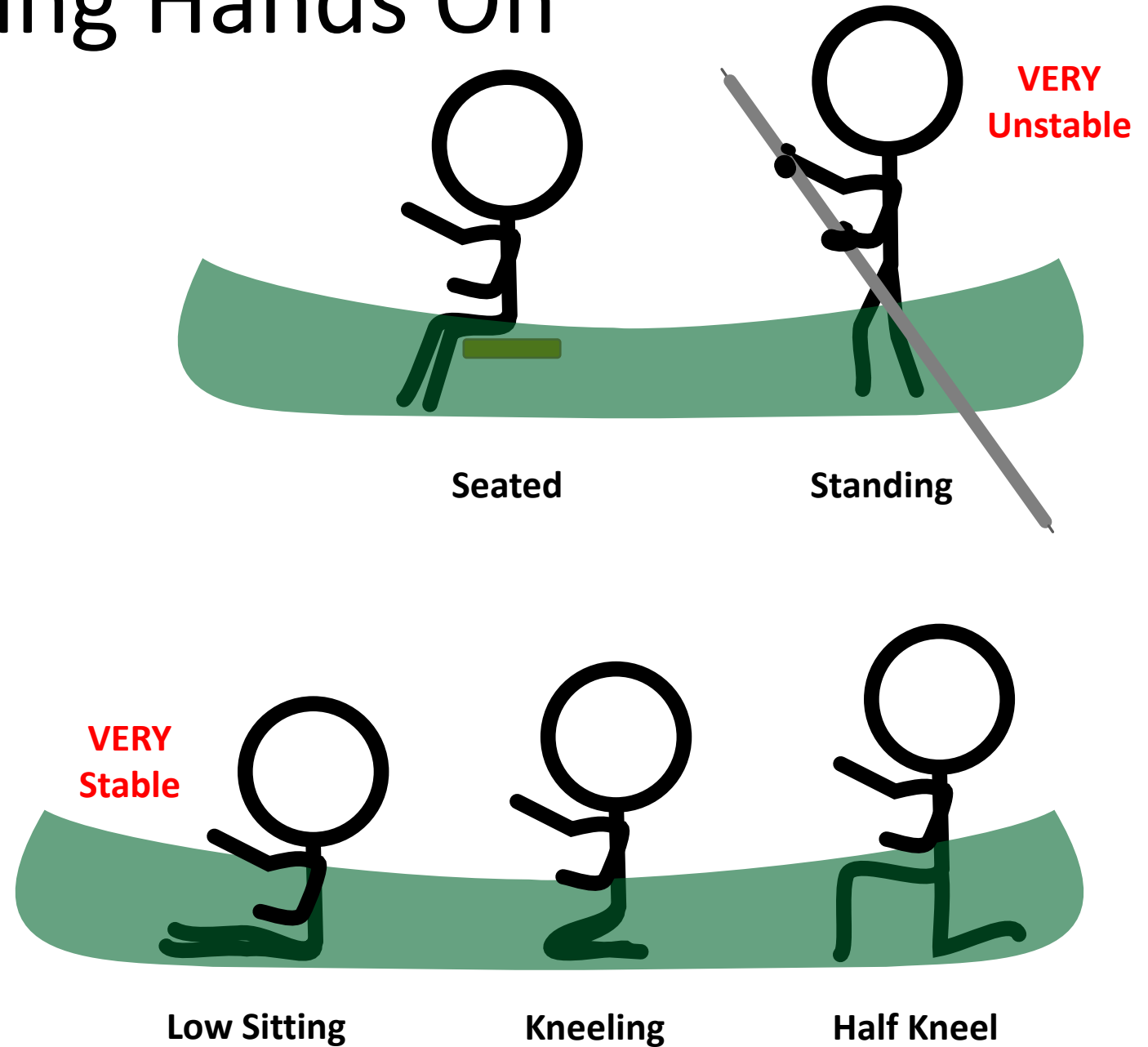
Demonstrate kneeling and sitting positions in a canoe and explain the proper use for each position.



Canoeing Hands On

Canoe Positions

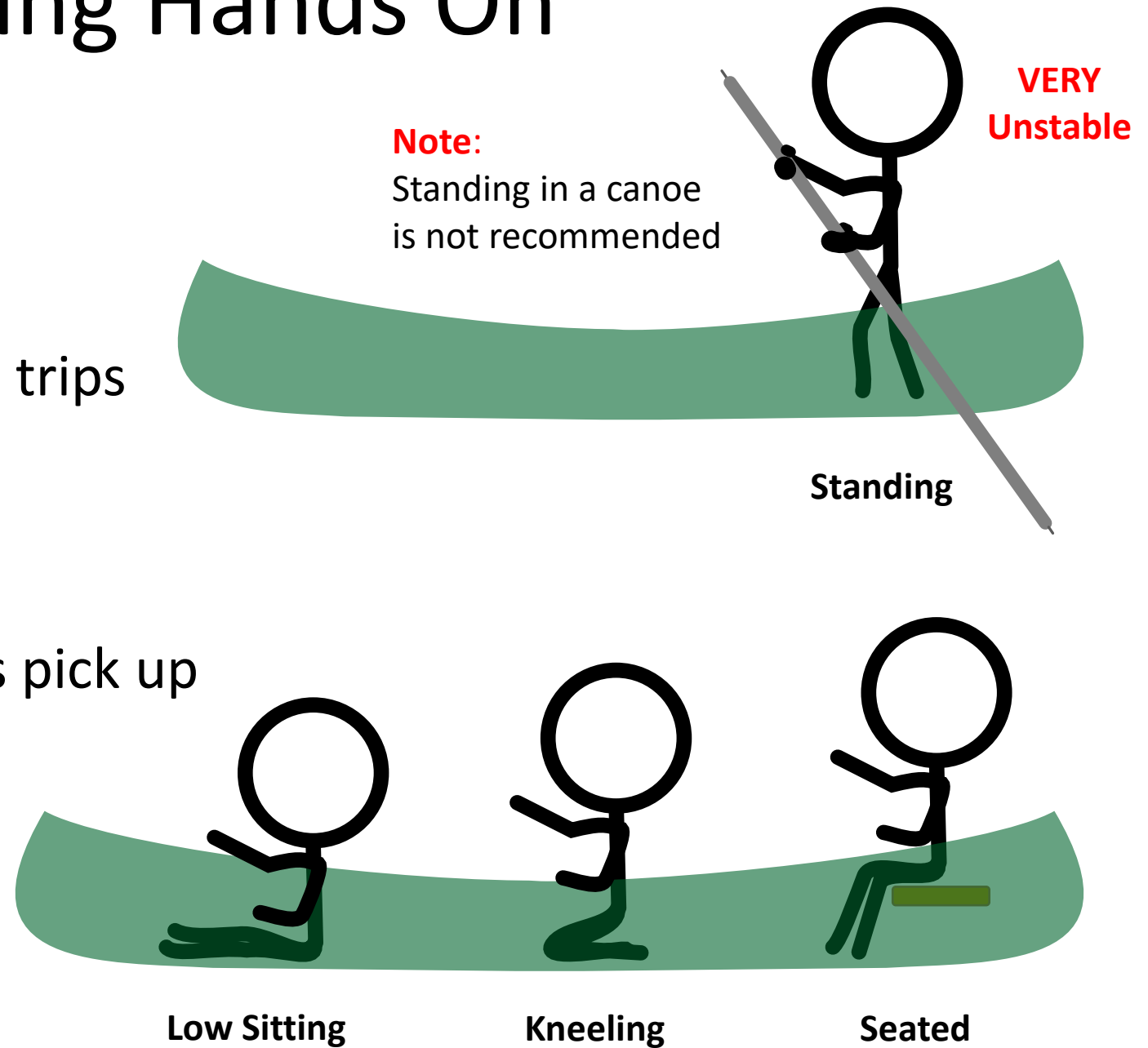
- Multiple positions
 - **Standing**
 - **Seated**
 - **Kneeling**
 - **Half-Kneel**
 - **Low Sitting**
- Lower center of gravity equals MORE stability



Canoeing Hands On

Kneeling vs Sitting

- **Seated**
 - Comfortable
 - Great for nice calm canoe trips
- **Kneeing**
 - More stable
 - Better control of canoe
 - Use when winds or waves pick up
- **Low Sitting**
 - For those not paddling
 - Option if really rough or tired of kneeling



Canoeing Hands On

Kneeling and Sitting

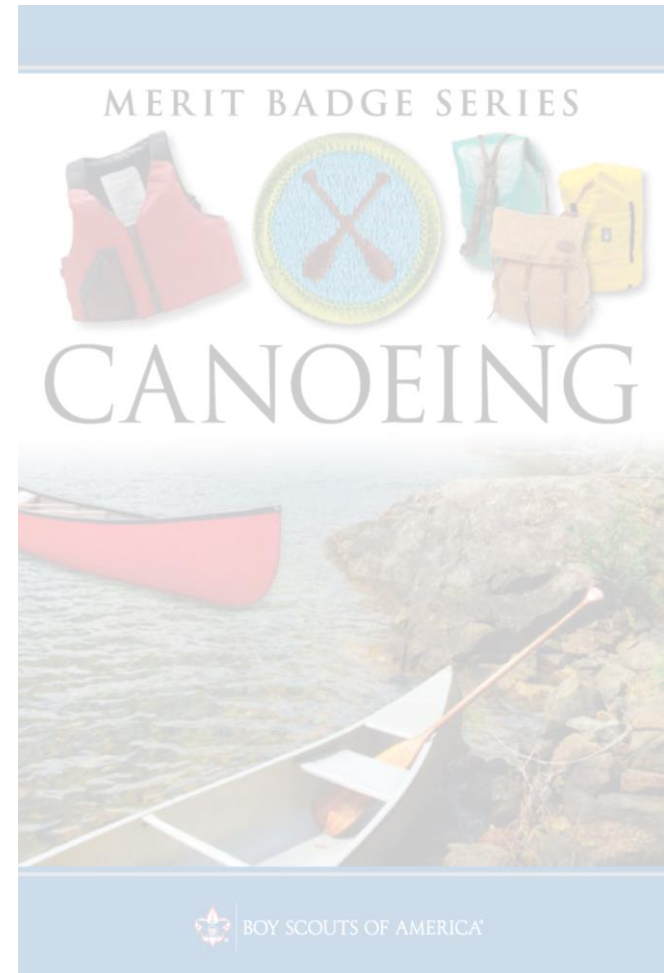


www.youtube.com/watch?v=5lyRGXJsaGA

Canoeing Hands On

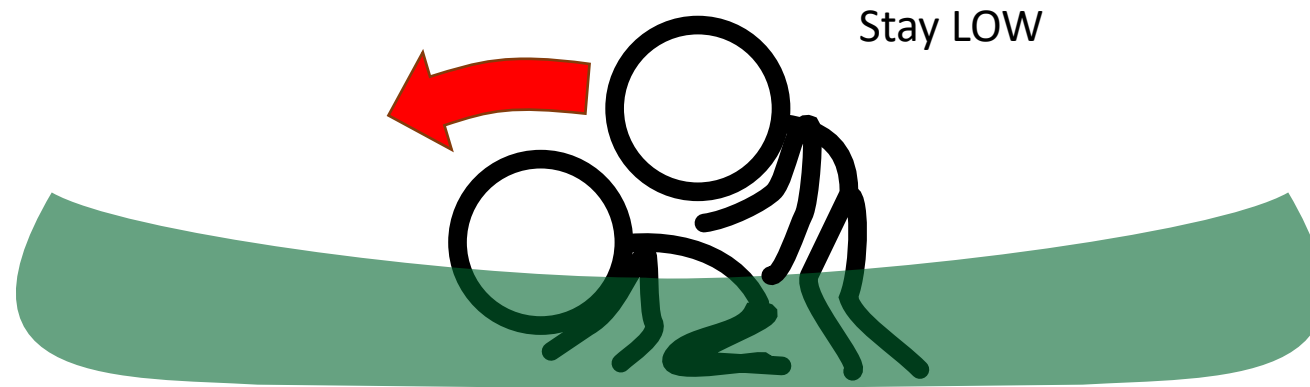
Requirement 8d – Changing Places while Afloat

Change places while afloat in the canoe.



Canoeing Hands On

Changing Places while Afloat



Canoeing Hands On

Changing Places while Afloat



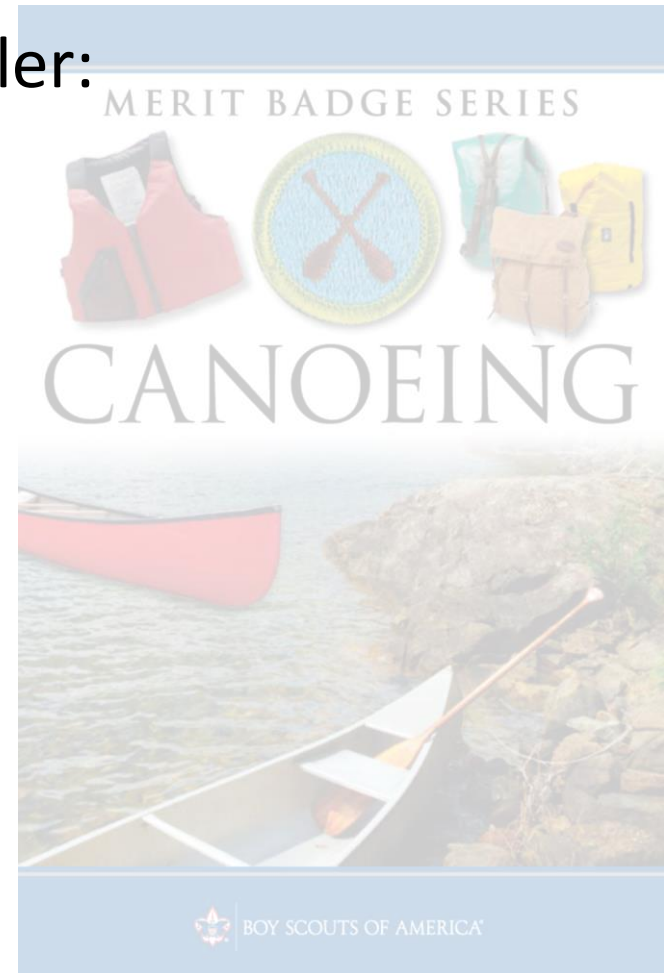
www.youtube.com/watch?v=GpBezA6dh5w

Canoeing Hands On

Requirement 10 – Paddling Strokes

With a companion, use a properly equipped canoe to demonstrate the following paddling strokes as both a bow and stern paddler:

- a. Forward stroke
- b. Backstroke
- c. Draw
 - For stern paddling only:
- d. J-stroke
- e. Pushaway
- f. Forward sweep
- g. Reverse sweep
- h. Rudder stroke
- i. Stern pry

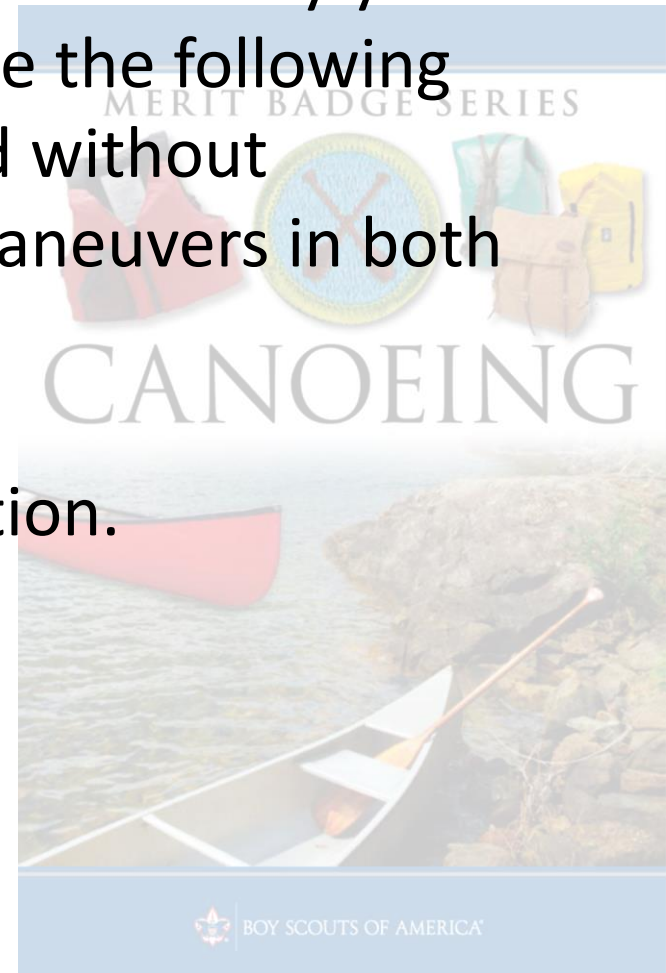


Canoeing Hands On

Requirement 11 – Tandem Maneuvers

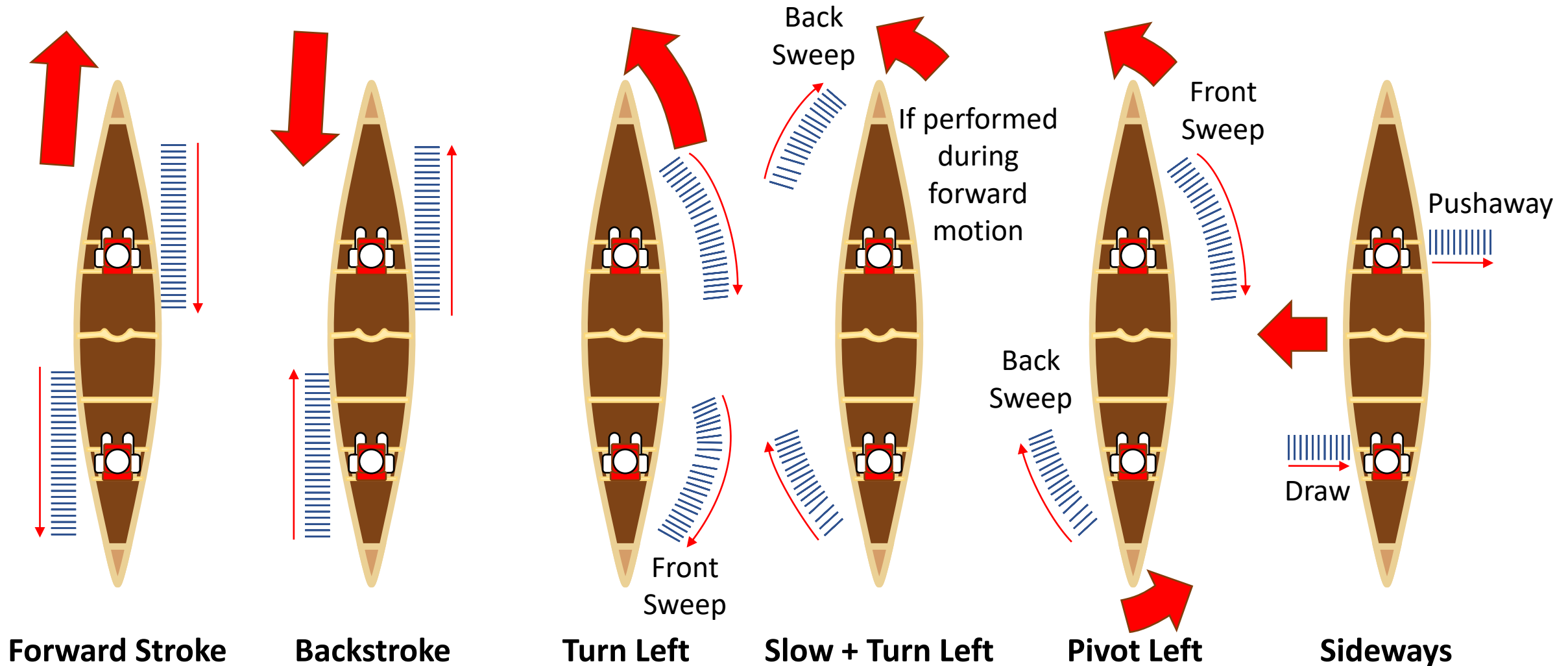
Using the strokes in requirement 10, and in an order determined by your counselor, use a properly equipped canoe to demonstrate the following tandem maneuvers while paddling on opposite sides and without changing sides. Each paddler must demonstrate these maneuvers in both the bow and stern and on opposite paddling sides:

- a. Pivot or spin the canoe in either direction.
- b. Move the canoe sideways or abeam in either direction.
- c. Stop the canoe.
- d. Move the canoe in a straight line for 50 yards.



