

**SECTION 13****PO 121 – PERFORM BASIC ROPEWORK**

1. **Performance:** Perform Basic Ropework
2. **Conditions:**
  - a. Given:
    - (1) Spar / horizontal pole,
    - (2) Whipping twine,
    - (3) Line,
    - (4) Cutting tool,
    - (5) Heaving line,
    - (6) Supervision, and
    - (7) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet will:
  - a. tie the following knots, hitches and bends:
    - (1) reef knot,
    - (2) clove hitch,
    - (3) figure eight,
    - (4) sheet bend,
    - (5) bowline, and
    - (6) round turn and two half hitches;
  - b. complete a common whipping, and
  - c. coil and heave a line, to include:
    - (1) tying a heaving knot on a heaving line; and
    - (2) coiling and throwing a heaving line.
4. **Remarks:** Nil.
5. **Complementary Material:**
  - a. Complementary material under PO 121 is designed to enhance a cadet's basic ropework skills through a number of activities:
    - (1) EO C121.01 Whip The End of a Line Using a West Country Whipping.
    - (2) EO C121.02 Whip The End of a Line Using a Sailmaker's Whipping.

- (3) EO C121.03 Complete a Rolling Hitch.
  - (4) EO C121.04 Complete a Marling Hitch.
- b. Complementary training under PO 121 is limited to a total of five periods conducted during sessions or on a supported day. Corps' are not required to use all five periods.

**EO M121.01 – TIE KNOTS, BENDS AND HITCHES**

1. **Performance:** Tie Knots, Bends and Hitches
2. **Conditions:**
  - a. Given:
    - (1) One metre of line,
    - (2) Spar / horizontal pole,
    - (3) Supervision, and
    - (4) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall describe the use of and tie knots, bends and hitches, to include:
  - a. reef knot,
  - b. figure eight,
  - c. sheet bend,
  - d. bowline,
  - e. clove hitch, and
  - f. round turn and two half hitches.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain, demonstrate and have the cadets tie a reef and figure of eight knot.	Demonstration and Performance	20 min	C1-002 (pp. 45, 98,104, 112, 130, 132 and 162)
TP2	Explain, demonstrate and have the cadets tie a sheet bend and bowline.	Demonstration and Performance	20 min	C1-002 (pp. 45, 98,104, 112, 130, 132 and 162)
TP3	Explain, demonstrate and have the cadets tie a clove hitch and round turn and two half hitches.	Demonstration and Performance	20 min	C1-002 (pp. 45, 98,104, 112, 130, 132 and 162)
TP4	Practice tying knots, bends, and hitches.	In-Class Activity	50 min	A1-009 (p. 4-9)

5. **Time:**

a. Introduction / Conclusion:	10 min
b. Demonstration and Performance	60 min
c. In-Class Activity:	50 min
d. Total:	120 min

6. **Substantiation:**

- a. A demonstration and performance was chosen for TPs 1-3 as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.
- b. An in-class activity was chosen for TP 4 as it is an interactive way to provoke thought and stimulate interest among cadets about tying knots, bends and hitches.

7. **References:**

- a. A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa, ON.
- b. A1-009 A-CR-CCP-004/PT-001 D Cdts (1983). *Royal Canadian Sea Cadets Manual Volume 1*. Ottawa, ON.
- c. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.

8. **Training Aids:**

- a. A completed example of each knot, hitch and bend,
- b. Spar or horizontal pole,
- c. One piece of fabric to blindfold each cadet, and
- d. Line for demonstration purposes.

9. **Learning Aids:** One metre of line per cadet.

10. **Test Details:** N/A

11. **Remarks:** Nil.

**EO M121.02 – WHIP THE END OF A LINE USING A COMMON WHIPPING**

1. **Performance:** Whip the End of a Line Using a Common Whipping
2. **Conditions:**
  - a. Given:
    - (1) Whipping twine,
    - (2) Line,
    - (3) Cutting tool,
    - (4) Supervision, and
    - (5) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall whip the end of a line using a common whipping.

4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	List types of whippings.	Interactive Lecture	5 min	C1-002 (p. 73)
TP2	Describe the purpose of whippings.	Interactive Lecture	5 min	C1-002 (p. 73)
TP3	Explain, demonstrate and have the cadets whip the end of a line using a common whipping.	Demonstration and Performance	40 min	C1-002 (p. 73)

5. **Time:**

- |                                   |        |
|-----------------------------------|--------|
| a. Introduction / Conclusion:     | 10 min |
| b. Interactive Lecture:           | 10 min |
| c. Demonstration and Performance: | 40 min |
| d. Total:                         | 60 min |

6. **Substantiation:**

- a. An interactive lecture method was chosen for TP 1 and TP 2 to introduce the cadets to whipping the end of a line using a common whipping.
- b. A demonstration and performance was chosen for TP 3 as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.

