

Nautical Know How

Interest Project (Senior Only)



Introduction

Water, water, everywhere...ocean, bay, lake or stream. This interest project has been especially designed for girls to learn more about nautical skills used by sailors today. Many of these skills are used at GAM but, if your interested, you don't have to attend GAM to earn this very fun interest project patch!

You must complete at least three skill builders, one technology, one service, one career exploration and two from any of the categories. Activities #1 and #2 are required before doing any other activities in this section.

SKILL BUILDERS

1. *You're in the Swim*

Pass the preliminary swimming requirements in Safety-Wise or hold a current Red Cross Intermediate Certificate or the equivalent.

2. *On the Water* - Choose one (1) of the following:

Rowboat or Pullboat

Know three (3) types of rowboats and the proper use of each. Know the parts of a rowboat and oar. Know how to select oars of the proper length and where they should be placed. Know how to properly care for a rowboat and what safety equipment is needed. Demonstrate the following:

- Regular stroke, fisherman's stroke, backing stroke and shipping the oars.
- How to cast-off, board, land, debark, exchange seat positions and moor a rowboat properly from either a beach or a dock.
- Pivot turns and sculling.

Canoe

Know three (3) types of canoes, their proper use, and the advantages and disadvantages of each. Know the parts of a canoe and paddle. Know how to select a paddle and what safety equipment is needed. Demonstrate the following:

- Bow, draw, backwater, pushover, J stroke, forward and reverse sweeps, sculling and shipping the paddles.
- How to launch, board, land and debark from either a beach or a dock and exchange seat positions.
- Investigate the different rescue techniques and practice one.

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Catboat

Know the types of catboat rigging and the special uses of each. Know the parts of a catboat and the sail. Know how to properly care for a catboat and what safety equipment is needed. Demonstrate the following:

- How to rig a catboat correctly.
- How to launch, board, land, and debark from either a beach or a dock.
- Ability to sail a two (2) point course, tacking correctly.

3. *Highs and Lows*

What causes tides and tidal currents? What is meant by tidal intervals and how often do they occur? What are the special hazards to be aware of during a "rip tide" and what should you do if you are caught in one? On a local river, pond or lake know the speed, direction, and path of the "normal" water current(s). Know the direction of the "normal" wind current(s) and their effects on the body of water. Know what affect the tides and currents have on small craft.

4. *Flotsam and Jetsam*

Learn the parts of an old-fashioned anchor. Learn five (5) different types of anchors and when they are used. Learn five (5) different types of sailboats and what makes them different from one another. Know the meaning of the following terms:

starboard	port	head	galley
stern	bow	helm	rudder
rigging	aweight	draft	mast
fathom	leeward	windward	swab

5. *Marlinespike*

Name the parts of a rope. Learn the following knots as well as their uses on a boat:

bowline
clove hitch
round turn & two half hitches
square knot
timber hitch
belaying a line to a cleat
figure eight
taut line
sheet bend
fisherman's knot

6. **Advanced Marlinespike**

Learn the purpose or use of the following:

monkey's fist
turk's head
making a ditty bag
eye splice
back splice
installing a grommet
long splice
short splice
whipping a line

Learn how to do three (3) of the above.

7. **Down to the Sea in Ships**

Participate in a water related program sponsored by the Girl Scout Council of Orange County. Consult *Active Encounters* for a list of available activities.

TECHNOLOGY

1. **Finding Your Way**

Investigate the differences between the land compass and the marine compass. Learn the parts of the marine compass and how to "box" the compass. Learn about relative bearings. Learn how to read a chart.

OR

Explore the tradition of celestial navigation. Include myths, constellations, and legends that connect the sea and the stars. Share your discoveries with others. Find out what instruments are used for navigation and discover their origin.

2. **Whether the Weather**

Be able to recognize five (5) types of cloud formations, know what weather they bring, and what safety precautions should be followed. Know the instruments used for weather monitoring and prediction (i.e., barometer, psychrometer, anemometer and thermometer). Know what the Beaufort Scale is and when it is used.

3. **Ship's Clock**

Learn bell time and know how to ring the bell. Know the watch

system, how it operates, and why it is used. Learn the 24-hour clock.

4. **Maritime Messages**

Learn at least one (1) of the following methods of communication:

- Two flag semaphore
- Morse Code wig-wag (one flag)
- Morse Code by light, flasher, or signal key
- International Code Flags

SERVICE PROJECTS

1. Learn at least three (3) different types of chanteys (i.e., sea, river, lake or water song). Know their origin and how and when they were used. Share one of the chanteys you have learned.

OR

Learn about the following customs of the sea: double salute, piping the side, the ship's log, proper display of the flag aboard a ship at sea, boarding ceremony and School of the Crew (drill). Participate in a formal boarding ceremony, flag ceremony or demonstration of School of the Crew.

2. Share what you have learned about sea lore and nautical know how with younger Girl Scouts. Teach them at least one (1) of the skills you have learned.

3. Volunteer at a maritime museum.

4. Volunteer at the Girl Scout Council of Orange County boating program.

CAREER EXPLORATION

1. Investigate marine-related careers. This can include the Coast Guard, Navy, Merchant Marines, cruise industry, marine biology, or teaching swimming and boating.

2. Research the training needed to become a marine biologist, marine lawyer, maritime historian, or a member of the Navy or Coast Guard.

3. Learn more about organizations such as the U.S. Sailing Association.