Canoeing Hands On

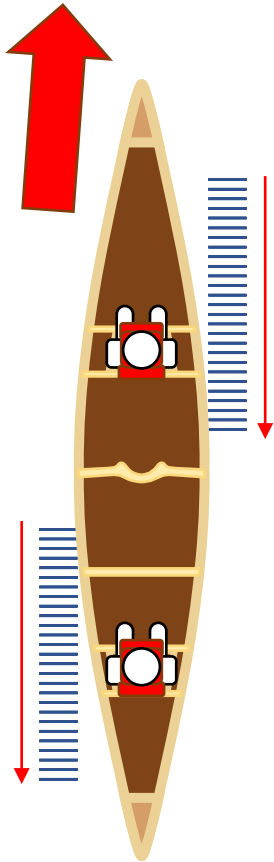
Tandem Paddling Strokes



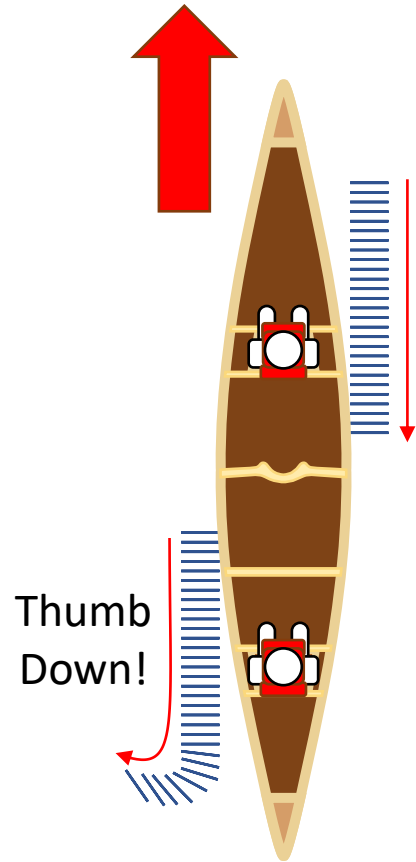
Canoeing Hands On

Tandem Paddling Strokes – Stern Left / Bow Right

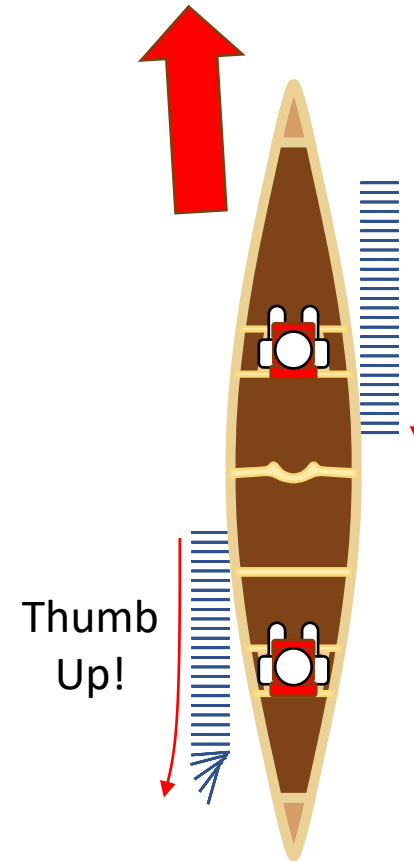
Veers to opposite side of stern strokes



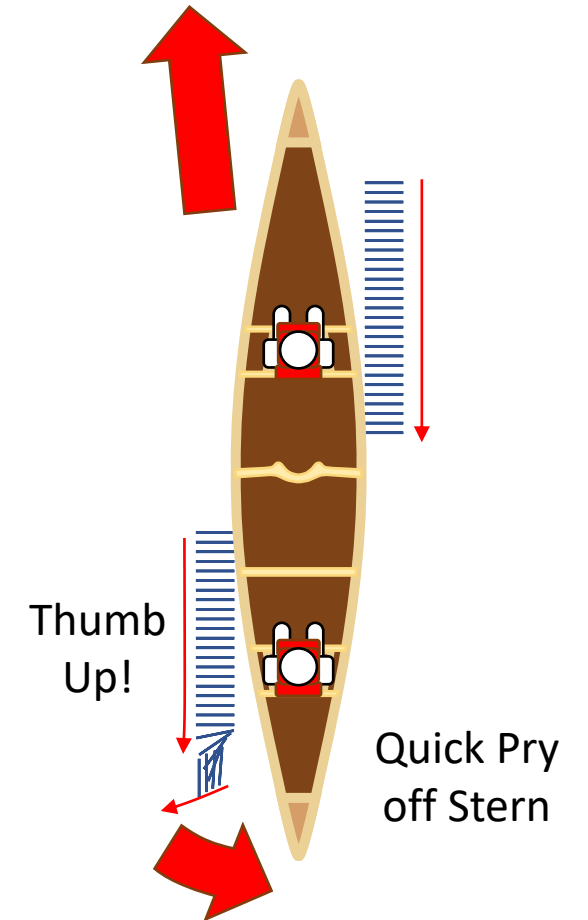
Forward Stroke



J-Stroke



Rudder Stroke

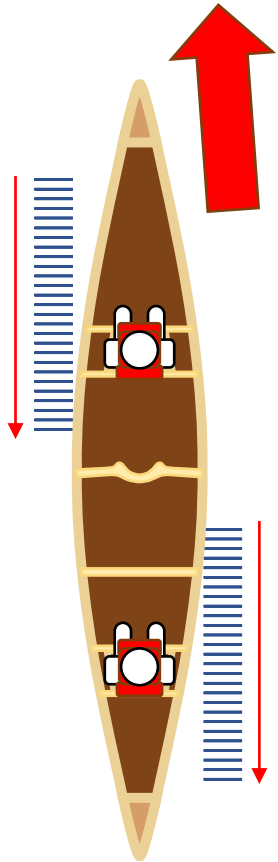


Stern Pry

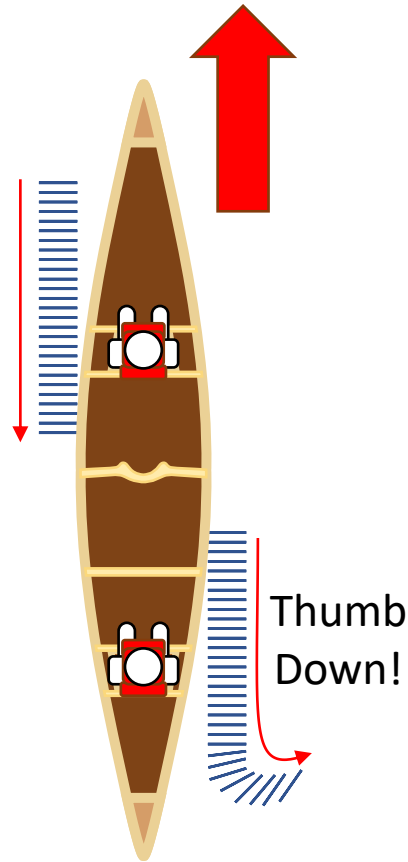
Canoeing Hands On

Tandem Paddling Strokes – Stern Right / Bow Left

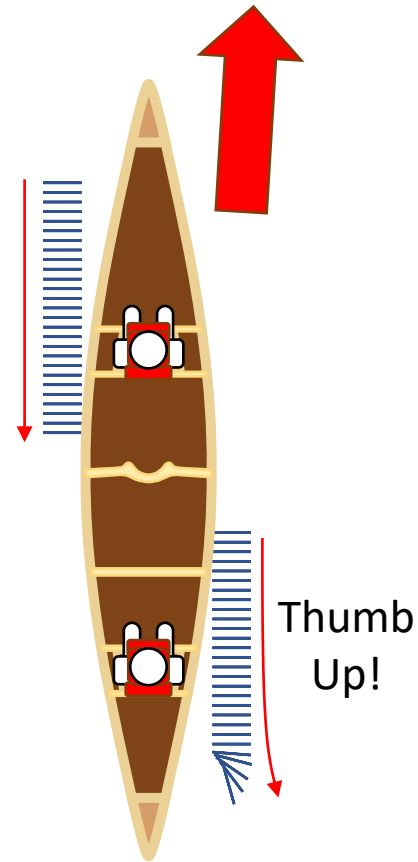
Veers to opposite side of stern strokes



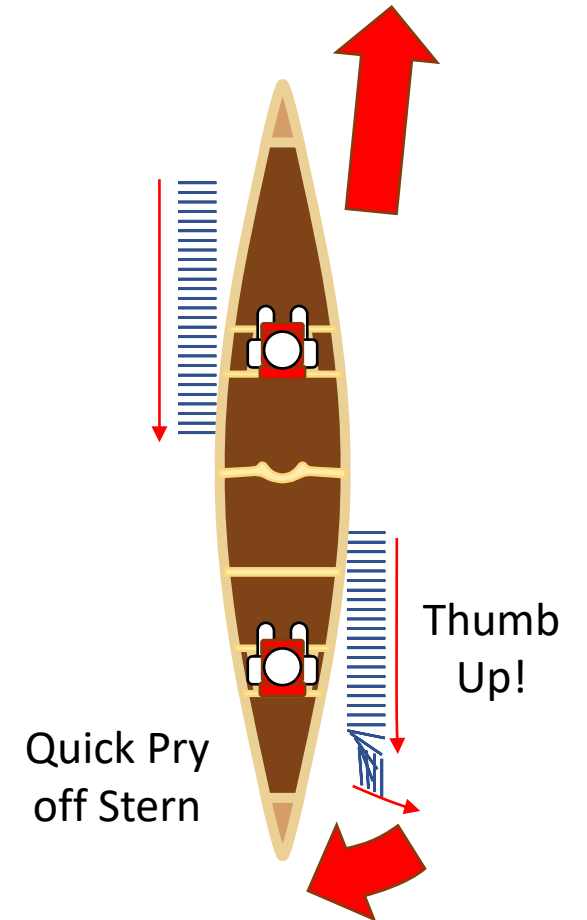
Forward Stroke



J-Stroke

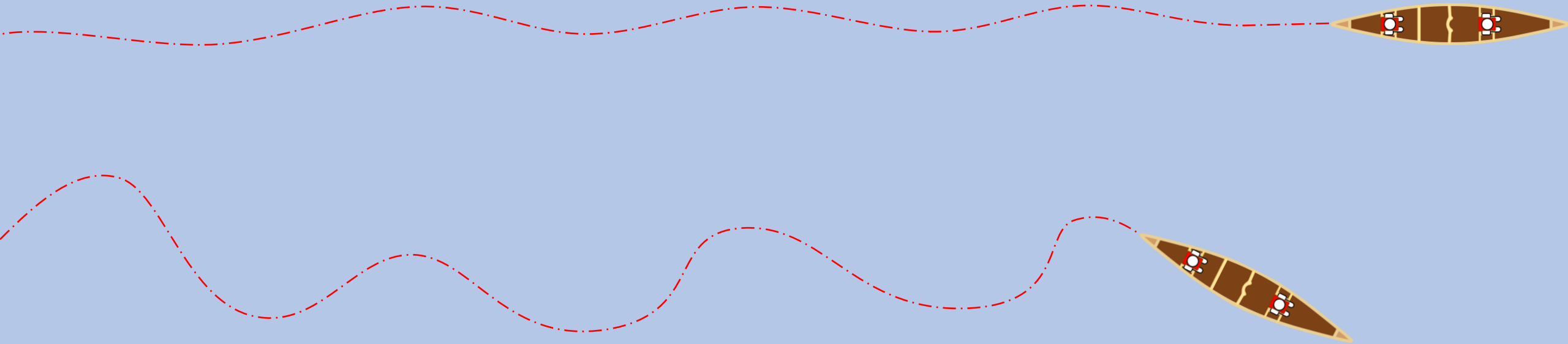


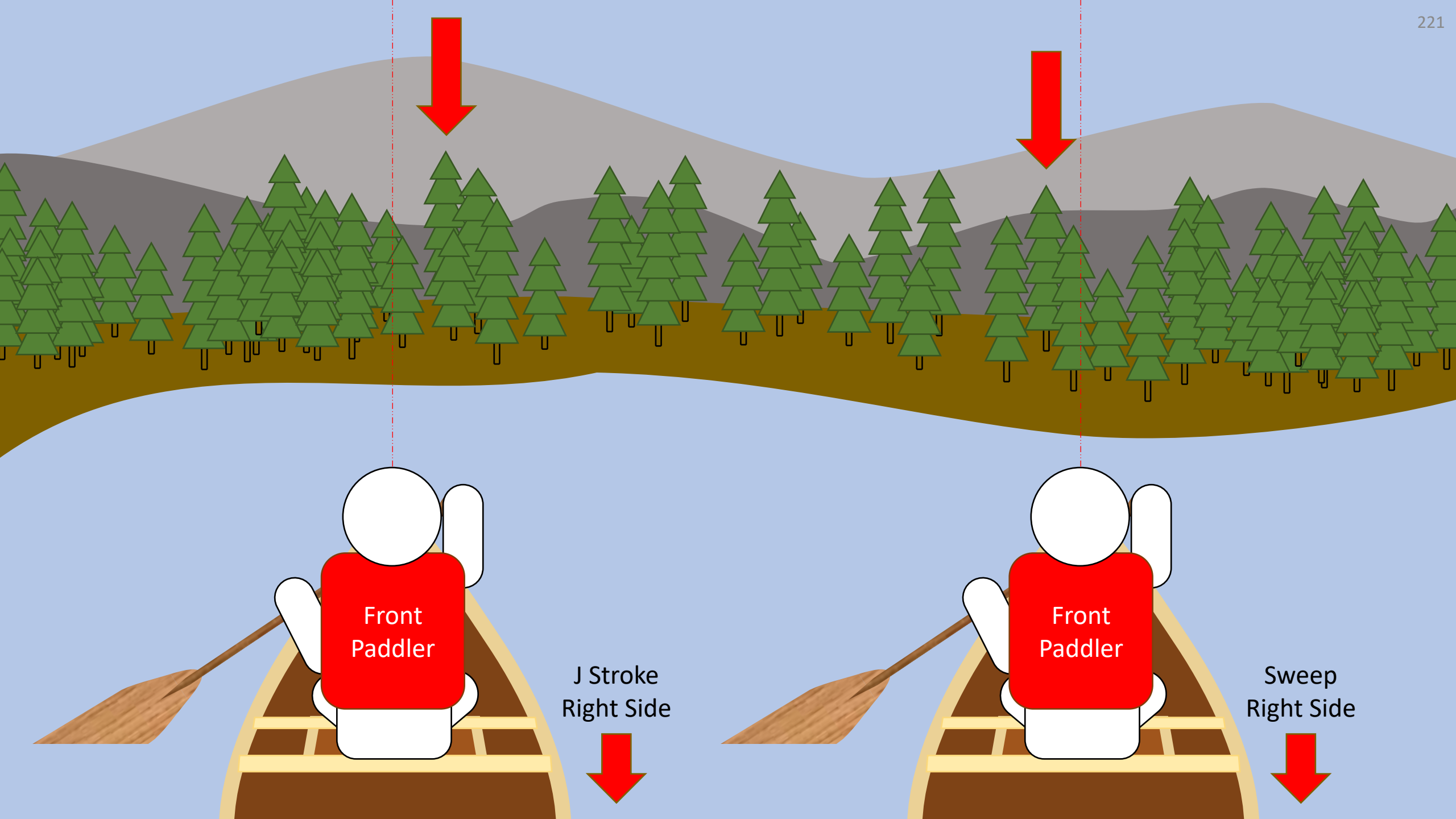
Rudder Stroke



Stern Pry

Canoe Zip Zag





Canoeing Hands On

Paddling Strokes



youtube.com/watch?v=fGiWzRrM-us

Canoeing Hands On

Paddling Strokes – J Stroke

Thumb
Down!



youtube.com/watch?v=4wrh4bC2_Wc

Canoeing Hands On

Paddling Strokes – Rudder Stroke

Thumb Up!



youtube.com/watch?v=PHTcm3DSvnM

Canoeing Hands On

Paddling Strokes – Stern Pry

Thumb
UP!



youtube.com/watch?v=0ANHezCD0gQ

Canoeing Hands On

Requirement 12b – Solo – Strokes

Use a properly equipped canoe to demonstrate solo canoe handling:

Using a single-blade paddle and paddling only on one side, demonstrate proper form and use of the:

Forward stroke

Backstroke

Draw stroke

Pushaway stroke

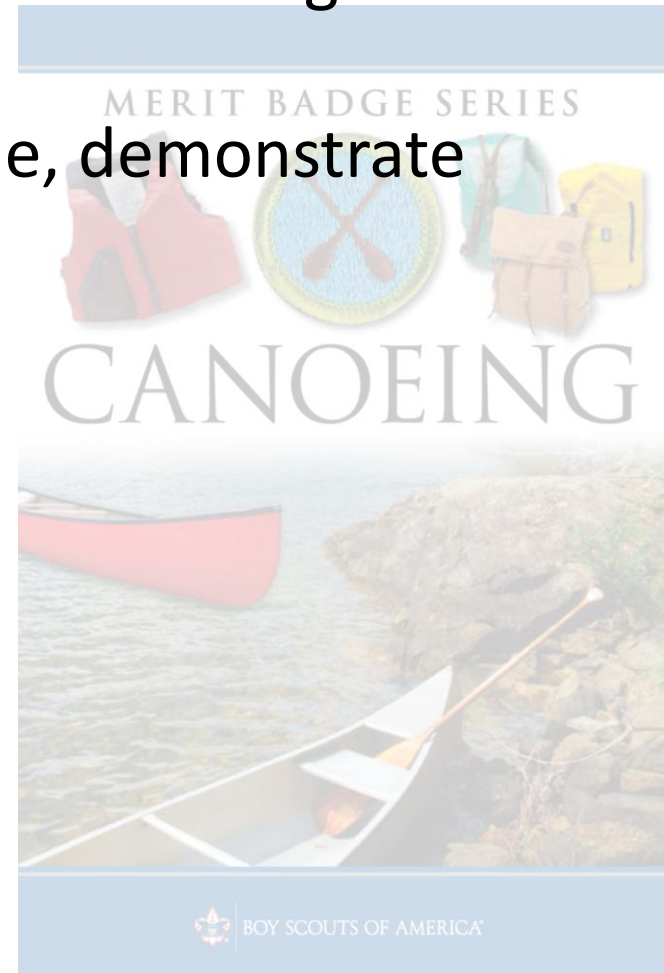
Forward sweep

Reverse sweep

J-stroke

Rudder stroke

Repeat while paddling on the other side.



Canoeing Hands On

Requirement 12c – Solo – Paddling Demo

Use a properly equipped canoe to demonstrate solo canoe handling:

Using a single-blade paddle and paddling only on one side, demonstrate proper form and use of a combination of a:

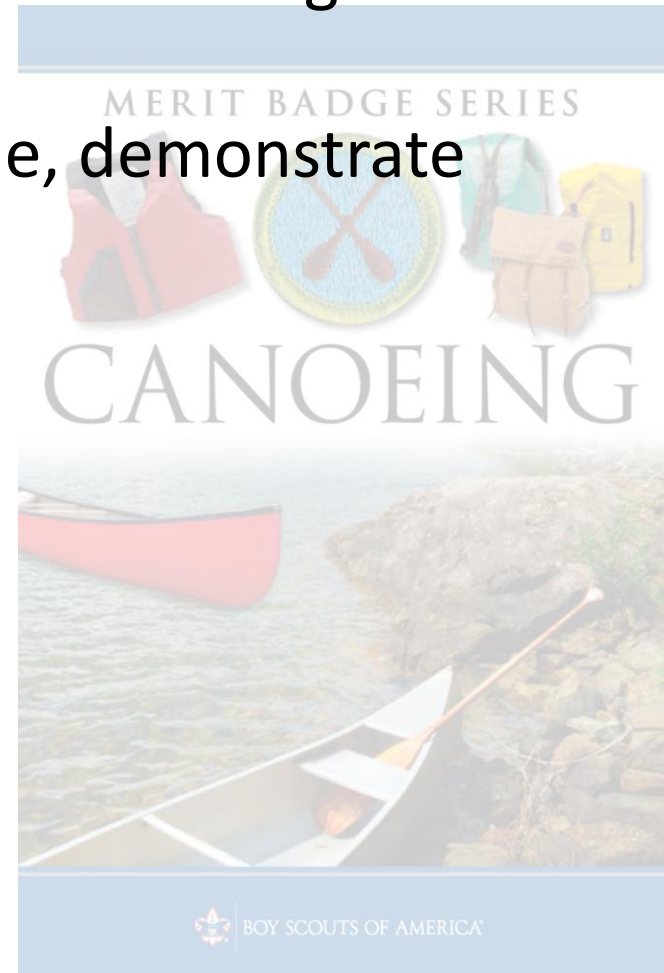
Forward stroke

Rudder stroke

Stern pry

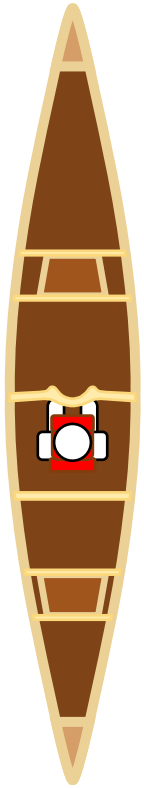
by canoeing to a target 50 yards away.

Repeat while paddling on the other side.