7. **References:**

- a. A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa, ON.
- b. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.

8. **Training Aids:**

- a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for classroom / training area;
- b. One metre of line,
- c. Whipping twine,
- d. Examples of the whipping in several stages of completion,
- e. A completed whipped piece of line; and
- f. Cutting tool.

9. **Learning Aids:**

- a. One metre of whipping twine per cadet; and
- b. One meter of line per cadet.

10. **Test Details:** Nil.

11. **Remarks:** Nil.

**EO M121.03 – COIL AND HEAVE A LINE**

1. **Performance:** Coil and Heave a Line
2. **Conditions:**
  - a. Given:
    - (1) Heaving line,
    - (2) Supervision, and
    - (3) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall coil and heave a line, to include:
  - a. describing the characteristics of a heaving line;
  - b. tying a heaving knot on a heaving line; and
  - c. coiling and throwing a heaving line.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Describe the characteristics and uses of a heaving line.	Interactive Lecture	5 min	C1-003 (pp. 124, 165 and 158)
TP2	Explain, demonstrate and have the cadets coil a line.	Demonstration and Performance	15 min	C1-003 (p. 119)
TP3	Explain, demonstrate and have the cadets tie a heaving knot and throw a heaving line.	Demonstration and Performance	30 min	C1-003 (p. 165)

5. **Time:**
  - a. Introduction / Conclusion: 10 min
  - b. Interactive Lecture: 5 min
  - c. Demonstration and Performance: 45 min
  - d. Total: 60 min

6. **Substantiation:**
  - a. An interactive lecture was chosen for TP 1 to introduce the cadets to coiling and heaving a line.
  - b. A demonstration and performance was chosen for TPs 2 and 3 as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.

7. **References:** C1-003 ISBN 11-770973-5 (1972). *Admiralty Manual of Seamanship 1964 Volume 1*. London, England: Her Majesty's Stationery Office.
8. **Training Aids:**
  - a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for classroom / training area,
  - b. OHP transparency of a heaving knot,
  - c. OHP transparency of the steps to heaving a line,
  - d. Heaving line (one per five cadets),
  - e. Completed examples of a heaving knot, and
  - f. Targets.
9. **Learning Aids:** Heaving line (one per five cadets).
10. **Test Details:** N/A
11. **Remarks:** Nil.

**EO C121.01 – WHIP THE END OF A LINE USING A WEST COUNTRY WHIPPING**

1. **Performance:** Whip the End of a Line using a West Country Whipping
2. **Conditions:**
  - a. Given:
    - (1) Whipping twine,
    - (2) Line,
    - (3) Cutting tool,
    - (4) Supervision and
    - (5) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall whip the end of a line using a West Country Whipping.

4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain, demonstrate and have the cadets whip the end of a line using a west country whipping.	Interactive Lecture	25 min	C1-002 (p. 76)

5. **Time:**
  - a. Introduction / Conclusion: 5 min
  - b. Demonstration and Performance: 25 min
  - c. Total: 30 min
6. **Substantiation:** A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.
7. **References:**
  - a. A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa. ON.
  - b. C1-003 ISBN 11-770973-5 (1972). *Admiralty Manual of Seamanship 1964 Volume 1*, London, England: Her Majesty's Stationery Office.
  - c. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.
8. **Training Aids:**
  - a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for classroom / training area,
  - b. Diagram of a West Country whipping,

- c. Line,
- d. Whipping twine,
- e. Spar or horizontal pole, and
- f. Example of West Country Whipping.

9. **Learning Aids:**

- a. One meter of line per cadet; and
- b. Whipping twine.

10. **Test Details:** Nil.

11. **Remarks:** Nil.

**EO C121.02 – WHIP THE END OF A LINE USING A SAILMAKER’S WHIPPING**

1. **Performance:** Whip the End of a Line Using a Sailmaker’s Whipping
2. **Conditions:**
  - a. Given:
    - (1) Whipping twine,
    - (2) Line,
    - (3) Cutting tool,
    - (4) Supervision, and
    - (5) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall whip the end of a line using a sailmaker’s whipping.