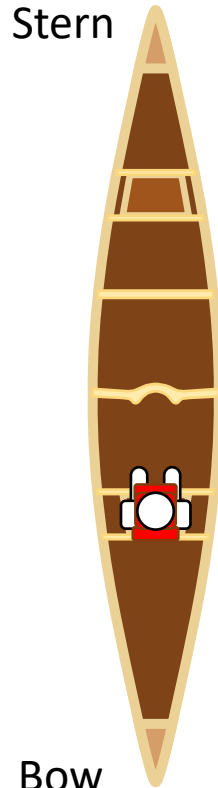


Canoeing Hands On

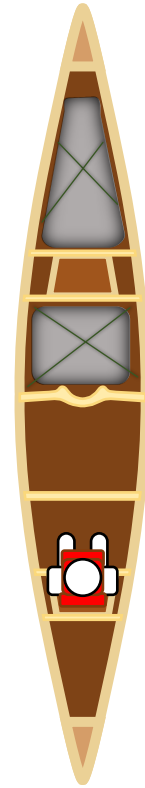
Solo Sitting Options



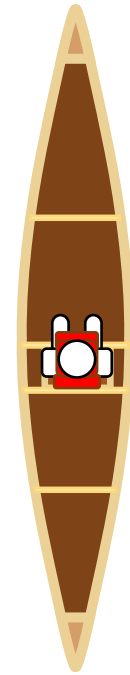
Middle Position



Facing Stern



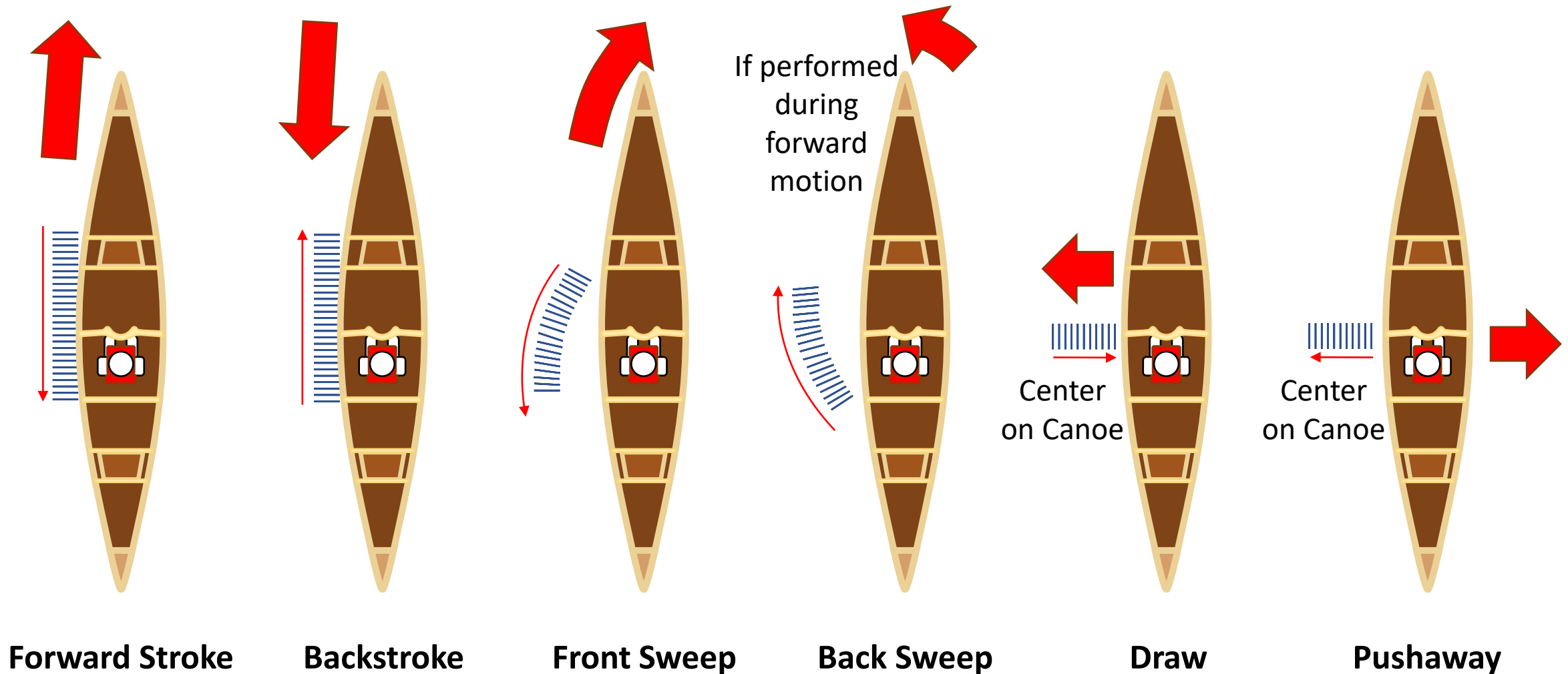
Heavy Gear Front



Solo Canoe

Canoeing Hands On

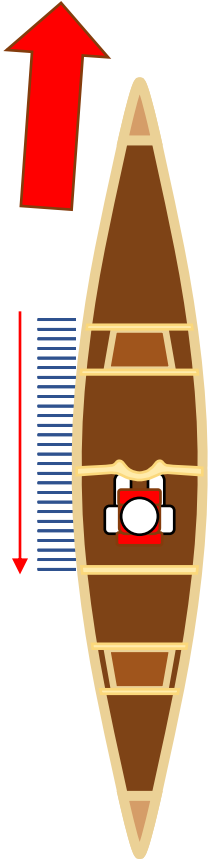
Solo Paddling Strokes – Left Side



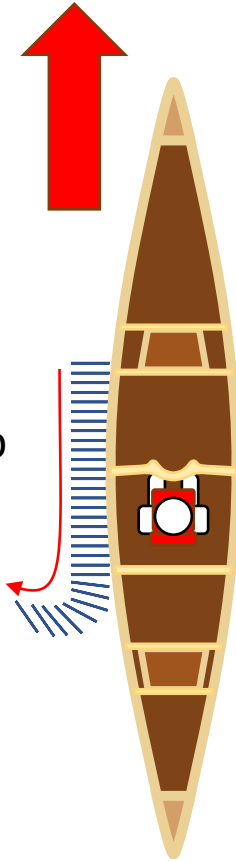
Canoeing Hands On

Solo Paddling Strokes – Left Side

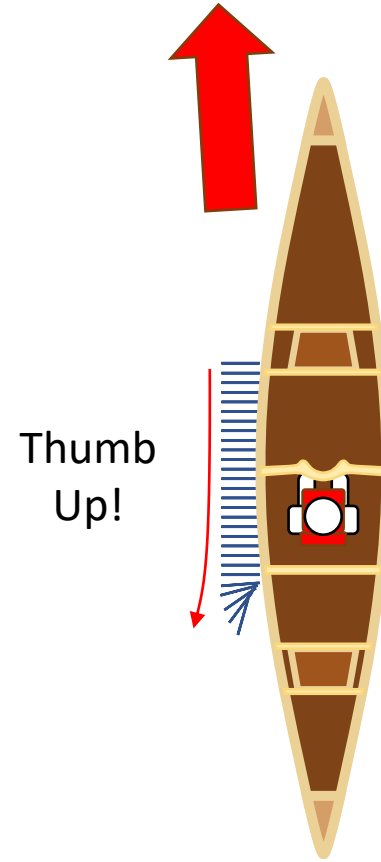
Veers to opposite side



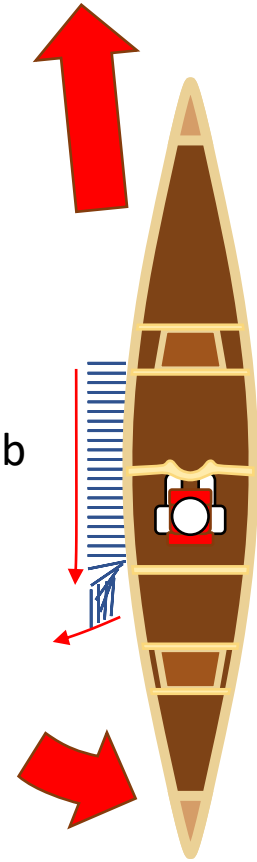
Forward Stroke



J-Stroke



Rudder Stroke

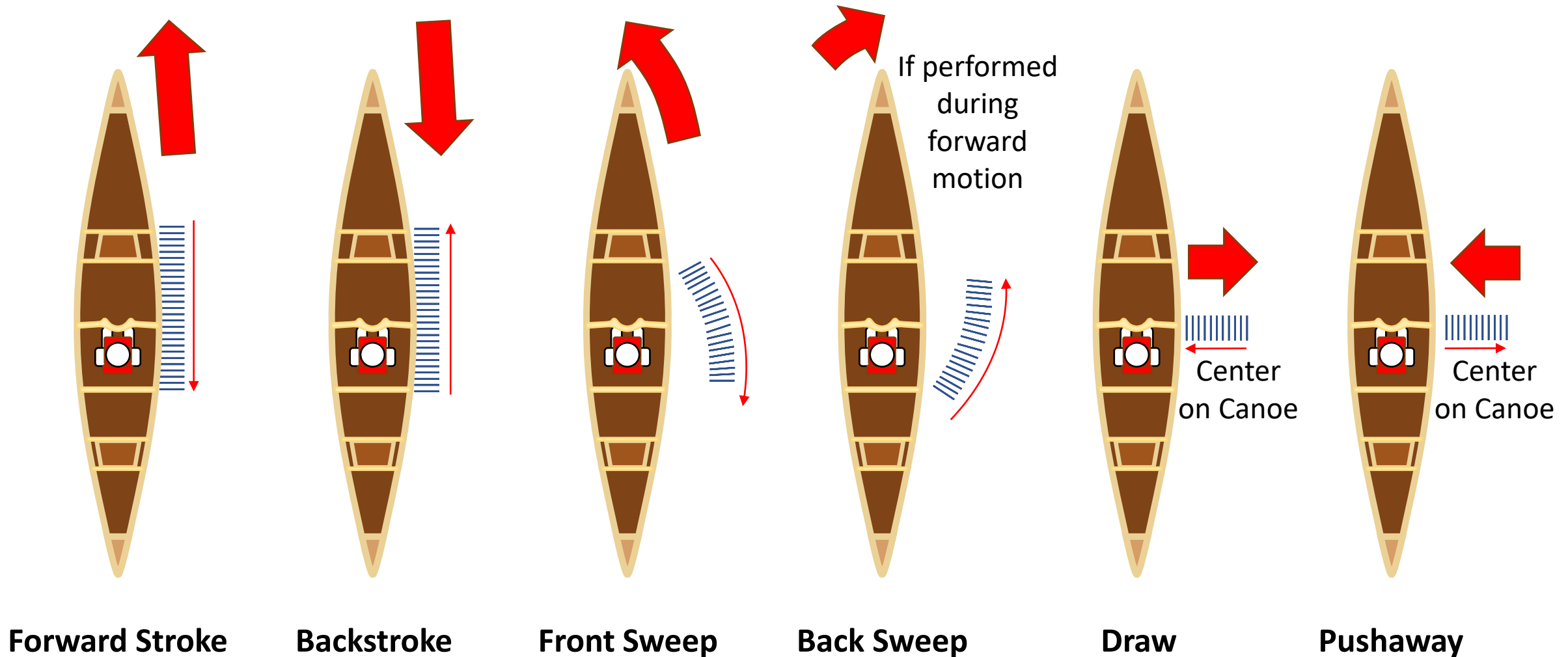


Stern Pry

Quick Pry
off Stern

Canoeing Hands On

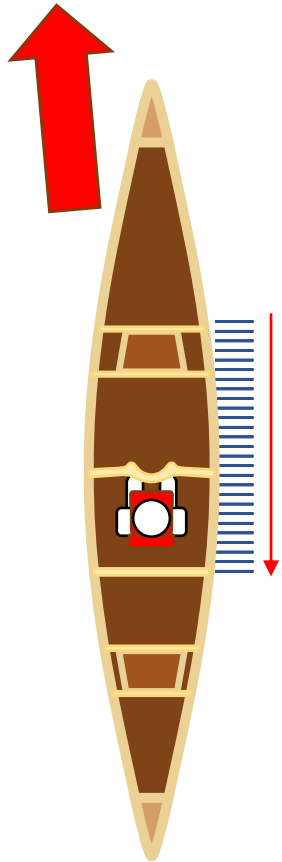
Solo Paddling Strokes – Right Side



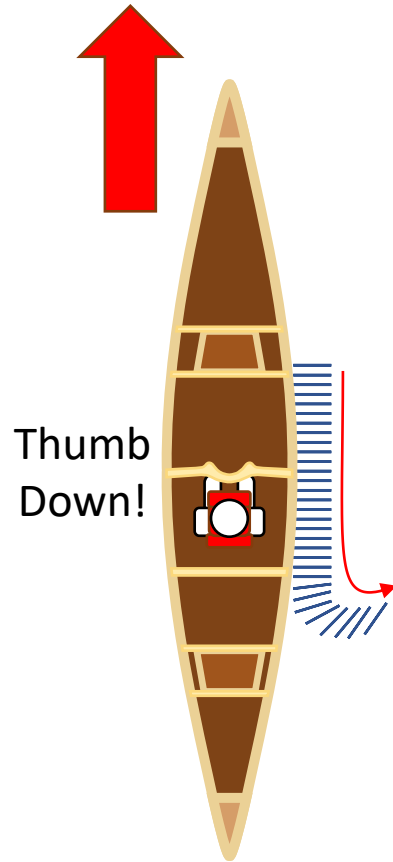
Canoeing Hands On

Solo Paddling Strokes – Right Side

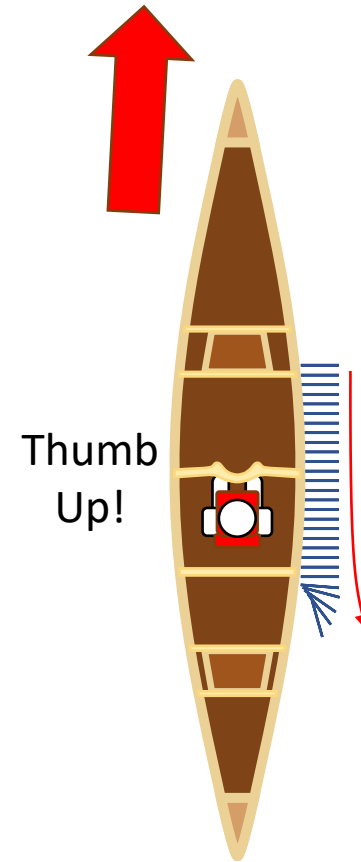
Veers to opposite side



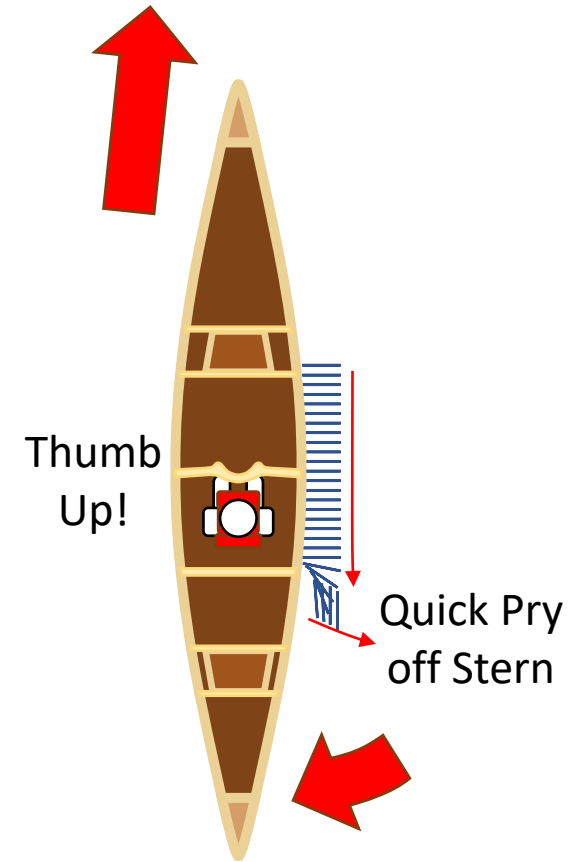
Forward Stroke



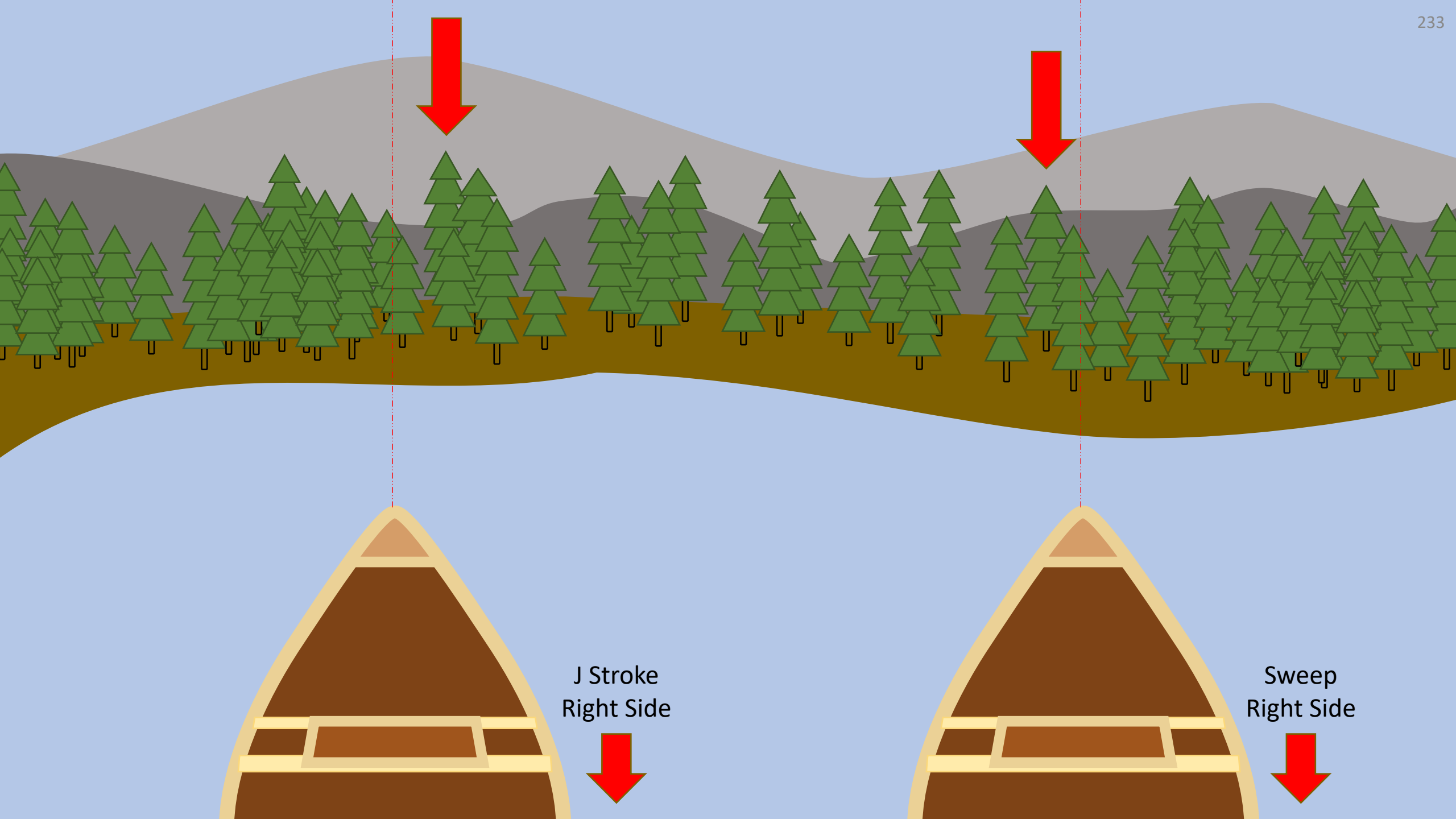
J-Stroke



Rudder Stroke



Stern Pry



Canoeing Hands On

Solo Strokes – Forward Stroke



www.youtube.com/watch?v=SJI_jNbn2Hs

Canoeing Hands On

Solo Strokes – Rudder Stroke



www.youtube.com/watch?v=PHTcm3DSvnM

Canoeing Hands On

Solo Strokes – Stern Pry



www.youtube.com/watch?v=0ANHezCD0gQ

Canoeing Hands On

Requirement 9a –Exit and Enter Canoe in Deep Water

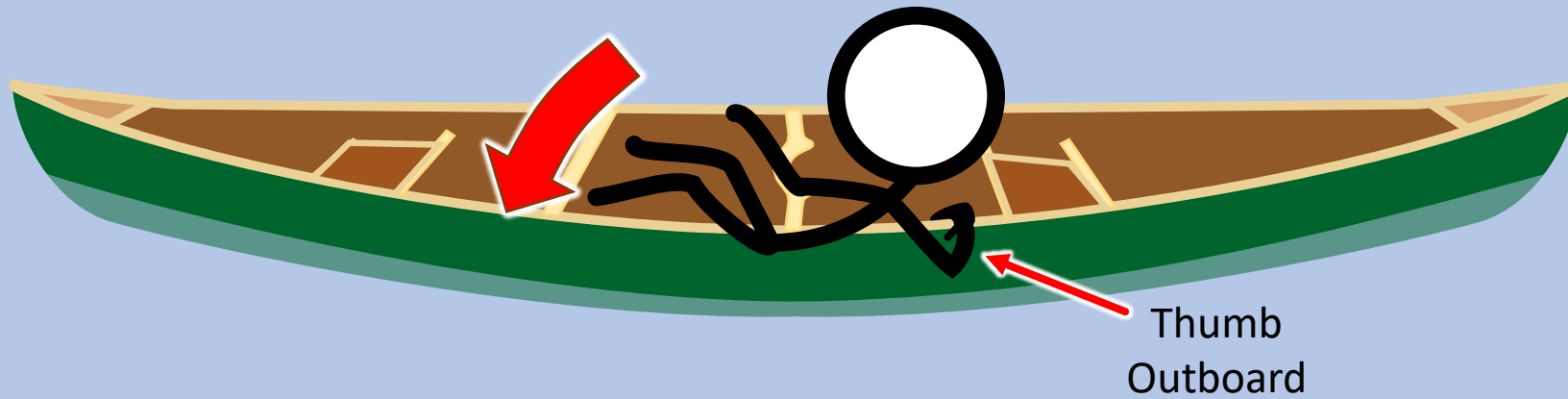
With a companion, use a properly equipped canoe to demonstrate the following:

In deep water, exit the canoe and get back in without capsizing.



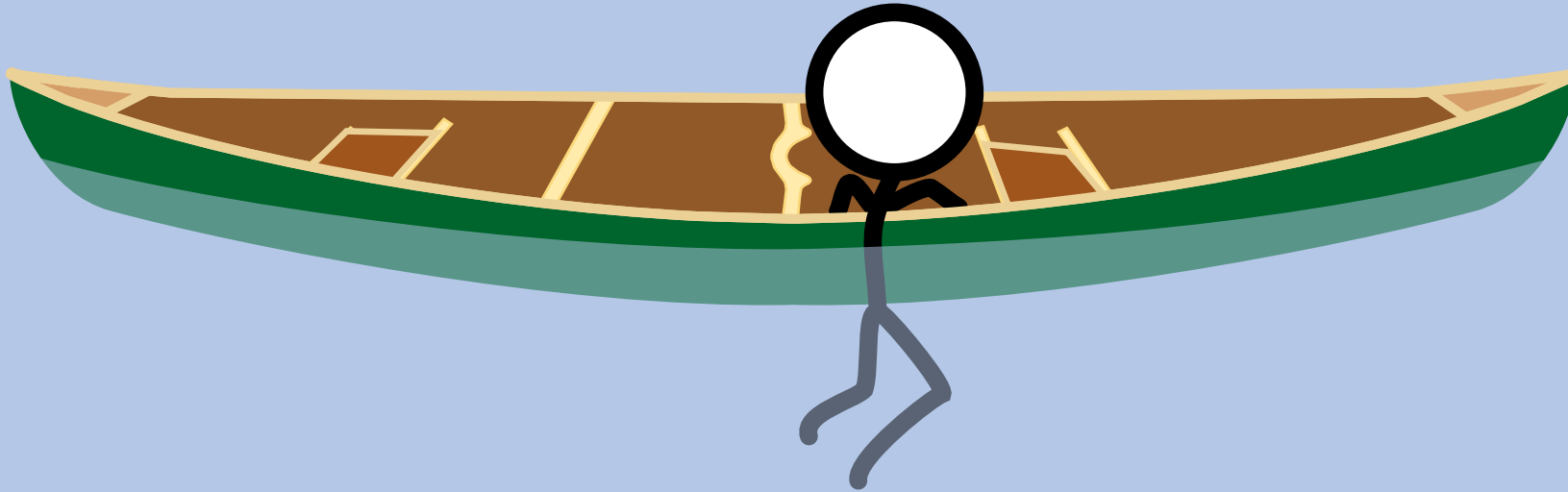
Canoeing Hands On

Exit Canoe in Deep Water



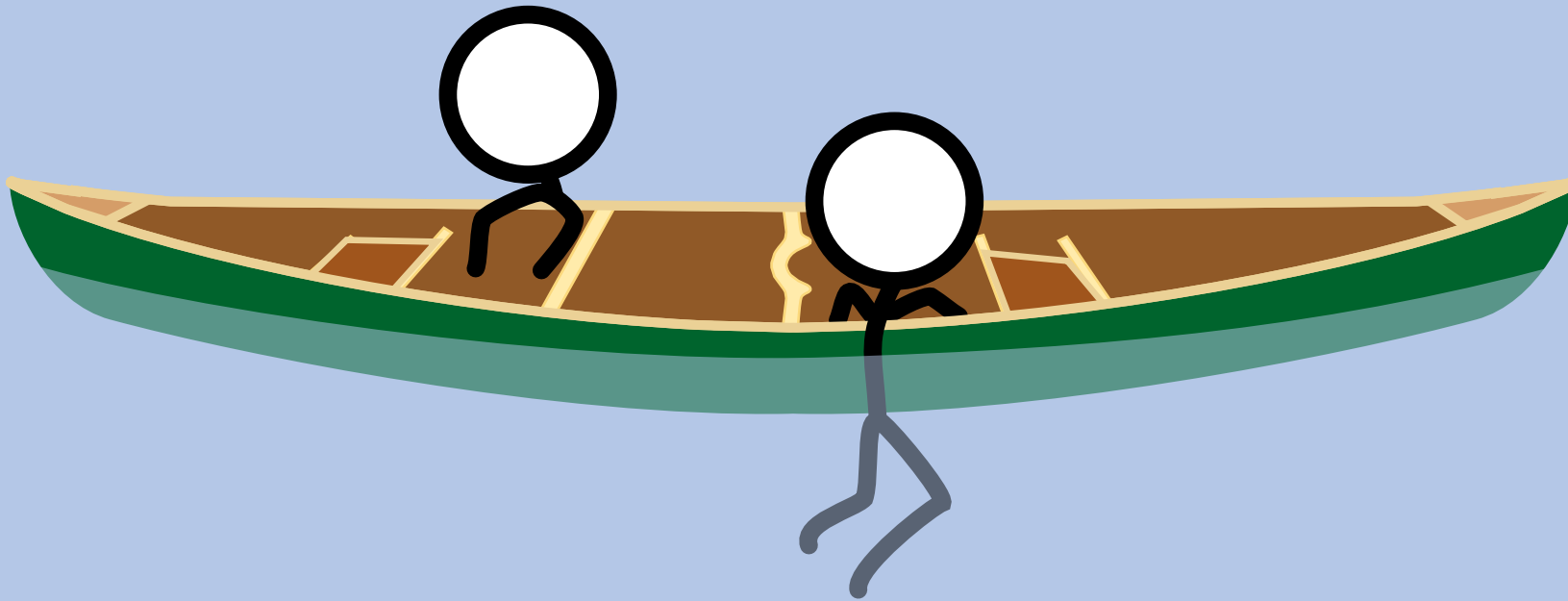
Canoeing Hands On

Enter Canoe in Deep Water



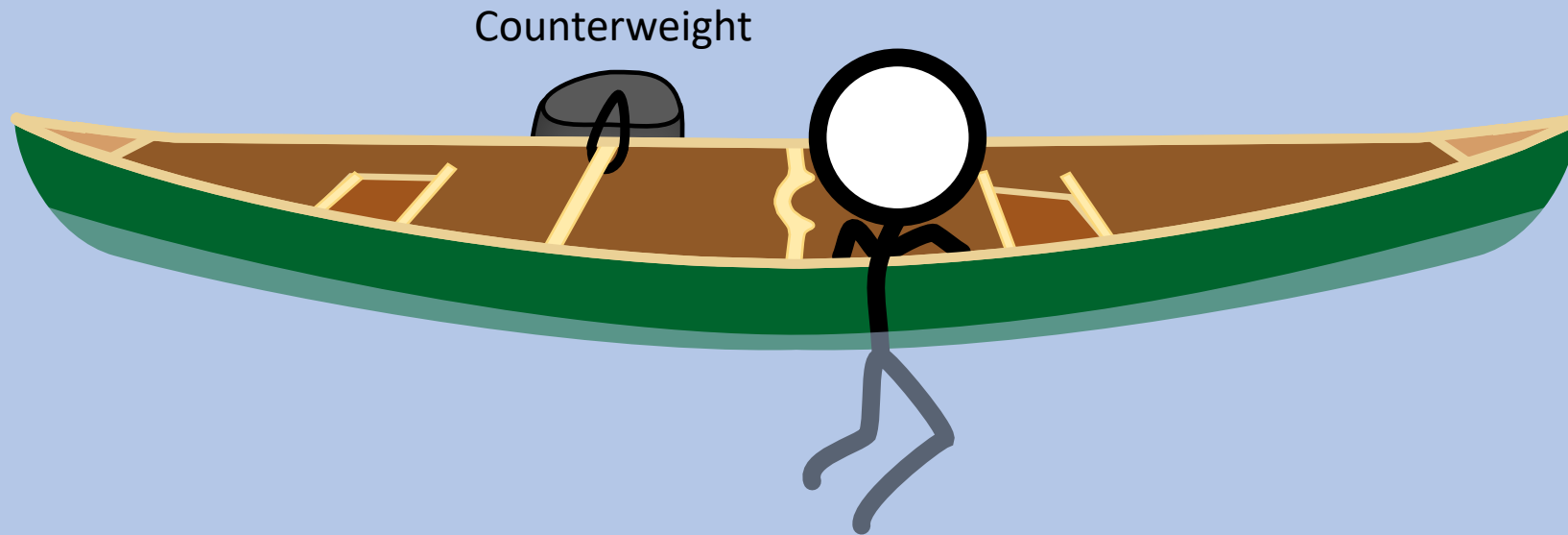
Canoeing Hands On

Enter Canoe in Deep Water – Double Entry



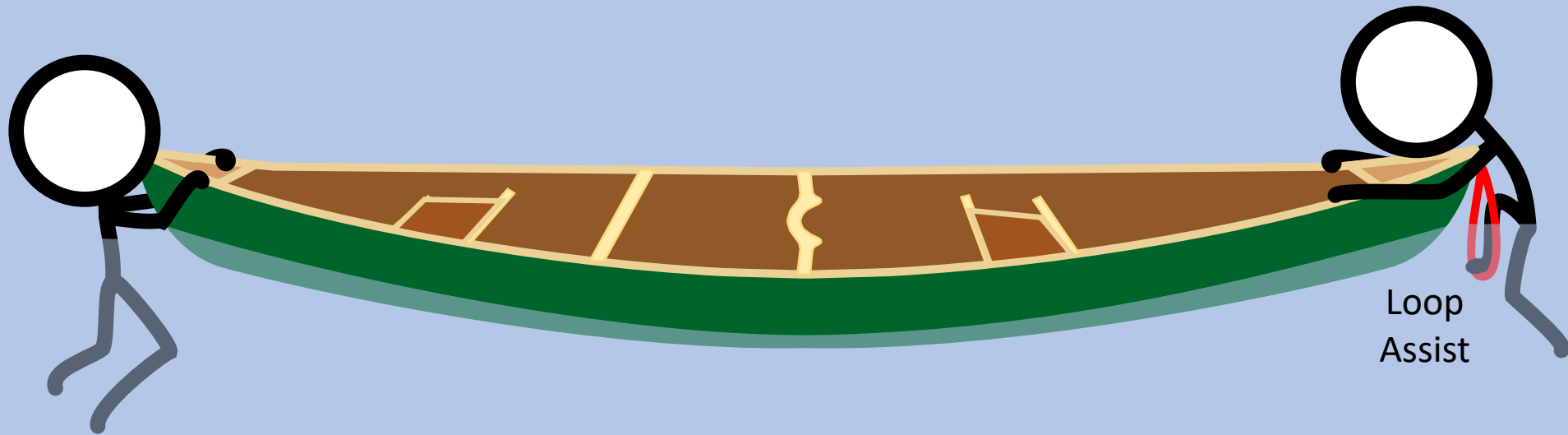
Canoeing Hands On

Enter Canoe in Deep Water – Counterweight Entry



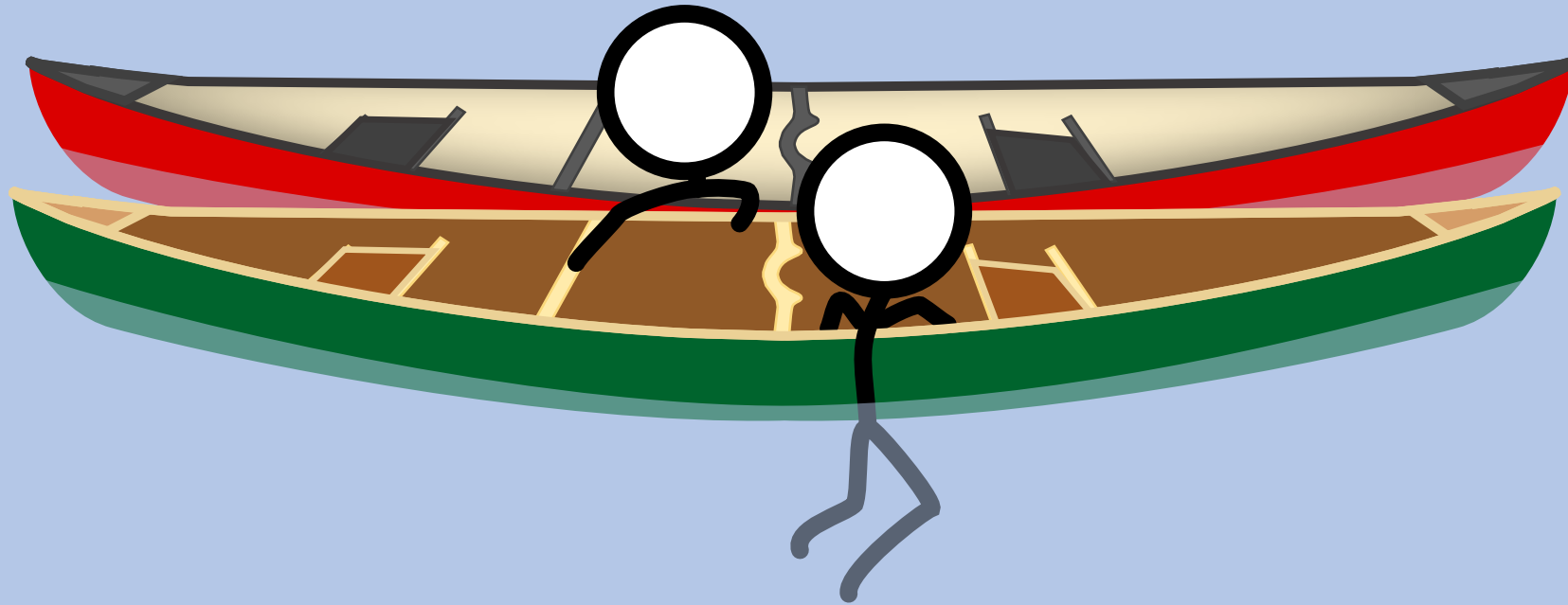
Canoeing Hands On

Enter Canoe in Deep Water – End Entry



Canoeing Hands On

Enter Canoe in Deep Water – Canoe Assisted Entry



Canoeing Hands On

Tandem Reentry



www.youtube.com/watch?v=g3SR1WoDA0

Canoeing Hands On

Shakeout and Reentry



www.youtube.com/watch?v=ERnexMUn2sY

Canoeing Hands On

Requirement 9b – Capsize a Canoe

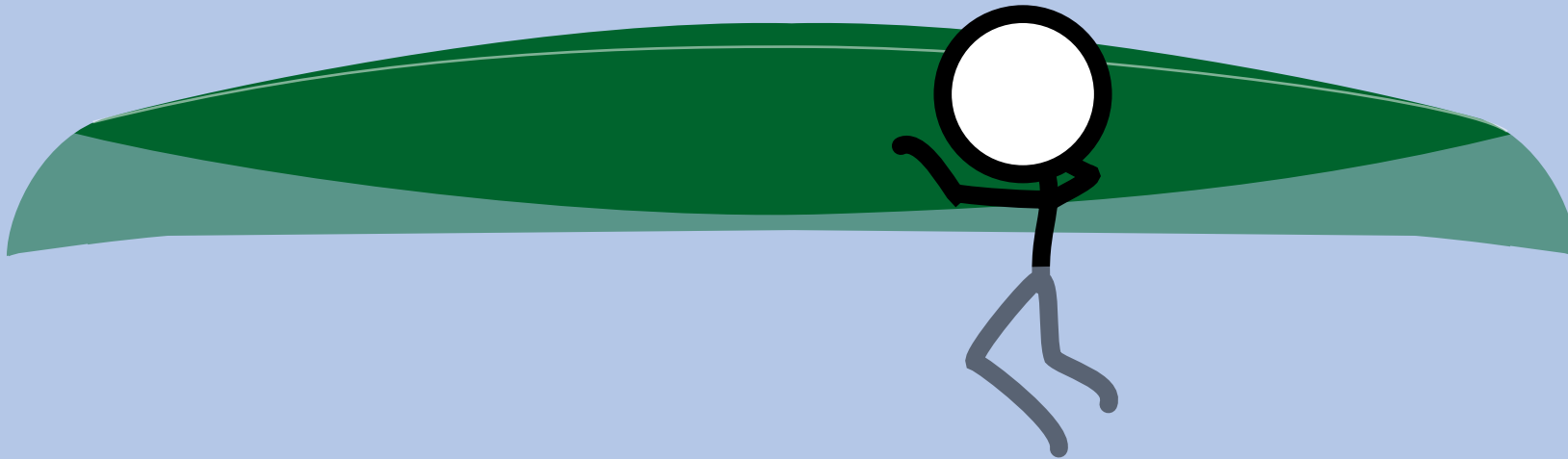
With a companion, use a properly equipped canoe to demonstrate the following:

Safely perform a controlled capsizing of the canoe and demonstrate how staying with a capsized canoe will support both paddlers.



Canoeing Hands On

Stay with Capsized Canoe



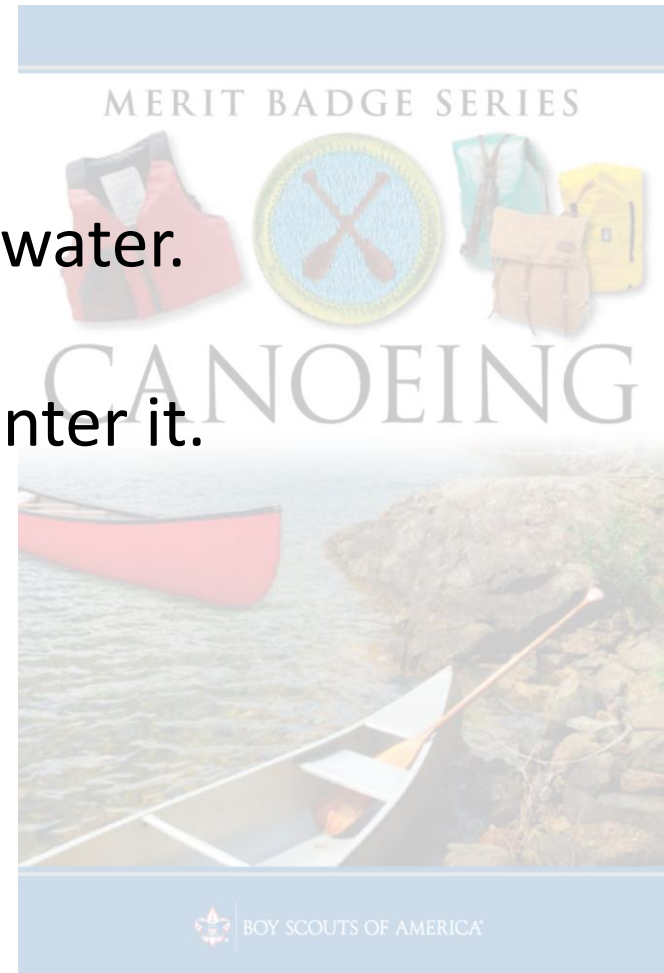
Canoeing Hands On

Requirement 9c – Move Swamped Canoe

With a companion, use a properly equipped canoe to demonstrate the following:

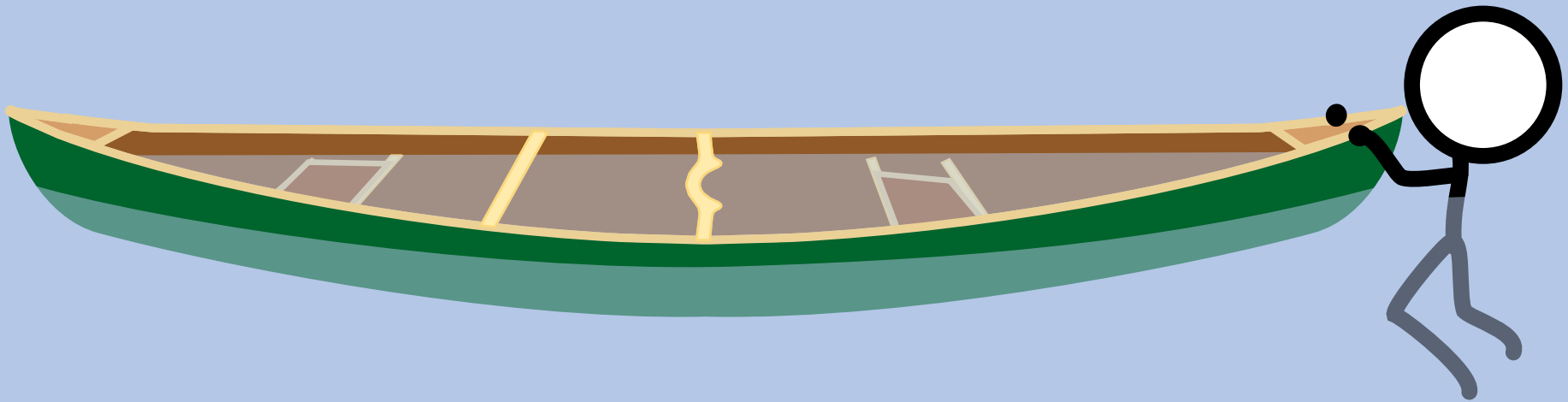
Swim, tow, or push a swamped canoe 50 feet to shallow water.

In the shallow water, empty the swamped canoe and reenter it.



Canoeing Hands On

Move Swamped Canoe

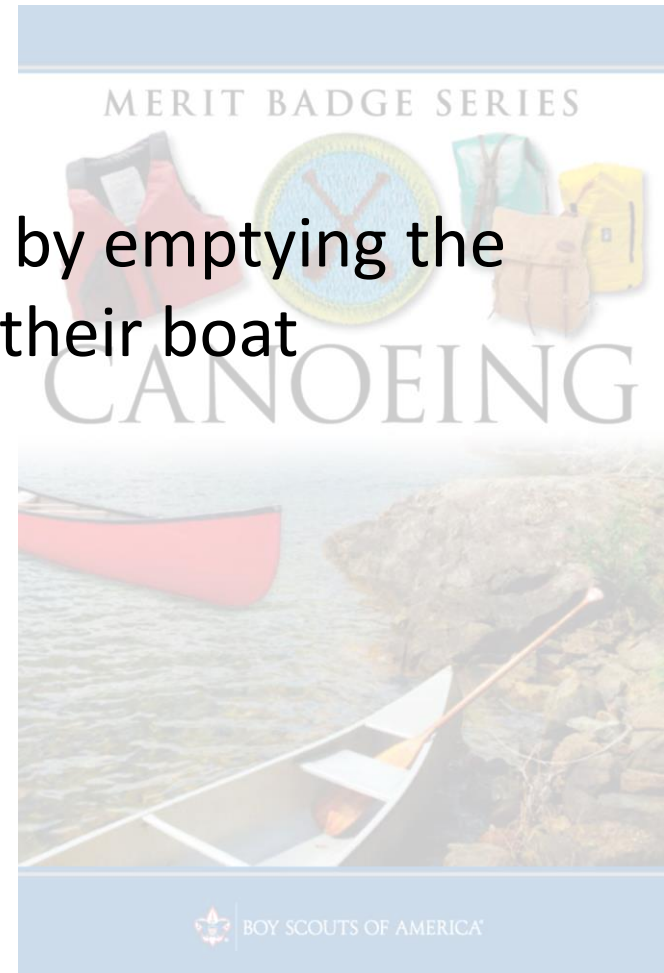


Canoeing Hands On

Requirement 9d - Rescue a Swamped Canoe

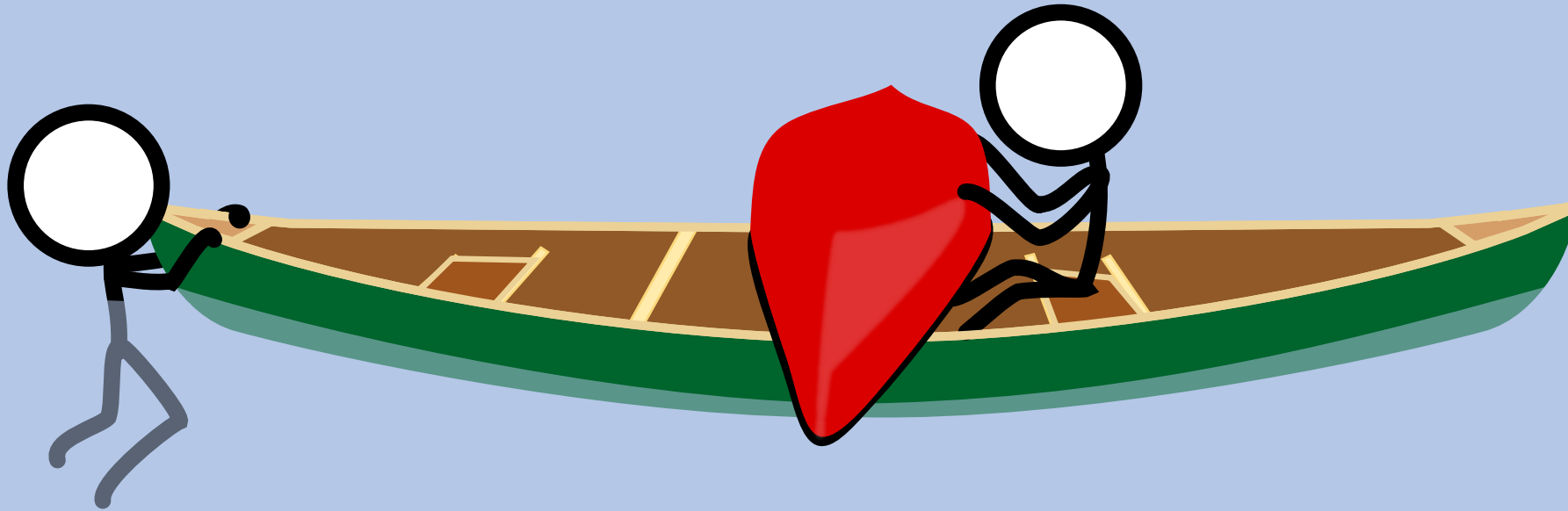
With a companion, use a properly equipped canoe to demonstrate the following:

In deep water, rescue a swamped canoe and its paddlers by emptying the swamped canoe and helping the paddlers safely reenter their boat without capsizing.