4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain, demonstrate and have the cadets whip the end of a line using a sailmaker’s whipping.	Demonstration and Performance	50 min	A1-004 A1-009 C1-002 (p. 84)

5. **Time:**
  - a. Introduction / Conclusion: 10 min
  - b. Demonstration and Performance: 50 min
  - c. Total: 60 min
6. **Substantiation:** A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.
7. **References:**
  - a. A1-004 B-GN-181-105/FP-E00 Madison G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa, ON.
  - b. A1-009 A-CR-CCP-004/PT-001 D Cdts (1983). *Royal Canadian Sea Cadets Manual Volume 1*. Ottawa, ON.
  - c. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.

8. **Training Aids:**

- a. One metre of line,
- b. Whipping twine, and
- c. Example of completed Sailmaker's Whipping.

9. **Learning Aids:**

- a. One metre of line per cadet; and
- b. Whipping twine.

10. **Test Details:** N/A

11. **Remarks:** Schedule the two periods consecutively.

**EO C121.03 – COMPLETE A ROLLING HITCH**

1. **Performance:** Complete a Rolling Hitch
2. **Conditions:**
  - a. Given:
    - (1) One metre of line,
    - (2) Spar or pole,
    - (3) Supervision, and
    - (4) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall complete a rolling hitch.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain, demonstrate and have the cadets complete a rolling hitch.	Demonstration and Performance	25 min	A1-004 C1-002 (p. 130) C1-003 (p. 158)

5. **Time:**
  - a. Introduction / Conclusion: 5 min
  - b. Demonstration and Performance: 25 min
  - c. Total: 30 min
6. **Substantiation:** A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.
7. **References:**
  - a. A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa, ON.
  - b. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.
  - c. C1-003 ISBN 11-770973-5 (1972). *Admiralty Manual of Seamanship 1964 Volume 1*. London, England: Her Majesty's Stationery Office.
8. **Training Aids:**
  - a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for classroom / training area;
  - b. Diagram of a rolling hitch,

- c. Line,
- d. A spar or horizontal pole, and
- e. Example of completed rolling hitch.

9. **Learning Aids:**

- a. One metre of line per cadet; and
- b. Several spars, posts or chairs.

10. **Test Details:** Nil.

11. **Remarks:** Nil.

**EO C121.04 – COMPLETE A MARLING HITCH**

1. **Performance:** Complete a Marling Hitch
2. **Conditions:**
  - a. Given:
    - (1) Line,
    - (2) Spar or pole,
    - (3) Supervision, and
    - (4) Assistance as required.
  - b. Denied: Nil.
  - c. Environmental: Classroom or training area large enough to accommodate the entire group.
3. **Standard:** The cadet shall complete a marling hitch.
4. **Teaching Points:**

TP	Description	Method	Time	Refs
TP1	Explain, demonstrate and have the cadets complete a marling hitch.	Demonstration and Performance	25 min	A1-004 C1-002 C1-003 (p. 156)

5. **Time:**
  - a. Introduction / Conclusion: 5 min
  - b. Demonstration and Performance: 25 min
  - c. Total: 30 min
6. **Substantiation:** A demonstration and performance was chosen for this lesson as it allows the instructor to explain and demonstrate the skill the cadets are expected to acquire while providing an opportunity for the cadets to practice the skill under supervision.
7. **References:**
  - a. A1-004 B-GN-181-105/FP-E00 Maddison, G.R., Chief of Maritime Staff (1997). *CFCD 105 Fleet Seamanship Rigging and Procedures Manual*. Ottawa, ON.
  - b. C1-002 ISBN 0-7858-1446-9 Pawson, D. (2001). *Pocket Guide to Knots and Splices*. Edison, NJ: Charwell Books, Inc.
  - c. C1-003 ISBN 11-770973-5 (1972). *Admiralty Manual of Seamanship 1964 Volume 1*. London, England: Her Majesty's Stationery Office.
8. **Training Aids:**
  - a. Presentation aids (eg, whiteboard / flipchart / OHP / multimedia projector) appropriate for classroom / training area,
  - b. One metre of line,

- c. Spar or horizontal pole,
- d. Diagram of the marling hitch, and
- e. Example of completed marling hitch.

9. **Learning Aids:**

- a. One metre of line per cadet; and
- b. Several spars / posts.

10. **Test Details:** Nil

11. **Remarks:** Nil.