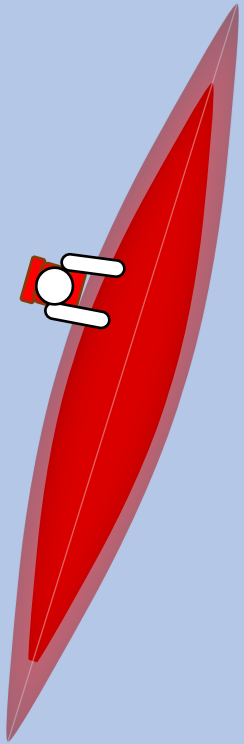
Canoeing Hands On

Canoe over Canoe aka T-Rescue



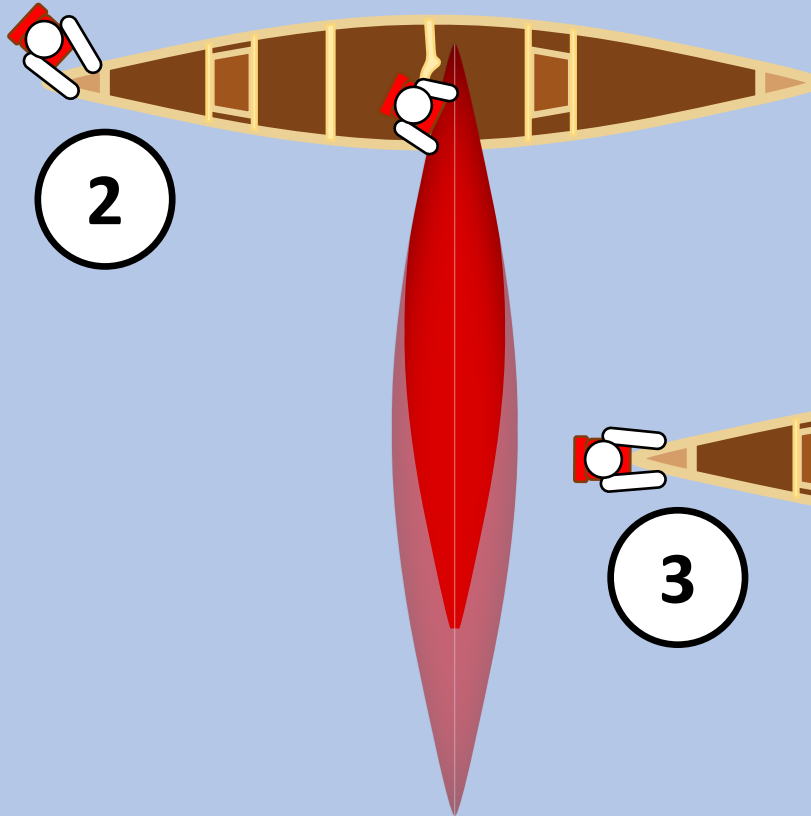
Lineup rescue canoe 90°

1



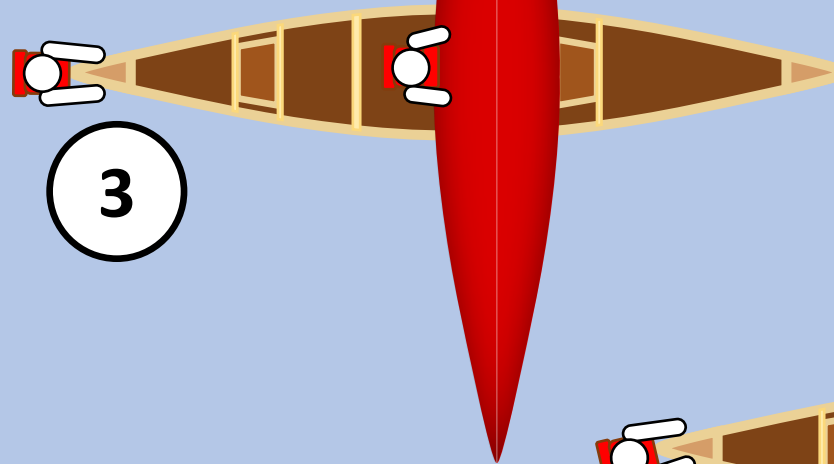
Pull canoe over gunwale

2



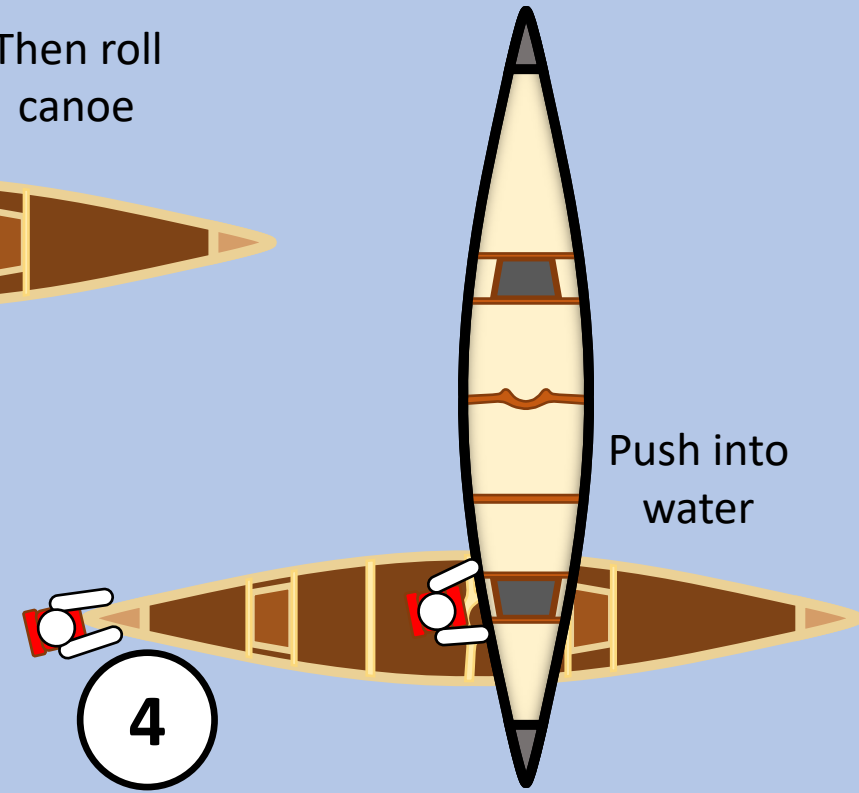
Center
rescued
canoe

3



Then roll
canoe

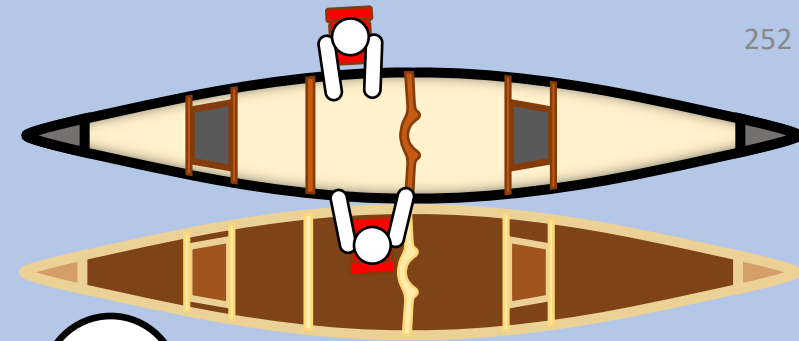
4



Push into
water

5

Assist reentry

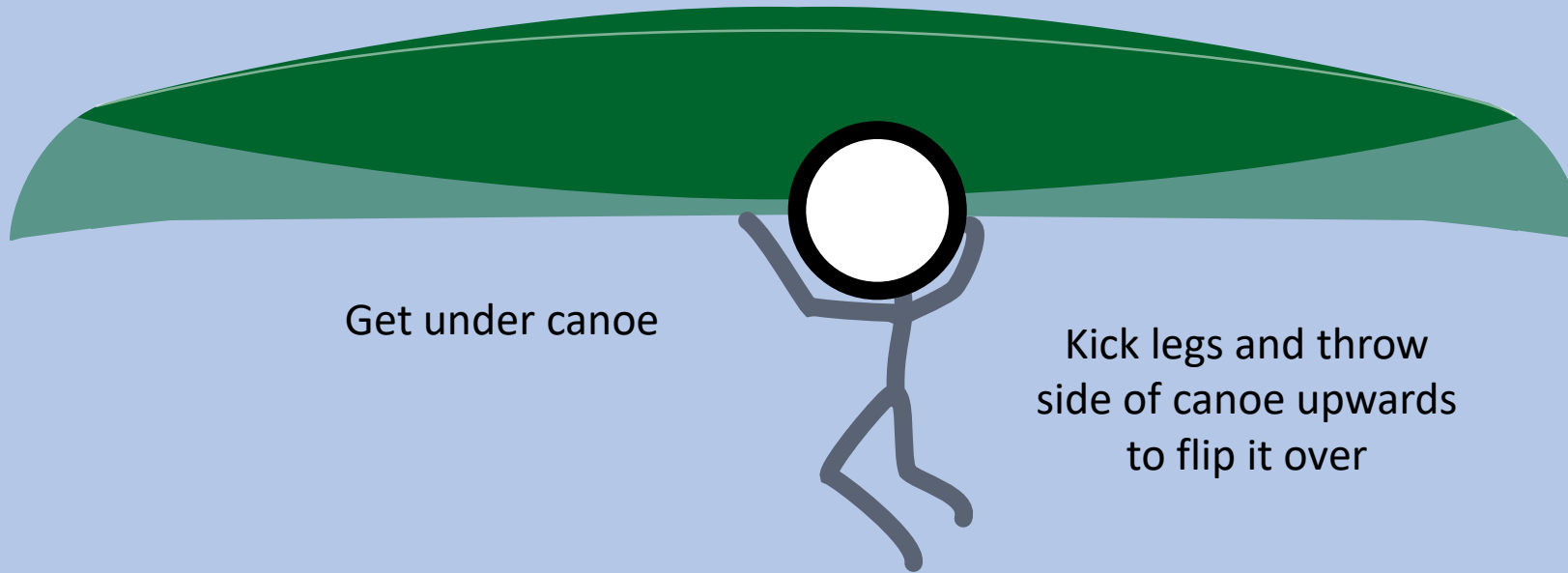


Canoeing Hands On

Capistrano Flip

It is possible to right a canoe on your own

Requires brute strength, quickness and timing



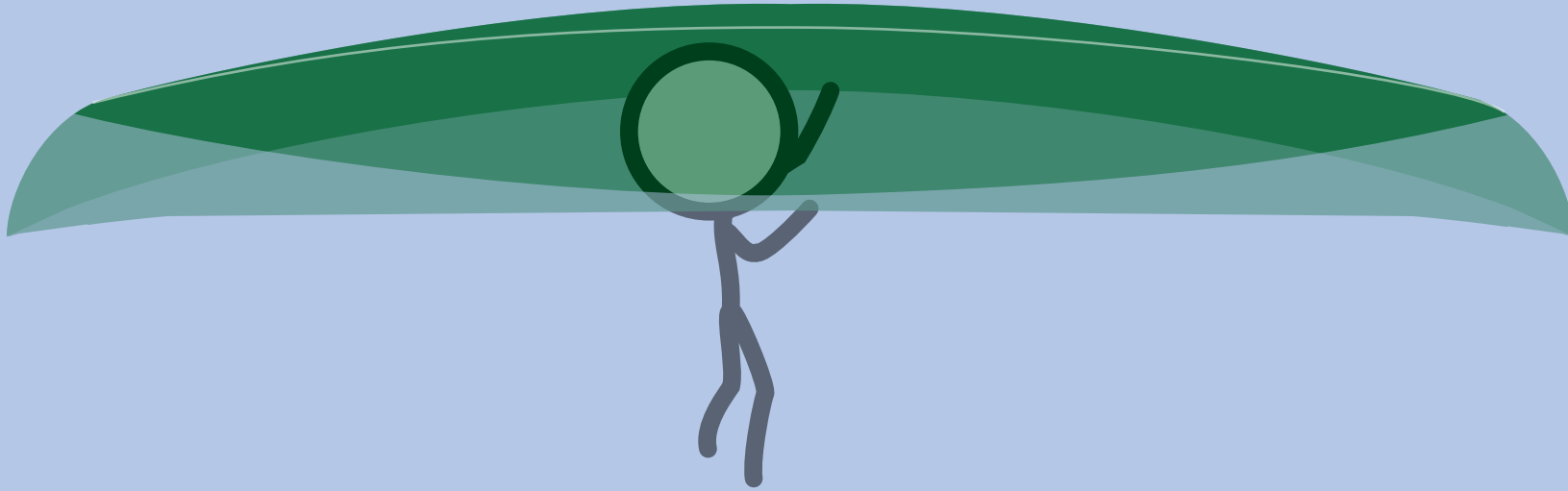
Get under canoe

Kick legs and throw side of canoe upwards to flip it over

Canoeing Hands On

Capistrano Flip

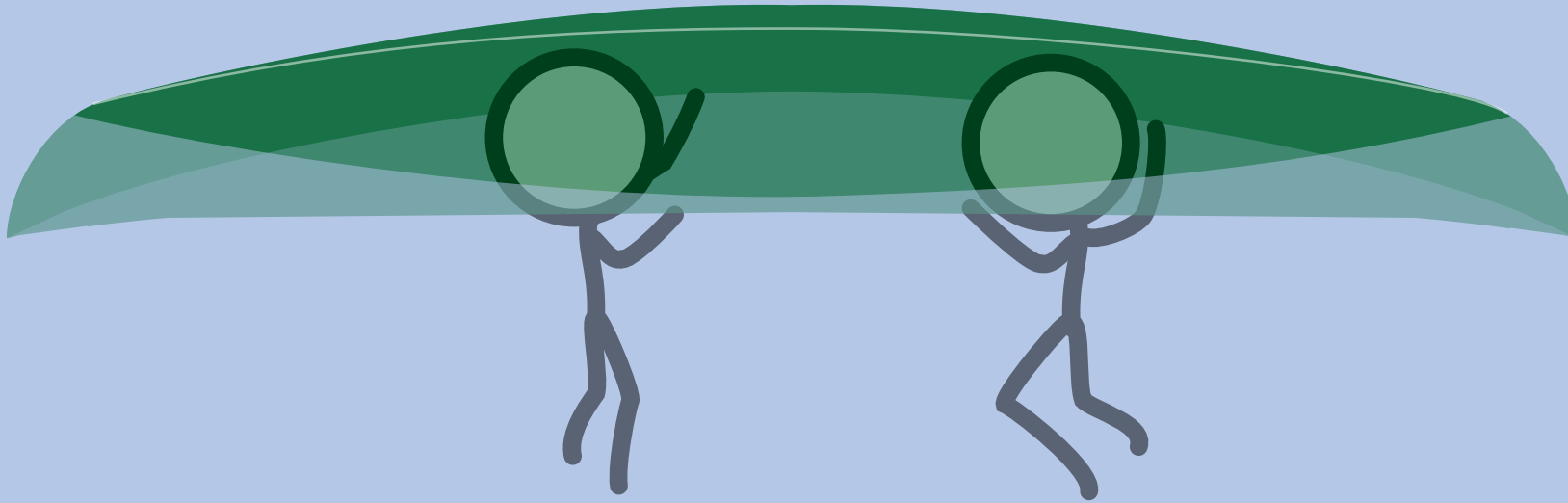
Can be Performed Solo from underneath



Canoeing Hands On

Capistrano Flip

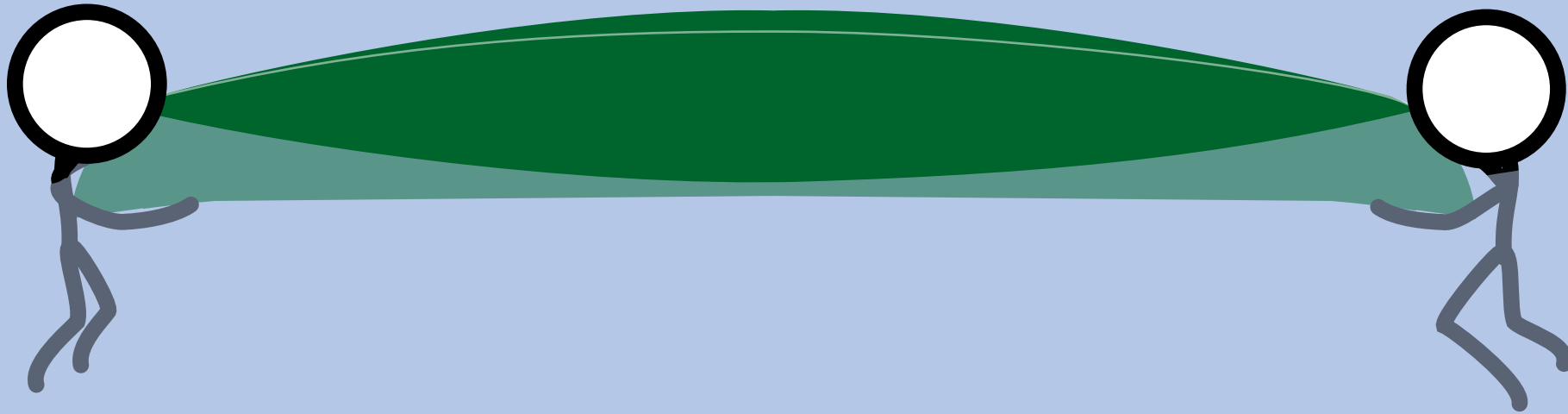
Best done with TWO people

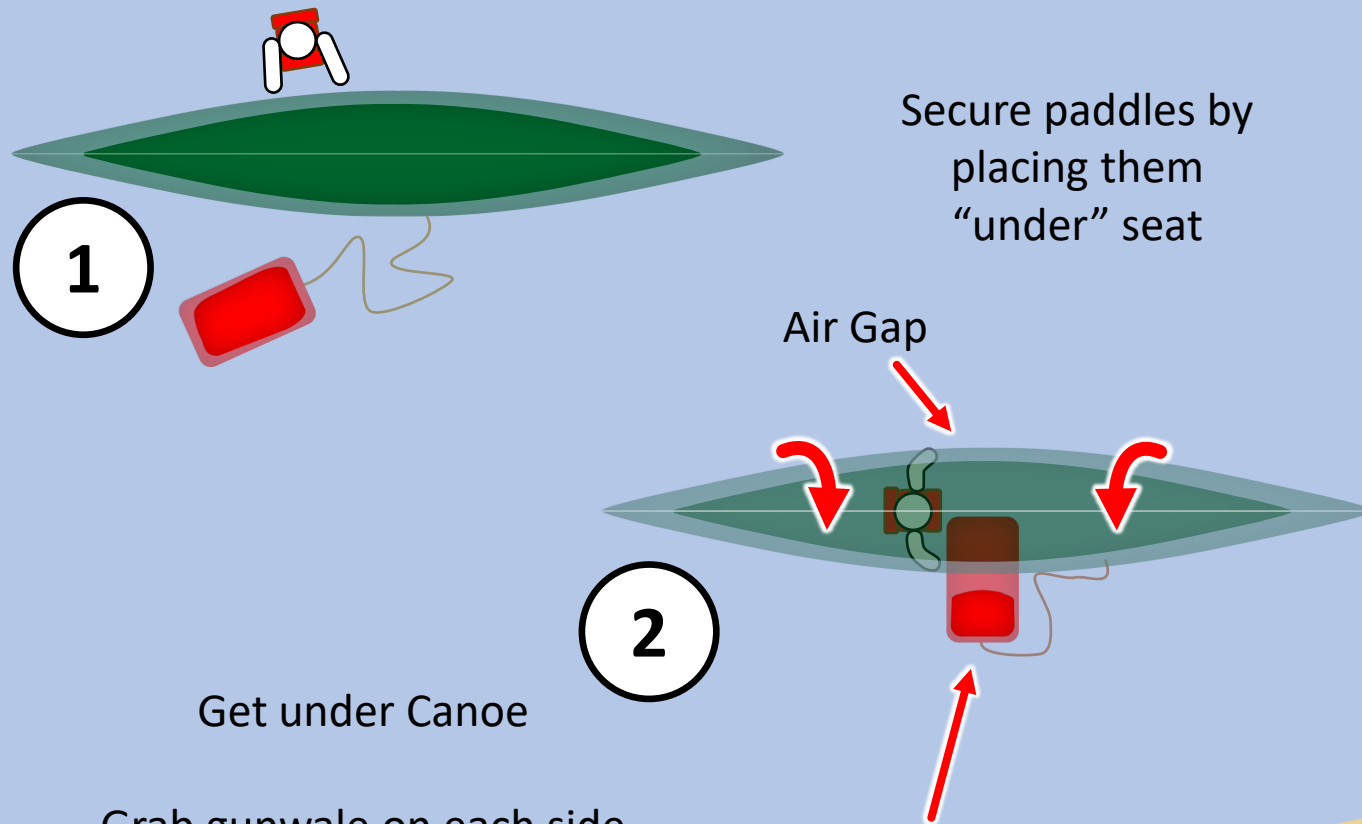


Canoeing Hands On

Capistrano Flip

Can be performed on ends with two people

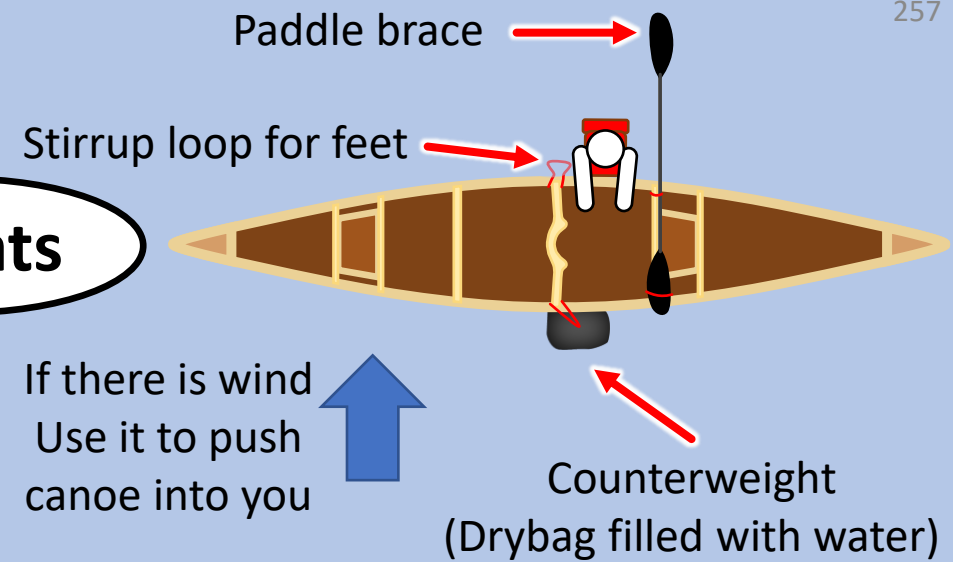




2

Optional:
A drybag makes a great fulcrum

Cheats



3

Hang on to canoe!
Don't let it float away

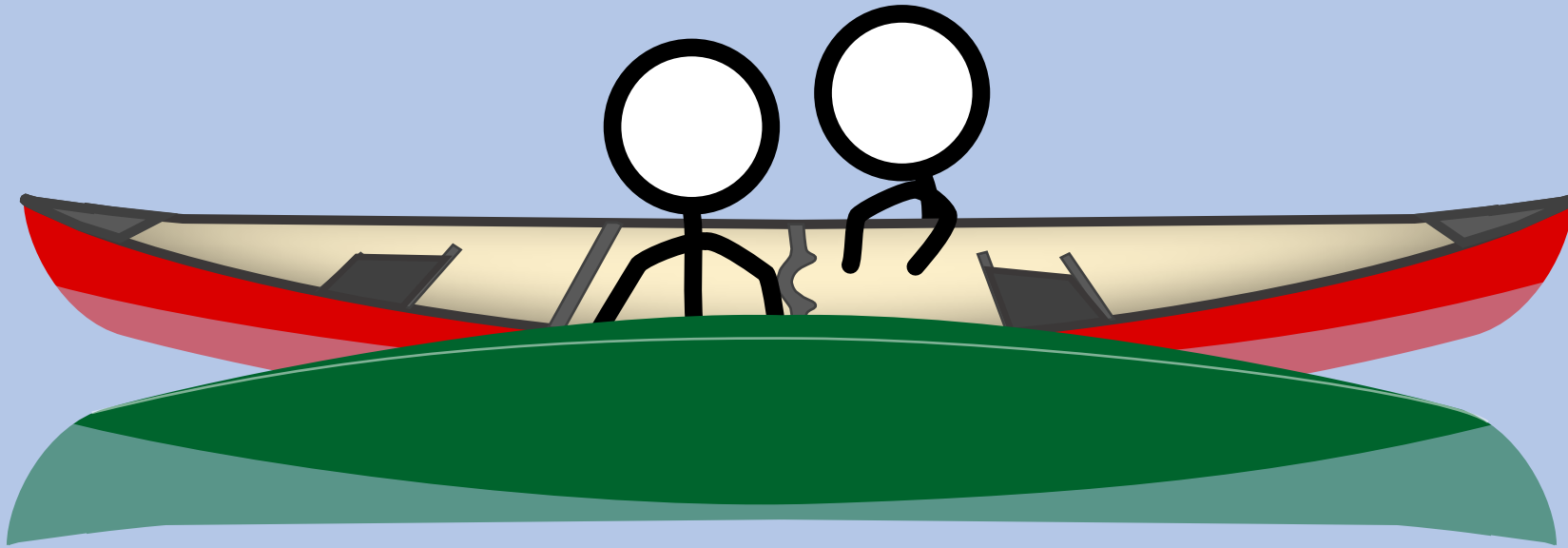
4

Hardest Step
Getting back in



Canoeing Hands On

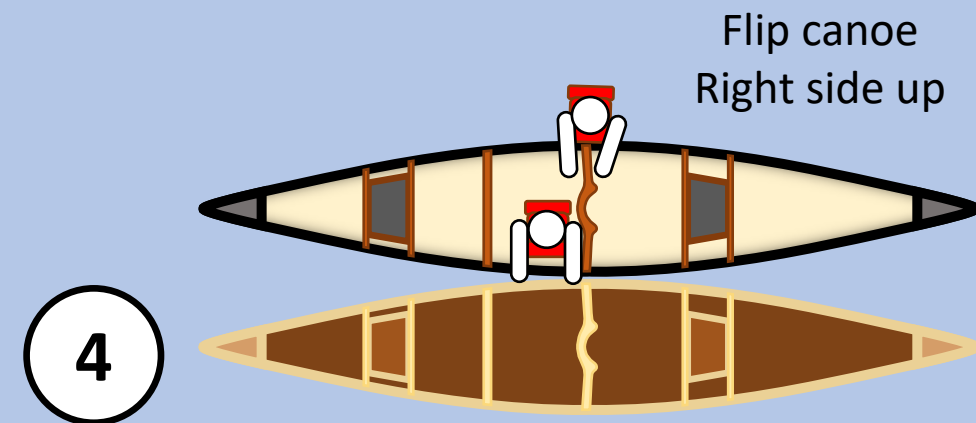
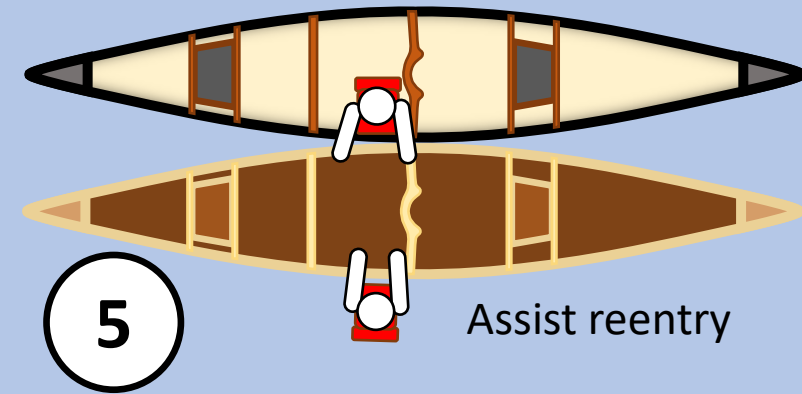
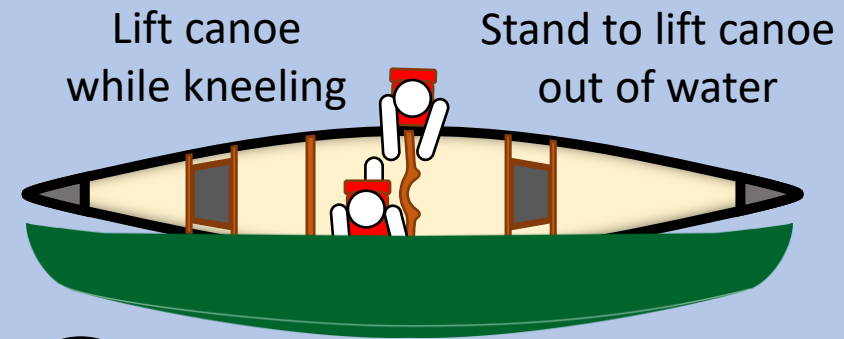
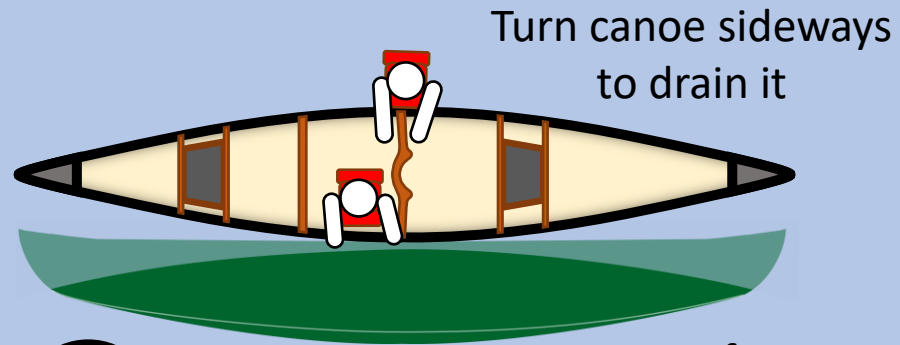
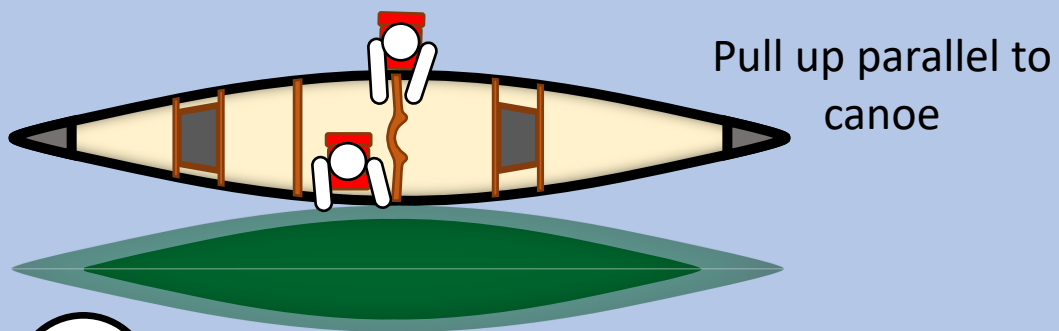
Parallel Rescue aka Curl



Complicated method requiring
strong arms and good sea legs

Rescuer pulls up canoe on its side and stand up
Curl canoe out of water or onto side air bags (if equipped)
Throw upper gunwale away to upright canoe

Only takes about 10 seconds to complete if done right

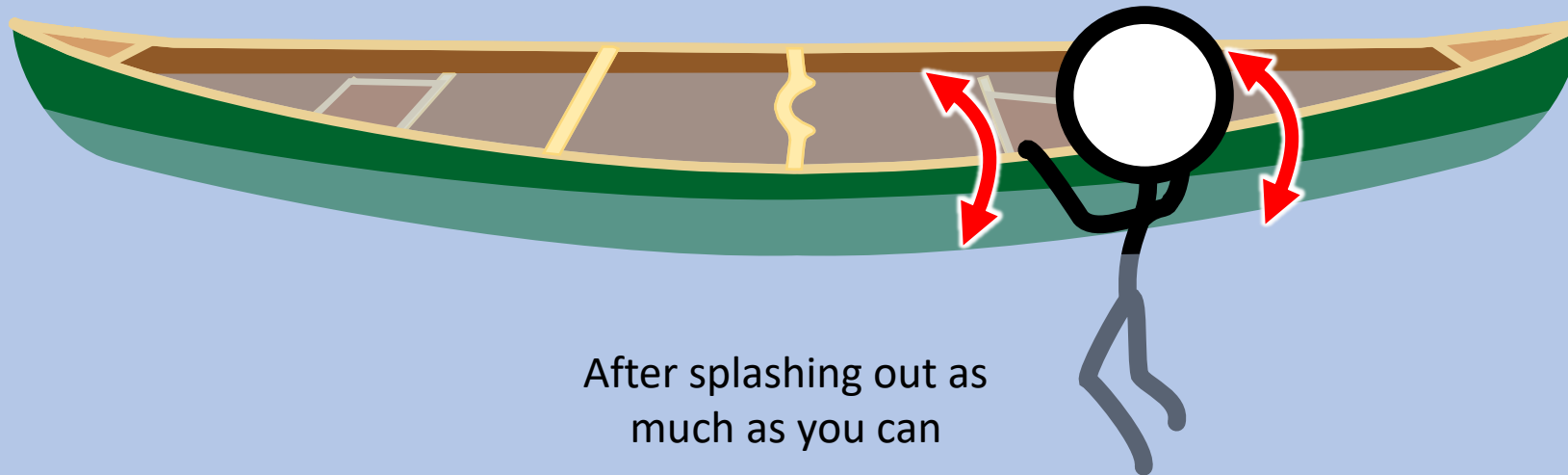


Canoeing Hands On

Shakeout and Reentry

This is harder than it
sounds and looks

Shake swamped canoe back and forth
to splash out water towards you

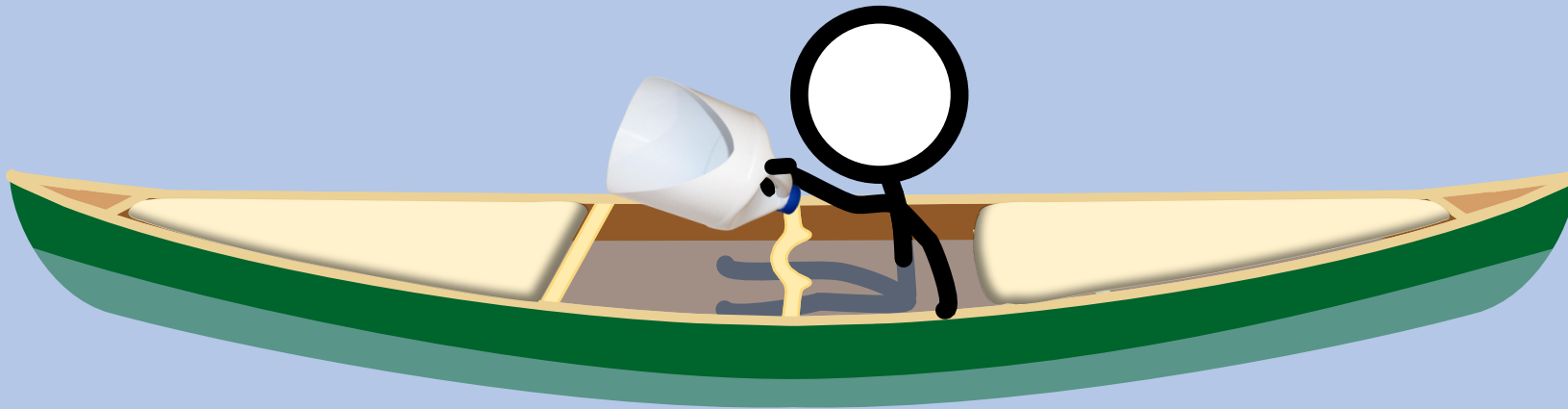


After splashing out as
much as you can

Renter canoe

Canoeing Hands On

Reentry and Bail



If you are equipped with enough
Float Bags, you can reenter and bail

Canoeing Hands On

Rescue a Swamped Canoe



www.youtube.com/watch?v=mg7T8nyV17Y

Canoeing Hands On

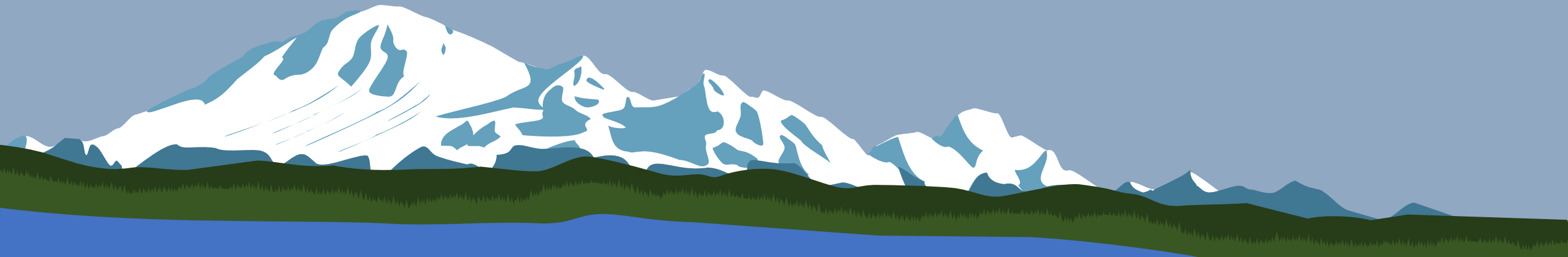
Rescue a Swamped Canoe



youtu.be/fGiWzRrM-us?t=118



Final Thoughts



Final Thoughts

Merit Badge Requirement Checklist

- ☐ 1-6 and 13 – Fill out [worksheet](#)
- ☐ 7-12 – Hands on Requirements



- ☐ Turn in complete [worksheet](#)

If you can't do a worksheet – contact counselor

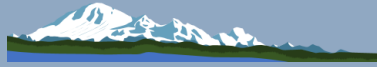
Final Thoughts

Safety

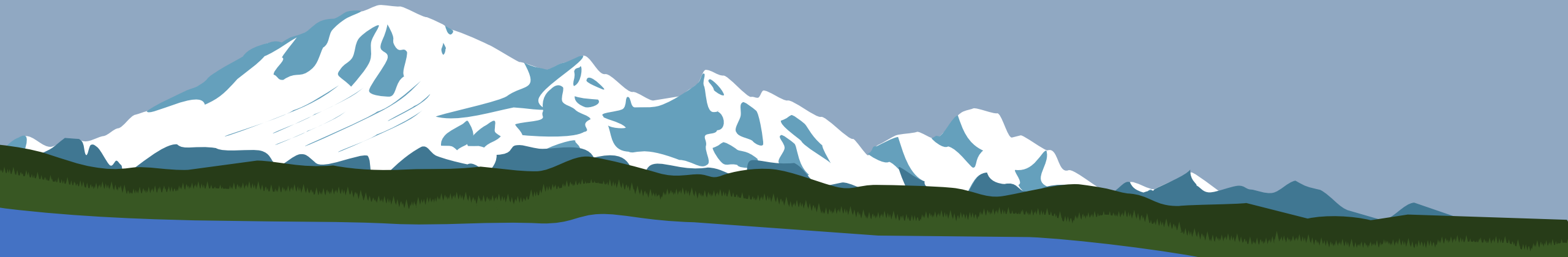
Hands On requirements **MUST** be completed
with supervision from a **PROPERLY TRAINED ADULT**

Final Thoughts

Looking for More?



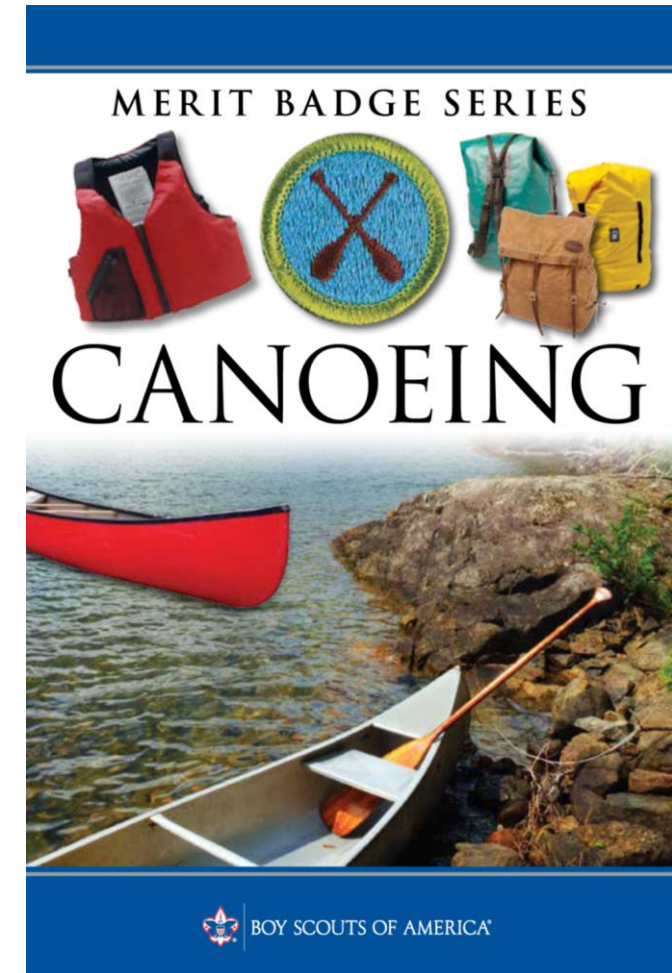
Resources



Resources

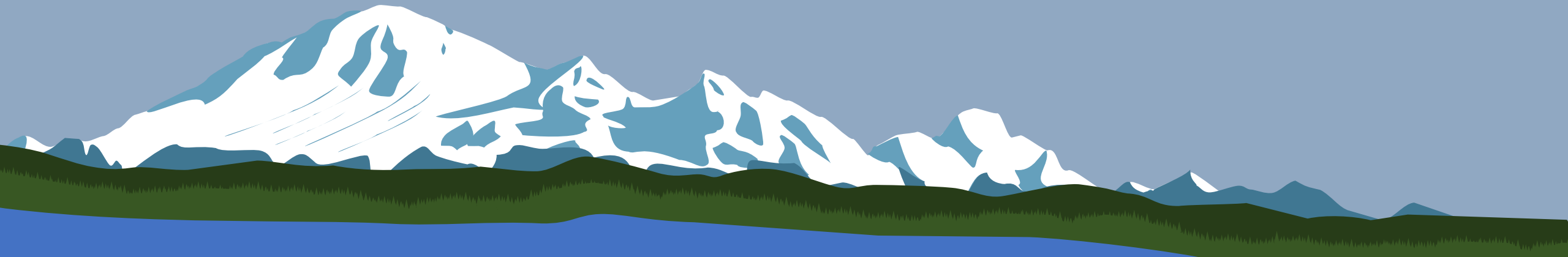
Resources

- Merit Badge Pamphlet is a great resource



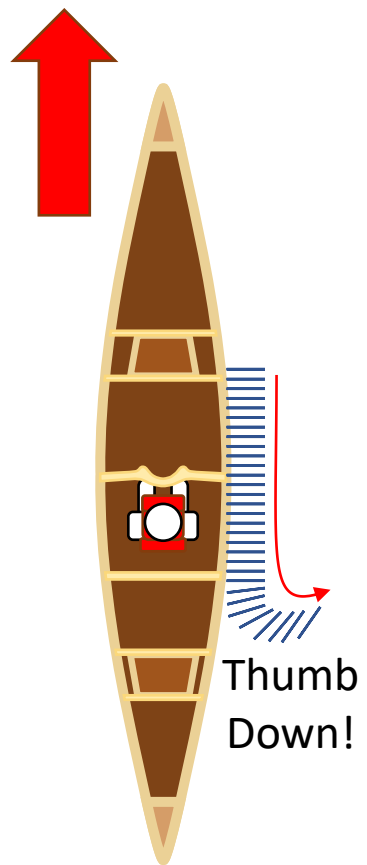


More Strokes



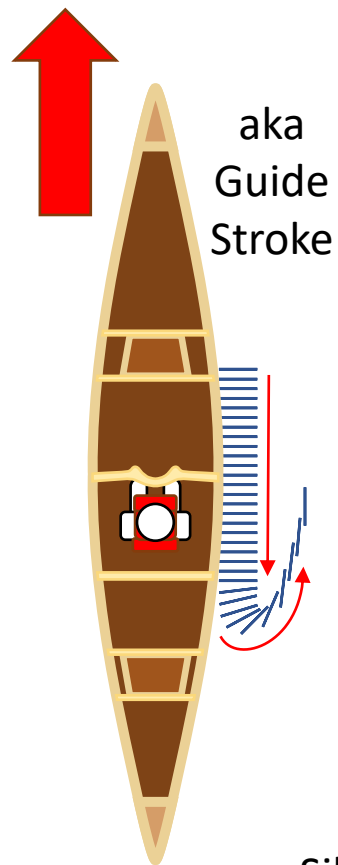
More Strokes

Other Solo Paddling Strokes – Correctional Strokes



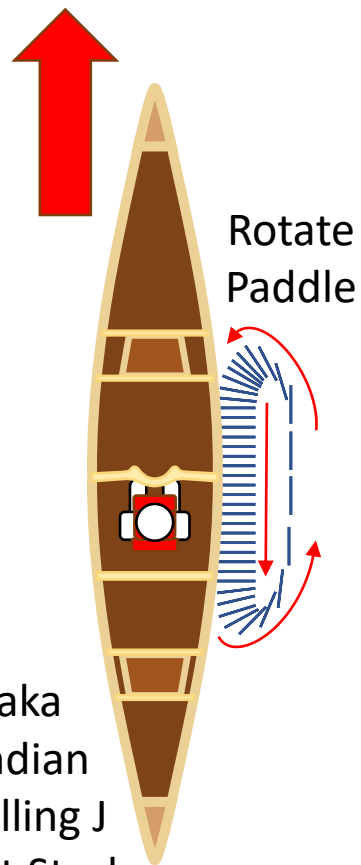
Thumb
Down!

J Stroke



aka
Guide
Stroke

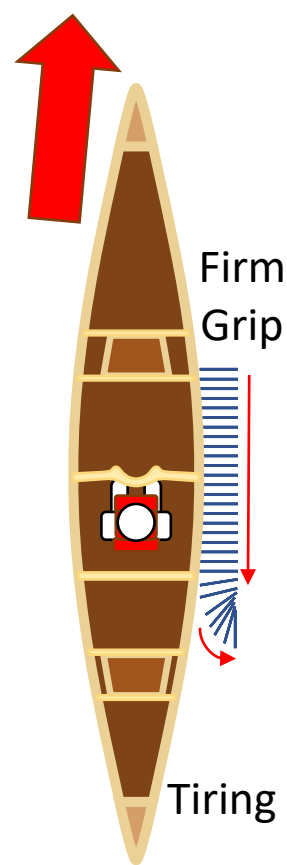
Canadian



Rotate
Paddle

aka
Indian
Rolling J
Silent Stroke

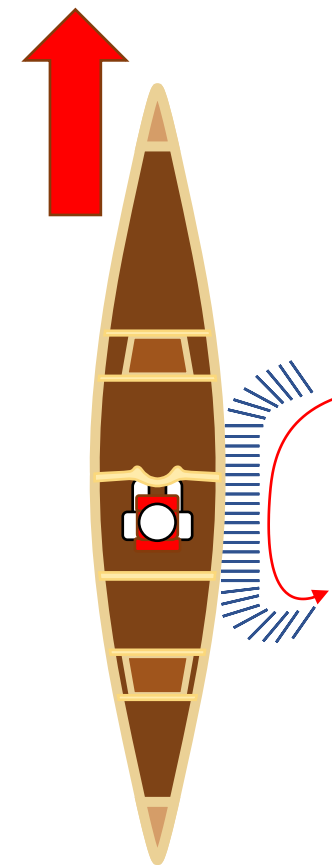
Stealth



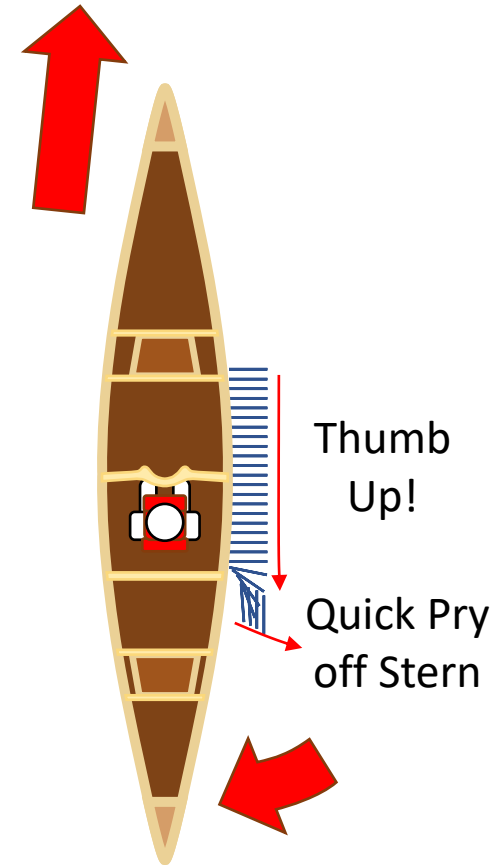
Firm
Grip

Tiring

Pitch



C Stroke



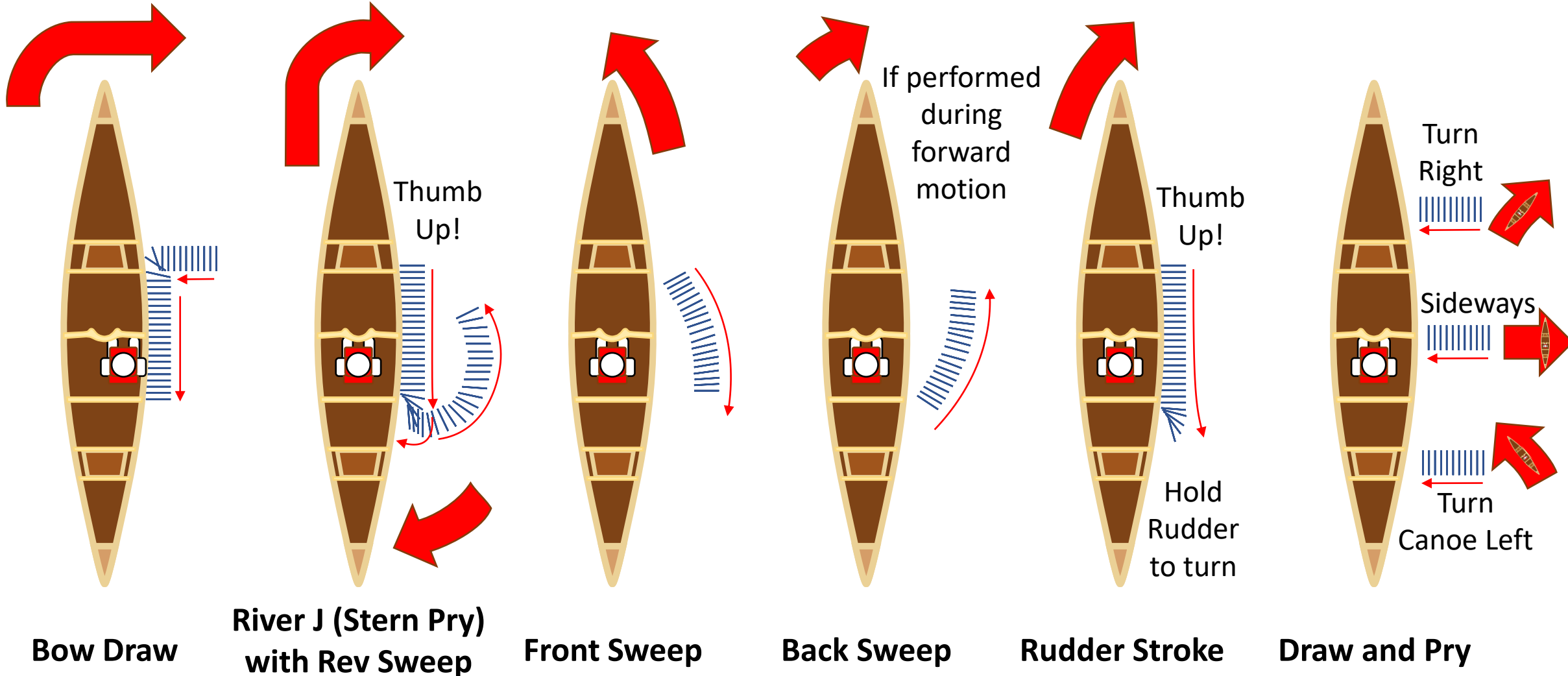
Thumb
Up!

Quick Pry
off Stern

Stern Pry

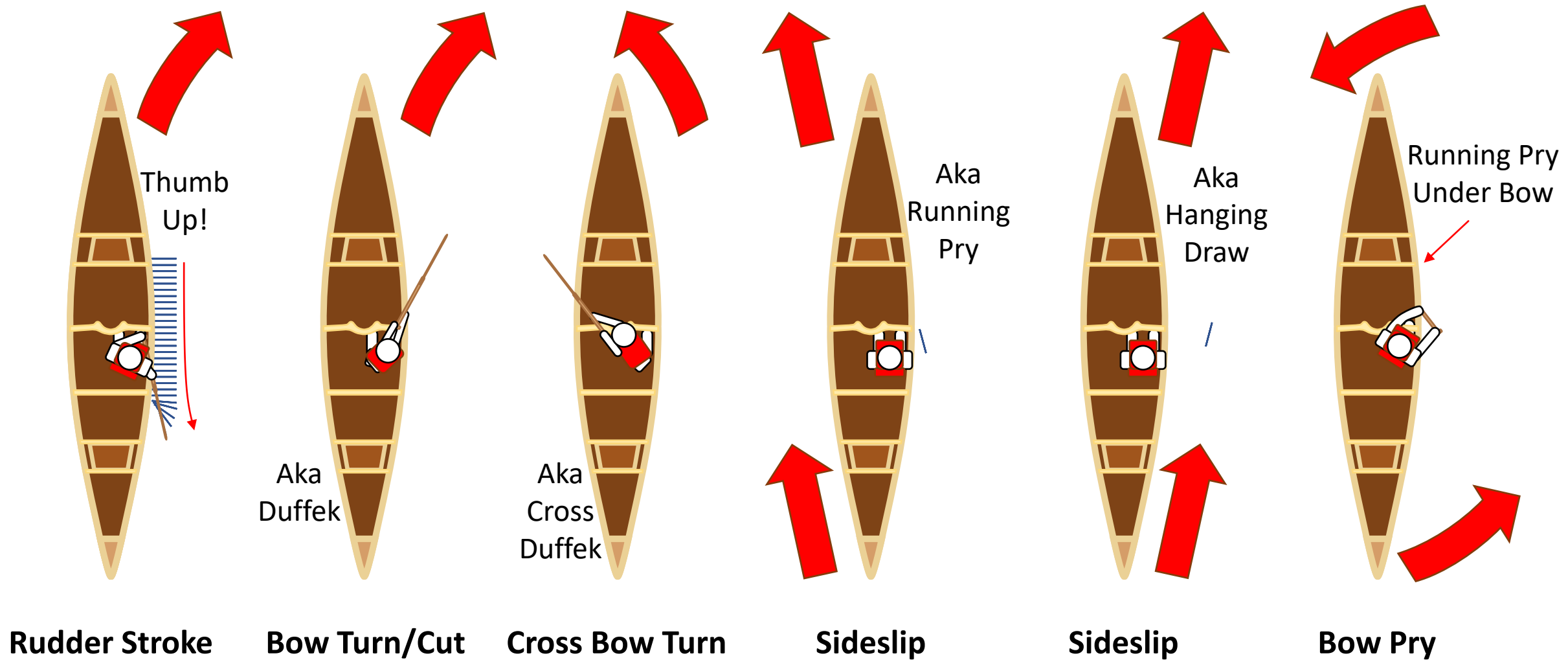
More Strokes

Other Solo Paddling Strokes – Turns



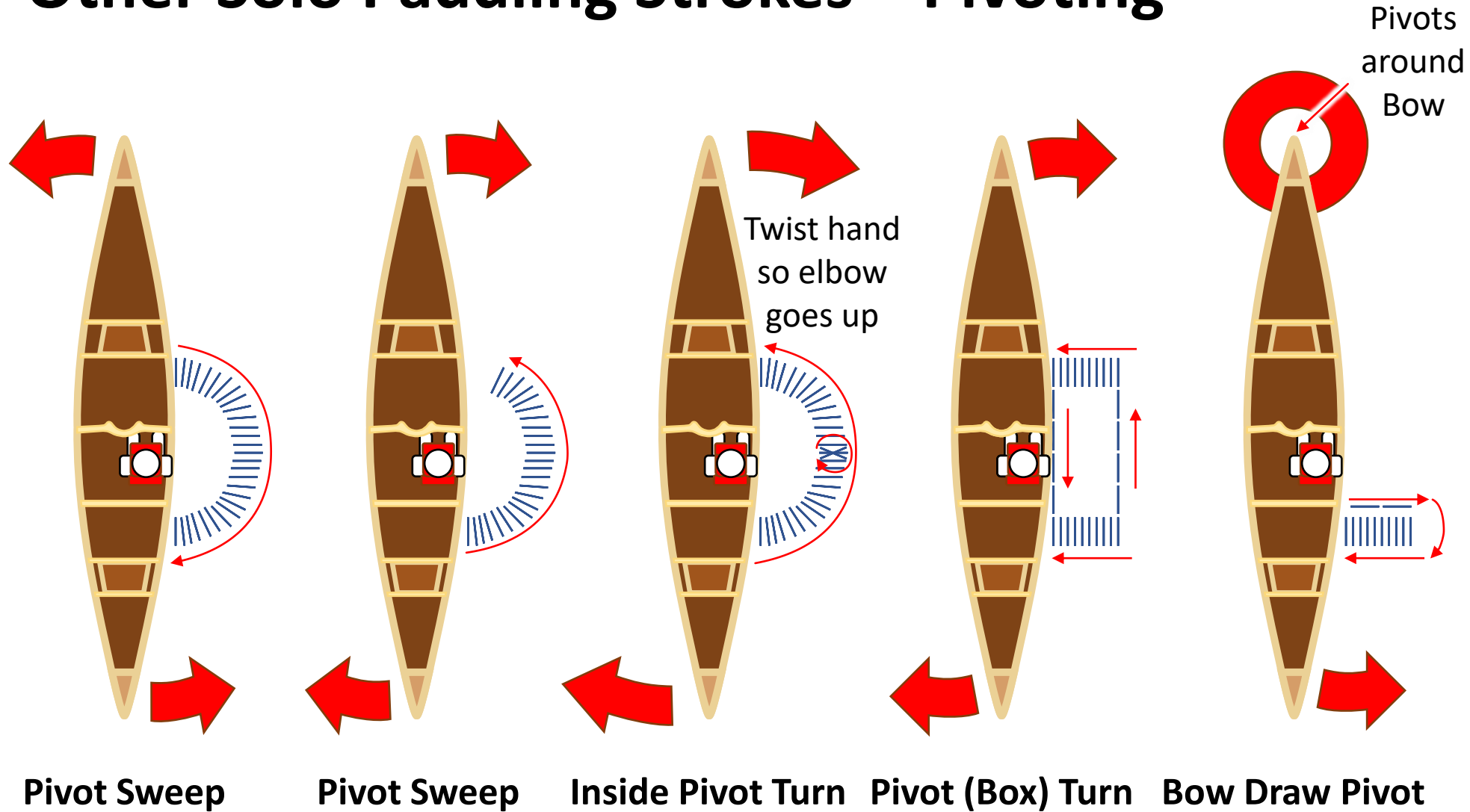
More Strokes

Other Solo Paddling Strokes – Rudders and Cuts



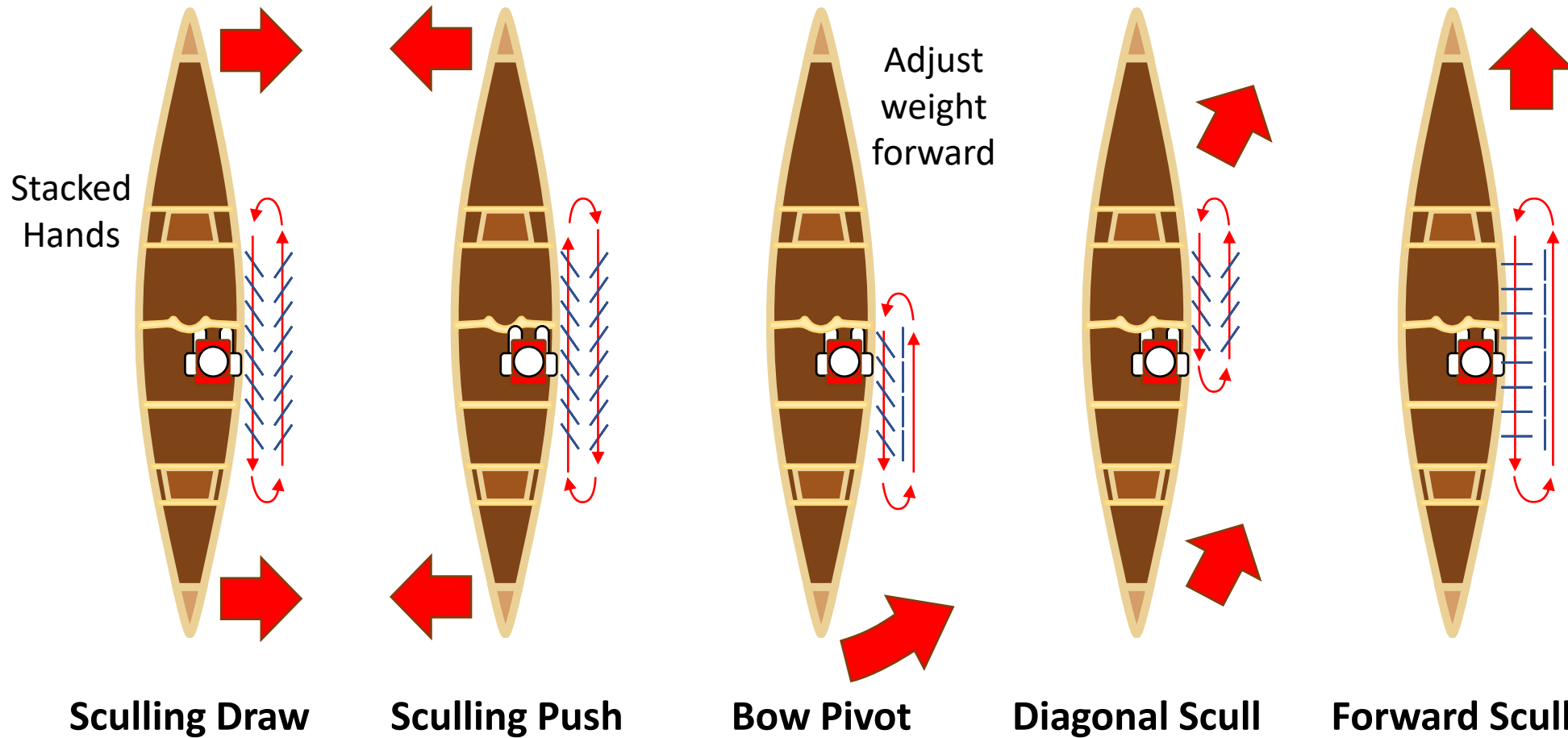
More Strokes

Other Solo Paddling Strokes – Pivoting



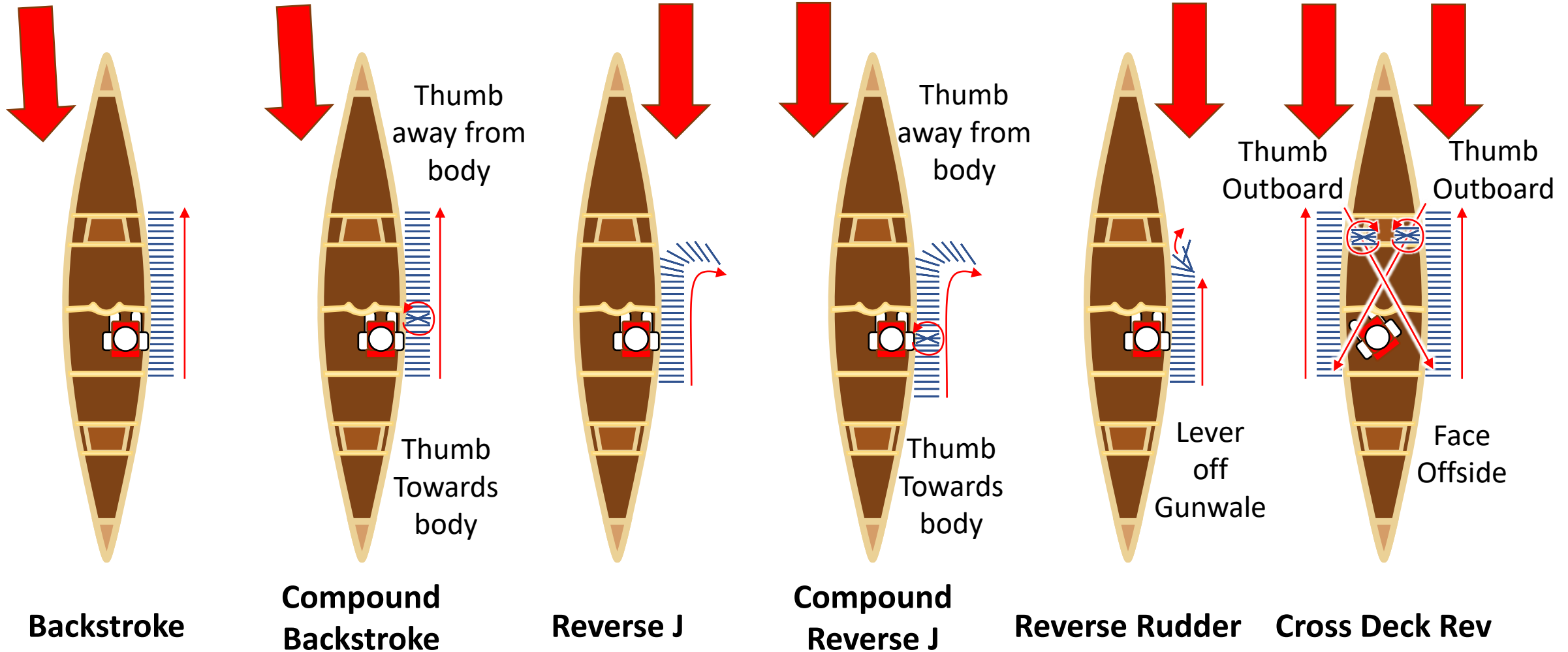
More Strokes

Other Solo Paddling Strokes - Sculling



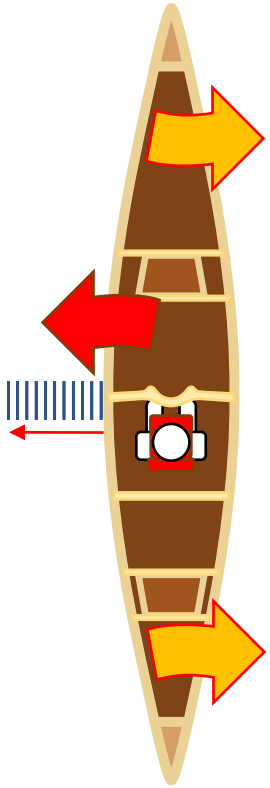
More Strokes

Other Solo Paddling Strokes - Reverse

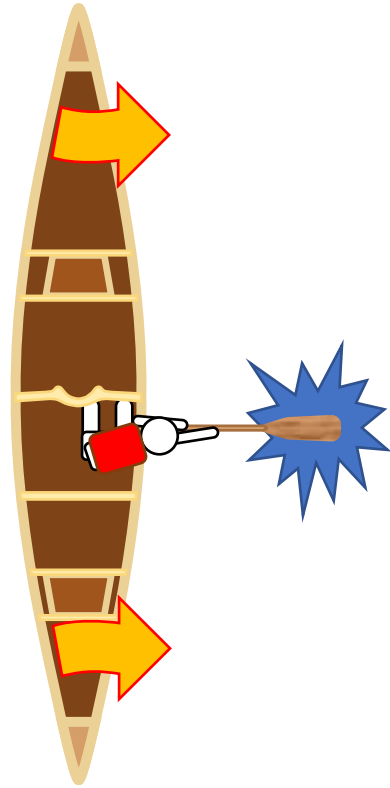


More Strokes

Other Solo Paddling Strokes – Capsizing



Righting Pry

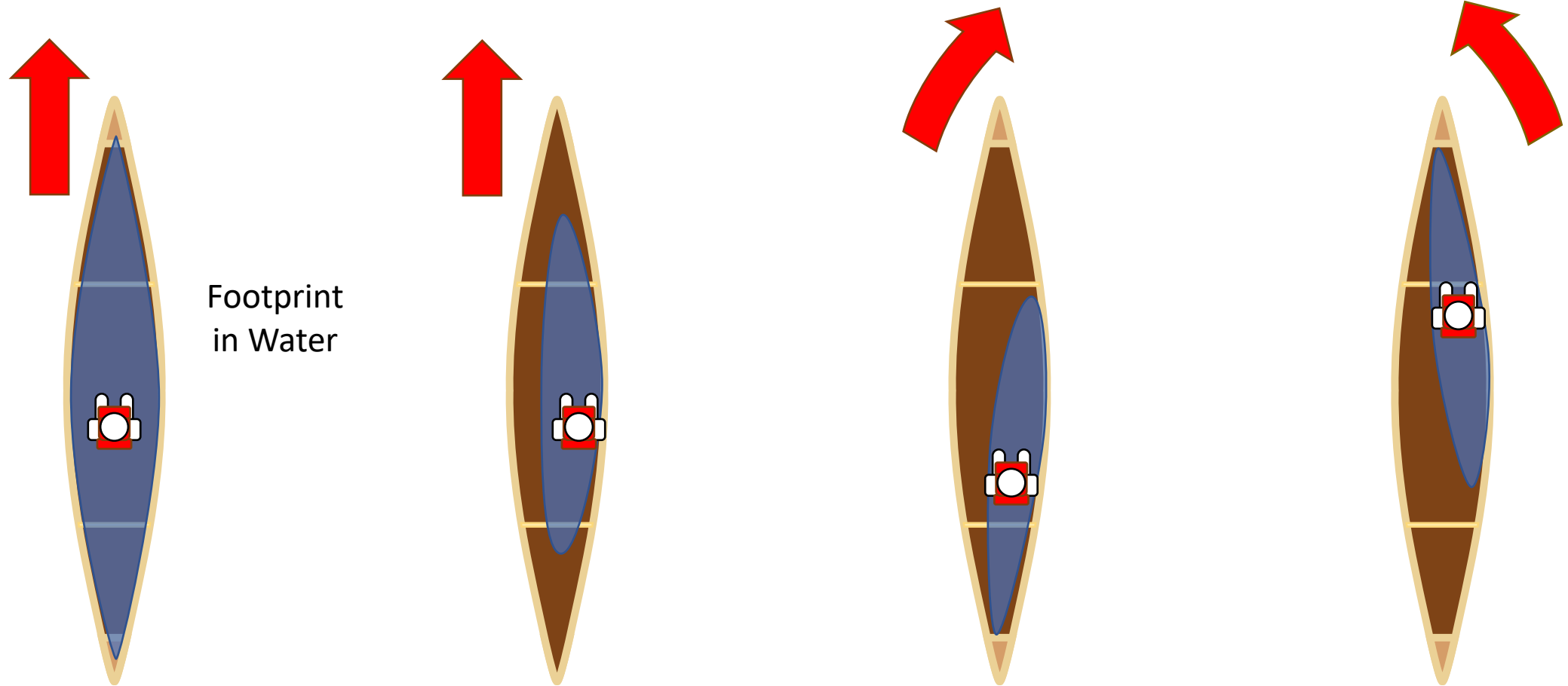


Low Brace

Canoe Rolls are FAR beyond the scope of this class/course/merit badge

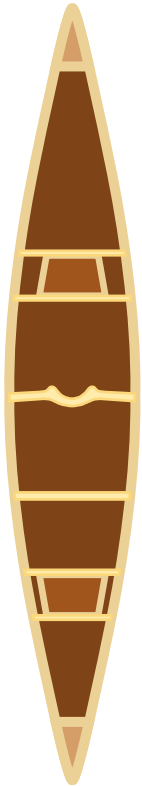
More Strokes

Solo Paddling – Edging

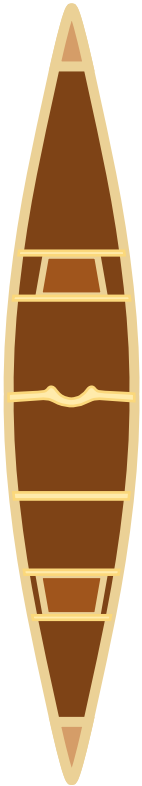


More Strokes

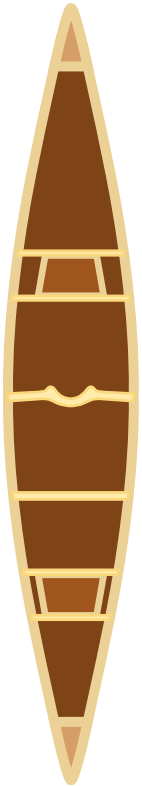
-



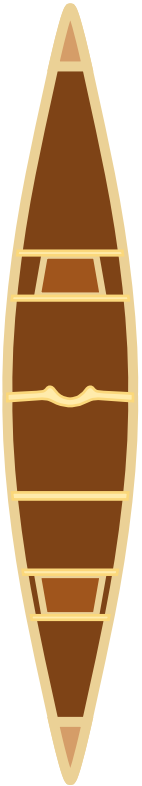
-



-



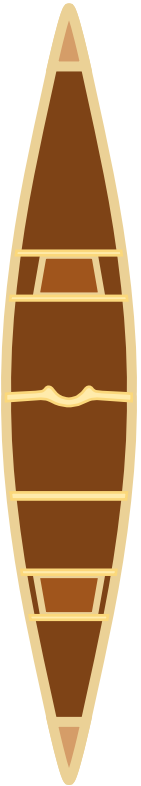
-



-



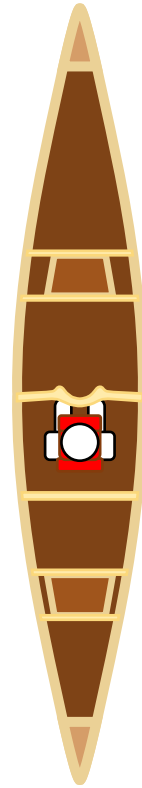
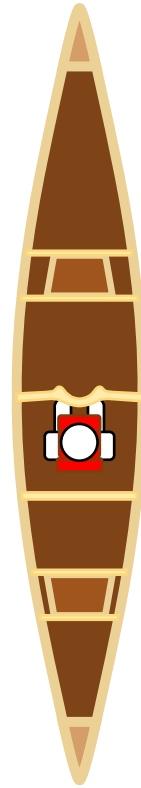
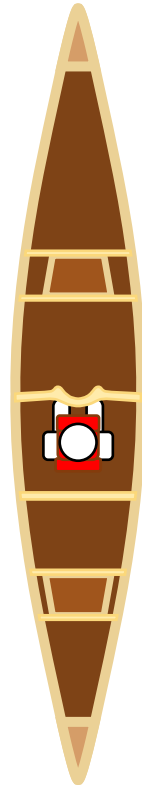
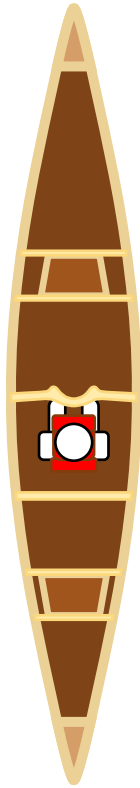
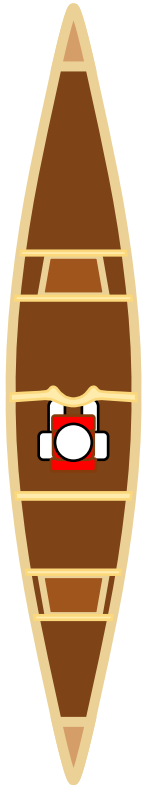
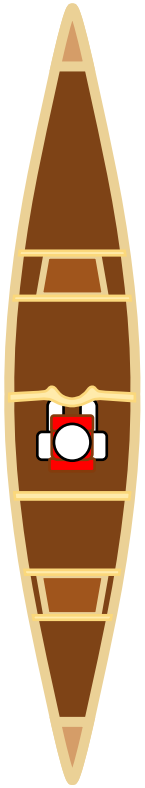
-



-

More Strokes

-



-

-

-

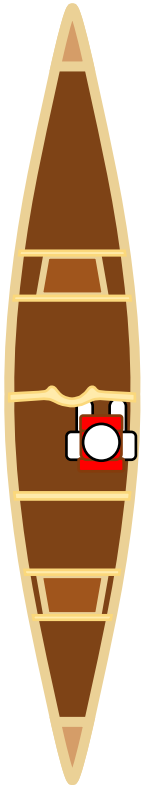
-

-

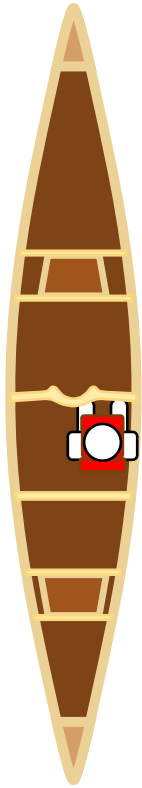
-

More Strokes

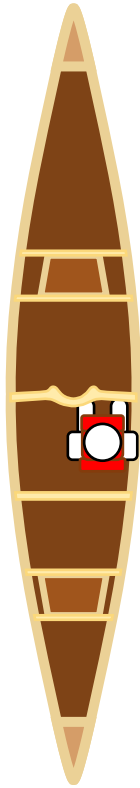
-



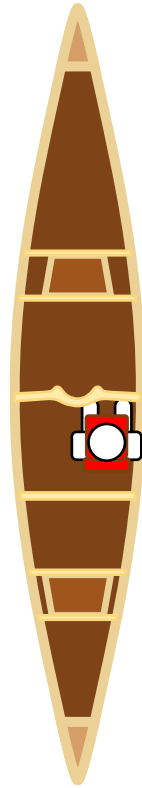
-



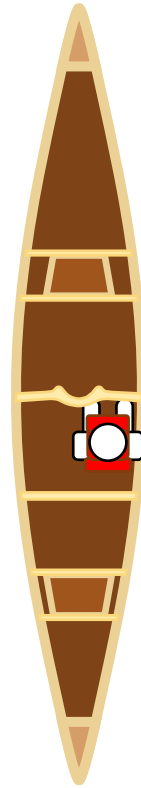
-



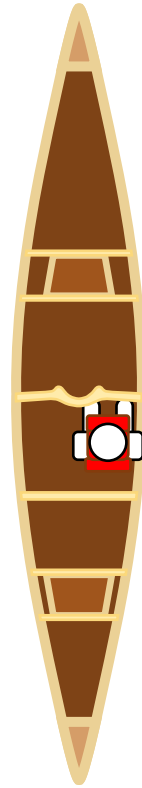
-



-



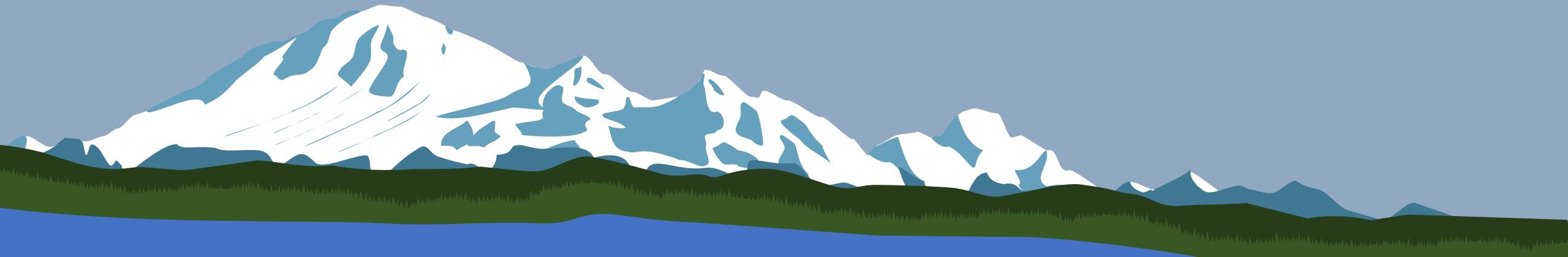
-



-



Canoeing Videos



Canoeing Videos

Videos

- The following are good videos to take a look at before heading out on the water to work with your Merit Badge Councilor
- Some of the information goes beyond the Merit Badge requirements... but they may provide a broader understanding of canoeing

Canoeing Videos

Center of Gravity



www.youtube.com/watch?v=ajWbZfpT-Qo

Canoeing Videos

Solo Canoe Paddling Tips



www.youtube.com/watch?v=4lx5dWz3rfE

Canoeing Videos

Canoe Recovery Solo



www.youtube.com/watch?v=EyM7Mot4NnU

Canoeing Videos

Canoe Recovery with Tandem Stern/Bow Reentry



www.youtube.com/watch?v=h8Se_uy1I2M

Canoeing Videos

Canoe Basics



www.youtube.com/watch?v=p3AgRxPqZXU

Canoeing Videos

Solo Canoeing Workshop



www.youtube.com/watch?v=kMx70wqMA9k

Canoeing Videos

Mastering the J Stroke: canoeing



www.youtube.com/watch?v=qmExaexsCAQ

Canoeing Videos

“J” Stroke vs Canadian vs Stealth Strokes



www.youtube.com/watch?v=dSVq11hcEIE

Canoeing Videos

Stealth Stroke



www.youtube.com/watch?v=0UIa8bRdOPc

Canoeing Videos

Taming the Canoe – More on Basics



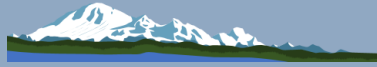
www.youtube.com/watch?v=7vp4IKHCjJM

Canoeing Videos

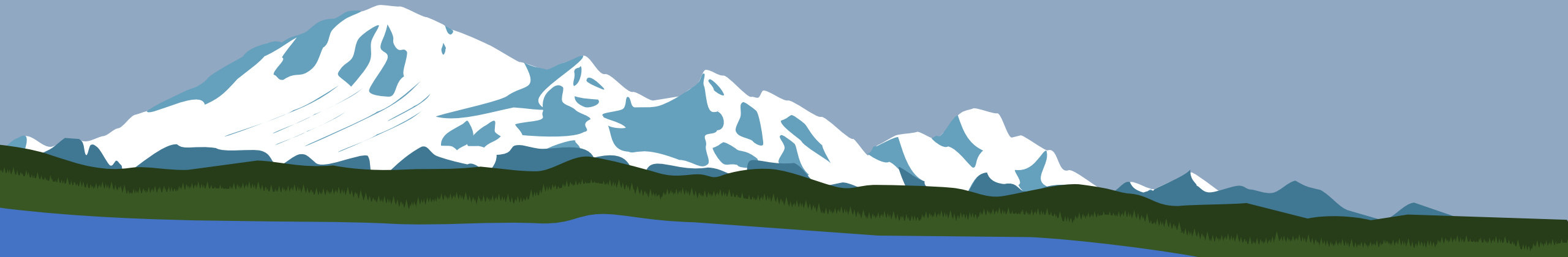
Stern Rudder



youtube.com/watch?v=bXY3HCoVeZs



Instructor's Corner



Instructor's Corner

Instructor's Corner

- Thank you for teaching our scouts this vital skill and helping them get their Canoeing Merit Badge.



Instructor's Corner

Instructor's Corner - Recommendations

- Depending on water temp, weather and your scouts
 - Capsizing canoes or getting wet may not be desirable
 - Plan for a really nice day where shivering isn't going to be a problem
 - Talk to your scouts
 - Tell them they will get wet and it will be cold
 - Give them a choice of wet training or just enjoying the water
 - You can always do the wet stuff later...honest
 - If your scouts aren't into getting wet
 - Just have some fun on the water without getting wet
 - Get them comfortable with the canoes
 - If they have a good time, they'll want more later

Instructor's Corner

Instructor's Corner - Recommendations

- With the proper amount of trained adult leaders
 - You can split the group into 2 plus groups
 - **Advanced Training Group** – aka Merit Badge Training Group
 - This group will get wet
 - This group will learn recovery skills
 - This group can get a merit badge
 - **Tour Group** – intro to canoeing group
 - This group will learn the basics of paddling
 - This group can consider the advanced class in the future

Instructor's Corner

Instructor's Corner - Recommendations

- Classroom portions of course can be completed
 - Before On-The-Water session(s) – preferred
 - After doing On-The-Water session(s) – works fine

Instructor's Corner

Instructor's Corner - Recommendations

- For On-The-Water Skills
 - Start with basics
 - Launching and Landing
 - Sitting vs kneeling
 - Easier to do tandem paddling before solo paddling
 - Tandem strokes to a set point on water (buoy)
 - Switch places – return
 - Solo
 - Paddle on one side to set distance and switch side - return

Instructor's Corner

Instructor's Corner - Recommendations

- For On-The-Water Skills
 - If **Hot** out -
 - Consider exit enter canoe in deep water after all tandem skills
 - Swap canoe and swim to shore
 - Unswamp canoe and switch to solo skills
 - This is a fun way to do it, is efficient and cools off scouts

Instructor's Corner

Instructor's Corner - Recommendations

- For On-The-Water Skills
 - If **Cold** out –
 - Save ALL getting wet requirements for very end
 - This keeps them dry longer
 - Less likely to get hypothermia
 - Less failed requirements due to being too cold
 - Better moral
 - Less sniveling

Instructor's Corner

Instructor's Corner - Recommendations

- For On-The-Water Skills
 - Save **Canoe Recovery** for the very end

AFTER ALL On-the-Water Skills

This requirement is physically and mentally exhausting for some scouts

Instructor's Corner

Instructor's Corner – Recommendations – Safety

Safety should obviously be the Number One Priority

Instructor's Corner

Instructor's Corner – Recommendations – Safety

- Safety is obviously the Number One Priority
- Although this class is often taught by a single youth at camp
 - HIGHLY recommended that you have ample Adult supervision
 - You may need skilled help performing an actual rescue
 - If you get in the water to demo a skill – you want adult(s) in boats

Instructor's Corner

Instructor's Corner – Recommendations – Safety

- Although this class is often taught by a single youth at camp
 - HIGHLY recommended that you have ample Adult supervision
 - You may need skilled help performing an actual rescue
 - If you get in the water to demo a skill
 - Have adult(s) in boats
 - They can see what you can't
 - They can quickly respond to an event
 - If a student needs to finish early
 - Extra adults can bring student back to shore
 - Course can safely continue
 - In case of a true emergency – qualified adult help is invaluable

Instructor's Corner

Instructor's Corner – Instructor Student Rescue



youtube.com/watch?v=Z_CEEgea41k

Instructor's Corner

Instructor's Corner – Student Stuck In Water



youtube.com/watch?v=iYdtOM_TeBk

Canoe Merit Badge Training

Campfire Canoe Talk

Before doing the following requirements, successfully complete the BSA swimmer test. Jump feet first into water over your head in depth, swim 75 yards or 75 meters in a strong manner using one or more of the following strokes: sidestroke, breaststroke, trudgen, or crawl; then swim 25 yards or 25 meters using an easy resting backstroke. The 100 yards or 100 meters must be swum continuously and include at least one sharp turn. After completing the swim, rest by floating.

Explain to your counselor the most likely hazards you may encounter while participating in canoeing activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

Review prevention, symptoms, and first-aid treatment for the following injuries or illnesses that could occur while canoeing:

- Blisters
- Cold-water shock + hypothermia
- Dehydration
- Heat-related illnesses
- Sunburn
- Sprains
- Strains

Discuss the BSA Safety Afloat policy. Tell how it applies to canoeing activities.

1. Qualified Supervision. 21 years +
2. Personal Health Review
3. Swimming Ability
 - Anyone not classified as a swimmer may ride in a canoe as a buddy with an adult swimmer who is skilled in that craft.
4. Personal Flotation Equipment
5. Buddy System
6. Skill Proficiency
 - Before embarking on a long float trip, paddlers should have either three hours of canoe training and supervised practice or should be able to successfully complete a 100-yard course and recover from a capsized.

Shore Talk

Name and point out the major parts of a canoe.

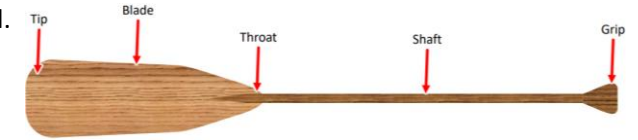
Describe how the length and shape of a canoe affect its performance.

Discuss the advantages and disadvantages of the different materials used to make canoes.

Discuss the following types of canoeing:

- Olympic canoe sprint
- Flatwater and river touring
- Outrigger
- Marathon
- Freestyle
- Whitewater
- Canoe poling

Name and point out the parts of a paddle. Explain the difference between a straight and bent-shaft paddle and when each is best used.



Demonstrate how to size correctly a paddle for a paddler in a sitting position and a kneeling position.

Discuss with your counselor the characteristics of life jackets most appropriate for canoeing and tell why a life jacket must always be worn while paddling.

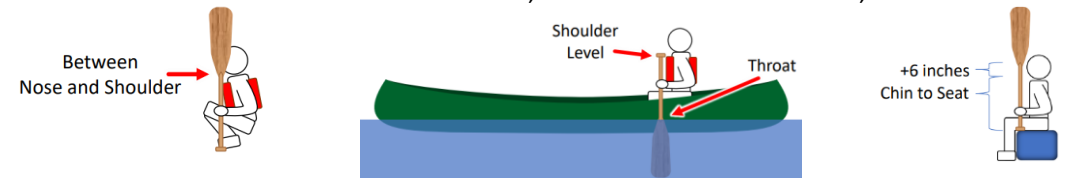
Demonstrate how to select and properly fit the correct size life jacket.

Discuss with your counselor the general care and maintenance of canoes, paddles, and other canoeing equipment.

Discuss what personal and group equipment would be appropriate for a canoe camping trip. Describe how personal and group equipment can be packed and protected from water.

Using the containers and packs from requirement 7a, demonstrate how to load and secure the containers and other equipment in the canoe.

Using appropriate knots, including a trucker's hitch, tautline hitch, and bowline, demonstrate how to secure a canoe to a vehicle or a trailer, or if these are not available, a rack on land.



Water Phase One - Tandem Canoeing

With a companion, use a properly equipped canoe to demonstrate the following:
Safely carry and launch the canoe from a dock or shore (both, if possible).
Safely land the canoe on a dock or shore (both, if possible) and return it to its proper storage location.

Demonstrate kneeling and sitting positions in a canoe and explain the proper use for each position.

Change places while afloat in the canoe.

With a companion, use a properly equipped canoe to demonstrate the following paddling strokes as both a bow and stern paddler:

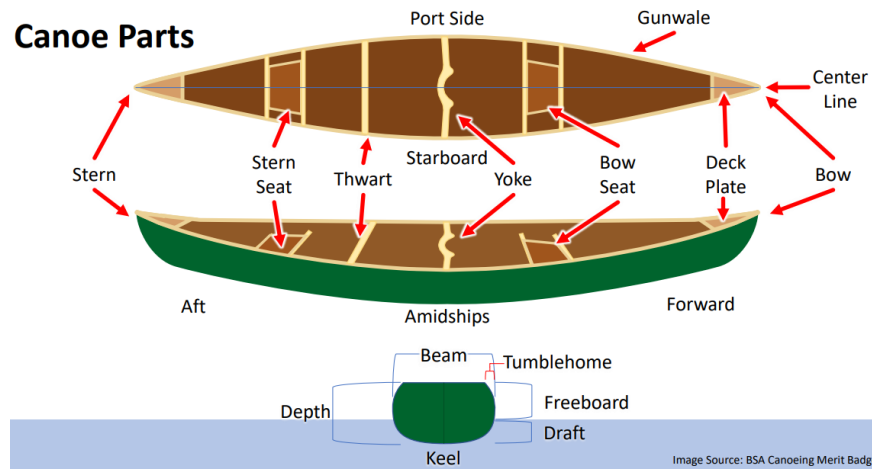
- Forward stroke
- Backstroke
- Draw

For stern paddling only:

- J-stroke
- Forward sweep
- Rudder stroke
- Pushaway
- Reverse sweep
- Stern pry

Move the canoe in a straight line for 50 yards. (both sides; Stern and Bow)

- Pivot or spin the canoe in either direction.
- Move the canoe sideways or abeam in either direction.
- Stop the canoe.
- Move the canoe in a straight line for 50 yards.



Water Phase Two - Solo Canoeing

Solo canoe:

Launch from shore or a pier (both, if possible).

Demonstrate on one side then the other

- forward stroke
- backstroke
- draw stroke
- pushaway stroke
- forward sweep
- reverse sweep
- J-stroke
- rudder stroke

canoeing to a target 50 yards away

- forward stroke
- rudder stroke
- stern pry

Make a proper landing at a dock or shore (both, if possible)

Water Phase Three – Rescues and Getting Wet

With a companion, use a properly equipped canoe to demonstrate the following:
In deep water, exit the canoe and get back in without capsizing.

In deep water, rescue a swamped canoe and its paddlers by emptying the swamped canoe and helping the paddlers safely reenter their boat without capsizing.

Safely perform a controlled capsizes of the canoe and demonstrate how staying with a capsized canoe will support both paddlers.

Swim, tow, or push a swamped canoe 50 feet to shallow water. In the shallow water, empty the swamped canoe and reenter it.

Store canoe properly (with assistance, if needed)